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An Analysis of *Concise Oxford English Dictionary*, Twelfth Edition

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1. Introduction

Two thousand eleven saw the publication of two concise dictionaries from Oxford University Press: *The Concise Oxford Dictionary of Current English*, 1911 FIRST EDITION (*COD*1)[1], and *Concise Oxford English Dictionary,* Twelfth Edition (*COED*12). The former is the centenary edition of the original, with a new introduction by David Crystal in the front matter. The latter is said to be the twelfth edition, following the eleventh (*COED*11) in 2004 and the tenth (*COD*10) in 1999[2].

The installments in this journal by Dohi et al. (2001, 2004, 2008) show that *COD*1 had a significant influence on the development of bilingual (English-Japanese) dictionaries, especially in the first half of the last century. That is why *COD*s were the focus of attention in the lexicographic circles in Japan; a detailed review of *COD*6 (1976) by Nakao et al. (1977) in this journal, and the one on *COD*8 (1990) by Higashi et al. (1992) in *International Journal of Lexicography*, for example. Little attention, in contrast, has been paid to *COD*s in Europe and the U.S. as far as the dictionary review is concerned.

The descriptions in *COED*12/11 and *COD*10 have been different from the previous editions', because *COED*12/11 and *COD*10 are compiled based on their voluminous cousin, *Oxford Dictionary of English* 3 (*ODE*3) (2010) and its previous editions *ODE*2 (2003) and *NODE* (1998) respectively. Stevenson's preface in *COED*12 says, "In producing this edition we have been able to draw on the language

research and analysis carried out for the third edition of the groundbreaking *Oxford Dictionary of English*, which was published in 2010. . . . the twelfth edition benefits from the innovative principles and methodology devised for its larger cousin" (vii).

*COED*12 contains Preface, One hundred years of the Concise Oxford Dictionary, Introduction, Guide to the use of the dictionary, Abbreviations and symbols, Note on trademarks and proprietary terms in the front matter, and Reference section in the middle. Our analysis will focus on *COED* text: the differences of description between the twelfth and its larger cousin, and, where necessary, the previous editions of *COD* or *COED*. This will enable us to make clearer what is new or omitted in the new version. Close attention will be paid to entries, pronunciation, sense description, examples, labels, grammar, usage notes, and etymology in the latest one. When necessary, reference will be made to its CD-ROM. It is crucial to bear in mind that *COD*s were, have been and are compiled for native speakers; or in other words, a monolingual general purpose dictionary (GPD) and not the type of monolingual learners' dictionaries (MLD).

2. Entries

In this section, we look at entries in *COED*12 in comparison with its predecessors, *COED*11 and *COED*10, and its "larger cousin," *ODE*3. As for the three editions of the *COED*s, our research is not limited to their print versions but also their CD-ROM counterparts[1].

2.1. Sampled data

The contents of our sample material is shown in Table 2.1, in which the scope of sampled pages and main entries is illustrated together with the number of main entries included in each dictionary. We first pick up main and run-on entries (labeled as DERIVATIVES, PHRASAL VERBS, and PHRASES) in six pages from every multiple of 100 (100, 200, 300, and so on) in the print version of *COED*12, which forms the basis of the scope of our sample material. Then we compare entries in four dictionaries within the same scope. Thus, we investigate main

and run-on entries in three editions of the *COED* print versions and the *COED* CD versions, and main entries in the *ODE*3 print version.

Table 2.1 Coverage of sample material in *COED*s and *ODE*3 print versions

Pages	Main Entries [from]	[to]	*COED*12	*COED*11	*COED*10	*ODE*3
100–105	**bailment**	**bank**[2]	197	196	197	329
200–205	**caliper**	**candlepower**	175	173	169	248
300–305	**confer**	**Conservative Judaism**	162	162	159	213
400–405	**different**	**DipHE**	176	176	176	249
500–505	**exocrine**	**extrados**	168	168	171	221
600–605	**GIF**	**glide**	199	198	190	276
700–705	**hyper**	**-ible**	179	179	177	217
800–805	**lamplight**	**last offices**	207	205	203	309
900–905	**methylbenzene**	**Middx**	243	241	236	348
1000–1005	**one-horse town**	**oppressive**	219	219	220	329
1100–1105	**playa**	**pluralism**	168	168	165	220
1200–1205	**receivership**	**red flag**	193	189	185	247
1300–1305	**sebaceous cyst**	**seldom**	185	185	187	271
1400–1405	**spur gear**	**stagger**	181	184	184	236
1500–1505	**third age**	**thumb nut**	175	177	170	284
1600–1605	**vaporetto**	**Venn diagram**	199	200	200	276
Total			3,026	3,020	2,989	4,273

The total number of main entries in each dictionary is shown in the bottom row of Table 2.1. As a result, in terms of the number of pages, our sample material (96 pages in total) corresponds to approximately 5.7% of the total number of pages (1,682 pages) in *COED*12. Thus, the estimated number of main entries in *COED*12 obtained by a simple calculation is 53,018. Note also that *COED*12 is 70% of the size of *ODE*3.

Table 2.2 shows the number of run-on entries picked up from the three editions of *COED*s within the scope of our sample material[2)].

Table 2.2 Number of run-on entries in *COED* print versions

	*COED*12	*COED*11	*COED*10
DERIVATIVES	1,212 (756)	1,277 (776)	1,271 (773)
PHRASAL VERBS	49 (6)	49 (6)	48 (6)
PHRASES	183 (94)	180 (93)	173 (88)
Total	1,444	1,506	1,492

Again, a simple calculation reveals that the number of run-on entries in *COED*12 is estimated to be 25,300. When we compare *COED*12 with *COED*11, we should note that, although the number of PHRASAL VERBS remains the same, and that of PHRASES increases by 3, the number of entries in the category DERIVATIVES actually decreases by 65 (approximately 5% of the derivative entries in *COED*11). We will return to this topic later in this section.

2.2. *COED*12 entries compared with entries in *COED*11 and *COED*10

2.2.1. Numerical entries and symbols

*COED*12 offers a list of entries which begin with Arabic numerals for the first time in its series. The list is given before the dictionary's A-Z part under the title "NUMERICAL ENTRIES." The following 12 entries are on the list:

3G, **4to**, **4WD**, **007**, **8vo**, **20/20**, **24/7**, **101**, **404**, **9/11**, **911**, **999**

Of these entries, **007**, **101**, **404**, **9/11**, **911**, and **999** are not included in *COED*11, thus newly added in *COED*12. **3G**, **4to**, **4WD**, **8vo**, and **24/7**[3)] move from the *COED*11 A-Z part to the *COED*12 Numerical Entries list—they are not in the *COED*12 A-Z part any more. **20/20** is given in the *COED*11 A-Z part as "**twenty-twenty** (also **20/20**)" and the same is true in the *COED*12; it is still in the A-Z part as well as in the Numerical Entries list. For reasons unknown, *COED*12 gives a cross-reference note "See also TWENTY-TWENTY, **TWENTY20**" only to this entry on the list.

Concerning the introduction of the Numerical Entries list, it must

be noted here that a few problems arise if we use the CD version of *COED*12. First, we cannot type numerals in the "quick search" slot, which serves as the standard query reception part. Second, although the alternative "advanced search" accepts numerals, since these entries have moved out of the A-Z part, we end up getting the "NOT FOUND" reply. The *COED*11 software also rejects numerals in its "quick search" slot, but we can look up entries with numerals using its "advanced search" function since these entries are in the A-Z part.

*COED*12 also gives a list of symbols before its A-Z body part. The list gives symbols and their meanings. In the main A-Z part, some entries give corresponding symbols as in **section mark** and **ditto**, but some other entries like **copyright**, **euro**, and **pound** are given without symbols. It is obvious that the best solution would be to illustrate every symbol in the main A-Z part in addition to providing a comprehensive list of symbols. If this cannot be achieved, and some symbols are missing in the A-Z part, then there should be some sort of cross-reference to the list, which gives the symbols themselves; then, the dictionary functions as an organic whole.

2.2.2. Main entries

As we have seen in Table 2.1, the number of main entries in *COED*12 differs little from that of *COED*11. Our word-to-word matching reveals that the same is true of the contents of the two dictionaries. If we are to exclude the cases of some orthographic differences like the use of uppercase/lowercase letters and the choice of hyphenated/separated/solid compounds, *COED*12 newly introduces the following 16 main entries within the scope of our sample material:

> **bajillion**, **bakkie**, **ballgown**, **call-in**, **cameraman**, **glamping**, **IBAN**, **landing page**, **lap steel**, **microblogging**, **microlending**, **microsite**, **recessionista**, **reconvict**, **redbush**, **redesignate**

cameraman is elevated from a run-on entry in **camera** under the category DERIVATIVES in *COED*11, thus the number of true newly-introduced entries is to be 15. **bajillion**, **glamping**, **landing page**,

and **recessionista** are not even included in *ODE*3, of which **glamping** and **recessionista** in particular are claimed to be new coinages with the notation of "C21" in its ORIGIN etymological information. Since *ODE*2 has **bakkie** and **cameraman**, it must be noted that 10 out of 16 entries above are those which are also newly added to *ODE*3. The following 8 entries are deleted in *COED*12, all of which, however, are still included in *ODE*3[4]:

balloon whisk, **IBA**, **microinstruction**, **SRA**, **SSAFA**, **SSRC**, **threequel**, **vapourware**

A note must be made on two entries, namely, **3G** and **B & B**, which are included in our sample material from *COED*11, but not in the one from *COED*12. The reason why **3G** disappears in our *COED*12 sample material is rather simple; it moves to the Numerical Entries list we have discussed earlier. The case of **B & B** needs some explanation. *COED*12 moves **B & B** from its *COED*11 position between **bandanna** and **bandbox** to the new one between **b** and **BA**; *COED*11 interprets "&" as "and" and lists entries with the symbol as if it is spelled "and," but *COED*12 considers "&" as one of the symbols, which usually come before the letter A when they are sorted on computers. Thus, **B & B** comes before **BA**, but **D and C**, for example, is listed between **dancing girl** and **dandelion**. When we briefly check how entries are sorted in other Oxford dictionaries at hand, the same method is employed in *Oxford Advanced American Dictionary for Learners of English* (2011. Print.), but not in *OALD*8, *Pocket Oxford English Dictionary* (10th ed. 2005. Print.), and *ODE*3[5]. In terms of main entries, *COED*12 introduces 16 new items and deletes 10 items, 2 of which, **3G** and **B & B**, still exist in *COED*12, but they are listed outside the scope of our sample material.

Some orthographic differences are observed between *COED*11 and *COED*12. For example, *COED*11 gives **Balthazar**, for "a very large wine bottle, equivalent in capacity to sixteen regular bottles," while *COED*12 gives **balthazar** for the same sense. Table 2.3 is a list of entries, which demonstrate some orthographic differences between

*COED*11 and *COED*12. It is intriguing to note that exactly the same orthographic preferences are employed in their larger cousins; thus, *COED*12 and *ODE*3 employ the same orthography, and the same is true with both *COED*11 and *ODE*2. In other words, *COED*12 follows the orthographic changes employed in the *ODE* series.

Table 2.3 Orthographic preferences between *COED*12 and *COED*11

*COED*12 & *ODE*3	*COED*11 & *ODE*2
balthazar	**Balthazar**
bandana	**bandanna**
conman	**con man**
exorcise	**exorcize**
expo	**Expo**
hypoallergenic	**hypo-allergenic**
lascar	**Lascar**
plea bargaining	**plea-bargaining**
secretary general	**Secretary General**
seed corn	**seedcorn**

2.2.3. Run-on entries

The three editions of *COED*s offer three types of run-on entries: PHRASAL VERBS, PHRASES, and DERIVATIVES. In terms of the entries in PHRASAL VERBS, we see no difference between *COED*12 and *COED*11[6]. As for PHRASES, all the *COED*11 entries in this category are also given in *COED*12, and the following 3 entries are newly added:

> **an open book** (in **open**), **not best pleased** (in **pleased**), **red mist** (in **red**)

an open book and **not best pleased** are not included in *ODE*2, and newly added to *ODE*3; but **red mist** is not given in either of the dictionaries[7].

Contrary to entries in these two categories, entries in DERIVATIVES show a rather remarkable change. *COED*12 excludes 70 entries of the *COED*11 derivatives, of which only 1 entry, **cameraman**, is elevated to the main entry in *COED*12. The deleted 69 entries are shown below:

balefulness (in **baleful**), **ballooner** (in **balloon**),
balneologist (in **balneology**), **conferrable** (in **confer**),
connaturally (in **connatural**), **connubially** (in **connubial**),
diffractively (in **diffract**), **diminishable** (in **diminish**),
exonerative (in **exonerate**), **expendably** (in **expendable**),
extemporariness (in **extemporary**),
extenuatory (in **extenuate**), **extoller** (in **extol**),
extolment (in **extol**), **extorter** (in **extort**), **giftable** (in **gift**),
gleety (in **gleet**), **hyperaesthetic** (in **hyperaesthesia**),
hyperimmunized (in **hyperimmune**),
hyperlipaemic (in **hyperlipaemia**),
hyperparasitic (in **hyperparasite**), **hypocorism** (in **hypocoristic**),
hypocycloidal (in **hypocycloid**), **hypogenic** (in **hypogene**),
hypogonadic (in **hypogonadism**),
hypoparathyroid (in **hypoparathyroidism**),
hypsographical (in **hypsography**), **lanceted** (in **lancet**),
languisher (in **languish**), **lappeted** (in **lappet**),
larcener (in **larceny**), **larkiness** (in **lark**[2]), **lassoer** (in **lasso**),
mezzotinter (in **mezzotint**), **miasmically** (in **miasma**),
micrographics (in **micrograph**), **micronizer** (in **micronize**),
microphagic (in **microphagous**),
microtechnological (in **microtechnology**),
micrurgical (in **micrurgy**), **ontogenically** (in **ontogeny**),
open-handedly (in **open-handed**),
operativeness (in **operative**), **recreantly** (in **recreant**),
recumbently (in **recumbent**), **recusance** (in **recusant**),
secundly (in **secund**), **secureness** (in **secure**),
sedentarily (in **sedentary**),
segmentalization (or **segmentalisation**) (in **segmental**),
segmentalize (or **segmentalise**) (in **segmental**),
segmentally (in **segmental**), **seicentist** (in **seicento**),
seismical (in **seismic**), **seismographical** (in **seismograph**),
squinter (in **squint**), **squiredom** (in **squire**),
stageability (in **stage**), **threnodist** (in **threnody**),
throttler (in **throttle**), **vaporable** (in **vaporize**),
vaporousness (in **vapour**), **vapourish** (in **vapour**),
variolar (in **variola**), **varletry** (in **varlet**),
vegetativeness (in **vegetative**),
velarize or **velarise** (in **velar**), **venerableness** (in **venerable**),

venereological (in **venereology**)

Of these 69 entries, **ballooner**, **extolment**, **giftable**, **larkiness**, and **lassoer** are included neither in *ODE*2 nor in *ODE*3[8], but the other 64 entries are present in *ODE*2 and absent in *ODE*3. That is, *COED*12 follows *ODE*3 in terms of the deletion of entries in the category DERIVATIVES. In our sample material, 5 derivatives are newly added to *COED*12:

campness (in **camp**[2]), **microblog** (in **microblogging**), **microlender** (in **microlending**), **reconviction** (in **reconvict**), **redesignation** (in **redesignate**)

Note that these derivatives, with the exception of **campness**, are headed by the newly introduced main entries. When we look at the changes between *COED*10 and *COED*11 in terms of run-on entries under the category DERIVATIVES, we see 14 *COED*10-only derivatives, that is, entries deleted in *COED*11, and 34 *COED*11-only entries, that is, entries newly added to *COED*11[9]. In light of this, it is noteworthy that as many as 69 derivatives from *COED*11 have been deleted.

2.3. *COED*12 print version and *COED*12 CD version

A comparison between the print version and the CD version of *COED*12 yields an interesting and somewhat unexpected result. As for *COED*10 and *COED*11, we see no differences, within our sample material, between the two media in terms of the contents of entries. Thus, we do not find any cases in which a certain entry found in the print version is absent in the CD version, and a certain entry in the CD version is absent in the print version; they include exactly the same entries. However, as for *COED*12, it turns out that the CD version contains entries which are not given in the print version. Thus, all entries in the print version are present in its CD counterpart, but not the other way around. The following 6 main entries in the CD version are missing in the print version:

balloon whisk, **IBA**, **microinstruction**, **SSRC**, **threequel**, **vapourware**

Notice that these entries form a subset of those *COED*11 main entries which are deleted in *COED*12. In the end, only 2 entries, that is, **SRA** and **SSAFA**, are excluded from the original *COED*11 main entries in the *COED*12 CD version.

Recall that 69 run-on entries in the DERIVATIVES category in *COED*11 are absent in the *COED*12 print version. However, 66 of them survive in the *COED*12 CD version, leaving only the following 3 entries missing:

extolment (in **extol**), **larkiness** (in **lark**[2]), **lassoer** (in **lasso**)

In the category of PHRASAL VERBS, we have "**plug the gap** (or **gaps**)" in **plug**, which is only found in the *COED*12 CD version. Unlike those run-on entries in DERIVATIVES mentioned above, this phrasal verb is not included in *COED*11. In fact, *ODE*2 does not have this entry, but *ODE*3 does. Thus, it should be noted that, while the *COED*12 print version contains exactly the same phrasal verbs as *COED*11, its CD version incorporates a new phrasal verb into it. As for entries in the category PHRASES, we find no difference between the two media.

2.4. *COED*12 entries compared with *ODE*3

As we have seen in Table 2.1, *ODE*3 contains 1.4 times as many main entries as *COED*12. A simple comparison between the entries in both dictionaries reveals that 1,082 *ODE*3 entries are missing in *COED*12[10]. About half of them, that is, 497 entries, begin with upper-case letters, which indicates that they are of proper-noun origin or proper names themselves.

However, when we consider the difference in the sizes of these two dictionaries, more intriguing are the reverse cases, in which entries included in *COED*12 are missing in *ODE*3. As we have already pointed out, the following 4 new entries in *COED*12 are not included in *ODE*3 (and not in *ODE*2, either):

bajillion, **glamping**, **landing page**, **recessionista**

The next 7 entries in *COED*12 are also members of *COED*11 main

entries, but missing in *ODE*3 (and not in *ODE*2, either). **GLB**, **glenohumeral**, and **microgreens**, in particular, are first introduced in *COED*11. Thus, we might be able to claim that these entries are somehow specific or characteristic to *COED*s:

GLB, **glenohumeral**, **microgreens**, **Connecticutter**, **open mind**, **pluke**, **stable door**

Four entries below are given in *COED*10, *COED*11, and *ODE*2, but not in *ODE*3. In other words, they are deleted in *ODE*3, but survive in *COED*12.

baldmoney, **balibuntal**, **cancelbot**, **conglobulate**

In Table 2.3, we have seen some cases in which *COED*12 observes orthographic preferences employed in *ODE*3, but it is not always the case as we can see in Table 2.4. Table 2.4 shows how certain entries are spelled differently in terms of hyphenation, singular/plural, and capitalization between the two dictionaries. Table 2.4[11] also shows that *COED*12 inherits its orthographic preferences from *COED*11, which changes the representation of some entries, that is, **player-piano**, **gipsy**, **plexiglas**, and **vaseline**, when it is revised from *COED*10.

Table 2.4 Orthographic preferences A (hyphenation, singular/plural, capitalization)

*COED*12	*ODE*3	*COED*11	*ODE*2	*COED*10
		Hyphenation		
extra-curricular	**extracurricular**	*COED*12	*COED*12	*COED*12
open concept	**open-concept**	*COED*12	N/A	N/A
player piano	**player-piano**	*COED*12	*ODE*3	*ODE*3
		Singular/Plural		
hypoglossal nerves	**hypoglossal nerve**	*COED*12	*ODE*3	*COED*12
vascular plants	**vascular plant**	*COED*12	*ODE*3	*COED*12
		Capitalization		
Gipsy	**gipsy**	*COED*12	*ODE*3	*ODE*3
open college	**Open College**	*COED*12	*ODE*3	*COED*12
Plexiglas	**plexiglas**	*COED*12	*ODE*3	*ODE*3
Vaseline	**vaseline**	*COED*12	*ODE*3	*ODE*3

In some cases where *ODE*3 gives two representations to its entries in the manner of "**REPRESENTATION 1** (also **REPRESENTATION 2**)," *COED*12 employs the *ODE*3's secondary option as its representation of entries, rather than the first ones. For example, in Table 2.5, you can see that *COED*12 uses the form of **ballpoint pen** as its entry orthography, while *ODE*3 provides the form as its secondary option and uses alternative **ballpoint** as the dictionary's primary representation of the entry. Note that *COED*11 changes the *COED*10 spelling of **oojah** to **oojamaflip**, and that *COED*12 inherits its orthographic preferences from *COED*11.

Table 2.5 Orthographic preferences B (alternative representation)

*COED*12	*ODE*3	*COED*11	*ODE*2	*COED*10
ballpoint pen	**ballpoint** (also **ballpoint pen**)	*COED*12	*ODE*3	*COED*12
calotype process	**calotype** (also **calotype process**)	*COED*12	*ODE*3	*COED*12
cambazola	**cambozola** (also **cambazola**)	*COED*12	*ODE*3	*COED*12
digastric muscle	**digastric** (also **digastric muscle**)	*COED*12	*ODE*3	*COED*12
oojamaflip	**oojah** (also **oojamaflip**)	*COED*12	*ODE*3	*ODE*3
open-topped	**open-top** (also **open-topped**)	*COED*12	*ODE*3	*COED*12
thornback ray	**thornback** (also **thornback ray**)	*COED*12	*ODE*3	*COED*12

Unlike *ODE*3, *COED*12 does not contain the exact names of countries and the places in its A-Z body part[12]. Instead, it gives corresponding adjectives as its main entries, which results in differences in the items on the lists of main entries in each dictionary. As you can see in Table 2.6, *COED*12 offers the adjective **Bangladeshi**, while *ODE*3 gives the corresponding noun form **Bangladesh** as their main entries. In our sample material, we identify 14 instances of such pairs.

Table 2.6 Treatment of names of countries and places

*COED*12	*ODE*3	
Main entry	Main entry	Run-on entry
Balkan	**Balkans**	**Balkan**
Bangladeshi	**Bangladesh**	**Bangladeshi**
Cameroonian	**Cameroon**	**Cameroonian**
Canaanite	**Canaan**	**Canaanite**
Canadian	**Canada**	**Canadian**
Ibizan	**Ibiza**	**Ibizan**
Laotian	**Laos**	**Laotian**
Laplander	**Lapland**	**Laplander**
Mexican	**Mexico**	**Mexican**
Michigander	**Michigan**	**Michigander**
Ontarian	**Ontario**	**Ontarian**
Sri Lankan	**Sri Lanka**	**Sri Lankan**
Thracian	**Thrace**	**Thracian**
Venezuelan	**Venezuela**	**Venezuelan**

Other than the entries concerning the names of the countries and the places, we confirm 3 *COED*12 main entries which are run-on entries in *ODE*3 (Table 2.7)[13].

Table 2.7 *COED*12 main entries treated as run-on entries in *ODE*3

*COED*12	*ODE*3
Midas touch	PHRASES in **Midas**
one-horse town	PHRASES in **one-horse**
thuggish	DERIVATIVES in **thug**

2.5. Summary

In this section, we have examined entries in *COED*12 mainly from the following three perspectives: (1) comparison between *COED*12 and its predecessors, *COED*10 and *COED*11 (Section 2.2); (2) comparison between the *COED*12 print version and its CD counterpart (Section 2.3); (3) comparison between *COED*12 and *ODE*3 (Section 2.4).

In Section 2.2, we have shown that word-by-word matching among entries in *COED*12, *COED*11 and *COED*10 highlights the deletion of

*COED*11 derivatives in *COED*12. Admitting that *COED*11 examined in this section is a revised edition, that is, it could contain more entries than its original edition, we may, nonetheless, be able to claim that we have seen no big differences between *COED*11 and *COED*12 in terms of the members of main entries. In addition, when we look at run-on entries in *COED*11 and *COED*12, our research has revealed that the situation concerning phrasal verbs and phrases is basically the same as main entries, and we do not find any characteristic differences between the two dictionaries. However, a considerable change is observed in derivatives; we have seen that as many as 69 *COED*11 entries are deleted in *COED*12.

In Section 2.3, we have claimed that *COED*12 CD version shows a striking contrast to the CD versions of *COED*11 and *COED*10 in that it contains entries which are not listed in its print counterpart. In terms of the constituents of entries, the print versions and the CD versions provide exactly the same contents as for *COED*10 and *COED*11. Contrary to our expectation, *COED*12 lists different entries between the two media, and interestingly, the CD version keeps nearly all the entries from *COED*11 which are deleted in its printed counterpart.

In Section 2.4, we have indicated that, in relation to *ODE*3, *COED*12 displays two opposite attitudes toward entries it contains. On one hand, we see some signs in which *COED*12 follows *ODE*3. More than half of the new main entries in *COED*12 are those which are also newly added to *ODE*3, and *COED*12 modifies representation of some *COED*11 entries as if it just imitates the orthographic changes from *ODE*2 to *ODE*3. Moreover, out of 69 deleted derivatives in *COED*12, 64 entries are also deleted in *ODE*3; the remaining 5 entries are not included in *ODE*2 in the first place. On the other hand, however, in some other cases, we also see that *COED*12 does have a policy of its own. Thus, it actually contains entries which are not included in *ODE*3, and all the deleted main entries in *COED*12 still exist in *ODE*3. In addition to that, the orthographic preferences are not identical between the two, as we have seen in Tables 2.4 and 2.5. In all as far as the comparison of entries between *COED*12 and *ODE*3 is concerned, although the total

number of entries in *COED*12 is way surpassed by *ODE*3, it is clear that *COED*12 is not just an abridged version of *ODE*3.

(Section 2 by Osada)

3. Pronunciation

This section first reviews how the phonetic transcription schemata used in the *COD*s have changed since the first edition was published in 1911; next, in the latter half, it describes and discusses the phonetic transcription schema used in *COED*12 in comparison with those of the previous editions and of other Oxford dictionaries.

3.1. Review of the phonetic transcription schemata in the *COD*s

As mentioned in the Introduction, the *COD*s have undergone few major revisions. The following table summarizes those changes that have occurred in terms of the representation of pronunciation. The three *NODE*/*ODE*s are included, since they have strongly influenced the later *COD*s.

Table 3.1 Phonetic transcription in the *COD*s and *NODE*/*ODE*s

Year	Dictionaries	Phonetic transcription
1911	*COD*1	Respelling and diacritics
1929	*COD*2	
1934	*COD*3	
1951	*COD*4	
1964	*COD*5	
1976	*COD*6	
1982	*COD*7	
1990	*COD*8	IPA (Full headwords)
1995	*COD*9	IPA (Full headwords; some symbols adapted)
1998	*NODE*	IPA (Portions of the headwords)
1999/2002	*COED*10	
2003	*ODE*2	
2004	*COED*11	
2010	*ODE*3	
2011	*COED*12	

As regards pronunciation, the most significant change was observed in the eighth edition, when the International Phonetic Alphabet (IPA) was first implemented. Previously, in the first through seventh editions, the *COD*s had used both respelling and diacritics; that is, pronunciations were shown by directly adding diacritics to each headword (e.g., **cōld**), or by rewriting them in parentheses with special symbols when the spelling was irregular (e.g., **do** (dōō)). This system emphasizes the correspondence between orthography and sounds. The preface to *COD*1 says that "[t]he pronunciation of many words is omitted on the assumption that the reader is already familiar with the normal values of some letters and combinations" (vii). When the pronunciation cannot be predicted from the spelling, however, even basic everyday words are respelled.

This "respelling and diacritics" system saw revisions and improvements over time. Minor changes in *COD*6, for example, include areas such as the position of stress marks, the transcription of syllabic consonants, and the merger of the NORTH and FORCE vowels[1)] (Nakao et al. 1977: 147–148).

*COD*8 explains the change to the IPA in its preface as follows:

> Of great importance is the use of the International Phonetic Alphabet, . . . newly adopted in this edition . . . in the interests of greater precision and consistency and to enable the guidance on pronunciation to be relevant internationally. At the same time the freeing of every headword from special marks and signs further enhances the straightforwardness of presentation which underlies all the changes introduced in this edition (vii).

The above excerpt clarifies the purposes of the shift to the IPA. The first was to improve precision and consistency. Nakao et al. (1977: 149) state that the pronunciations given in the *COD*s had until that point been prescriptive and conservative and that the basic reliance of the transcription on orthography had influenced pronunciation representation choices. The adoption of the IPA enabled more accurate transcription of the phonetic value of each sound, and ensured a one-to-one correspondence between symbols and sounds. Second, as Akasu et al. (2000: 62) point out, "it was very rare for dictionaries targeted at

native speakers to employ the IPA." *COD*8 made the decision to switch to the IPA in order to be more useful in a larger international context, in which the IPA was more prevalent. Finally, the IPA allows simpler headwords to be used, in contrast to the use of diacritics on headwords, which was sometimes confusing and distracting for users.

The *COD*s have continued using IPA since the eighth edition, but two further changes have followed, the first in vowel symbols and the second in the scope of transcription. *COD*9 adopted different vowel symbols under the influence of Clive Upton, who joined the editorial staff at that time and who is also one of the editors of the *Oxford Dictionary of Pronunciation for Current English*. The new symbols will be explained in more detail in the following section.

With regard to the second change, both *COD*8 and *COD*9 give phonetic transcriptions to all headwords. In contrast, the tenth edition provides pronunciation for only some headwords, an approach which *COED*12 inherits and justifies in its introduction as follows: "Pronunciations are not given for ordinary, everyday words such as **bake**, **baby**, **beach**, **bewilder**, **boastful**, or **budge**, since it is assumed that native speakers of English do not, as a rule, have problems with the pronunciation of such words" (xxiii). This may be an example of the influence of *NODE*; in any case, it was maintained from *COED*10 onwards.

3.2. The phonetic transcription schema of *COED*12

This section focuses on the phonetic transcription schema used in *COED*12; C. Sangster was in charge of pronunciations for this edition. (She is also on the editorial staff of *ODE*3.)

3.2.1. Model pronunciation

In the introduction to *COED*12, it is written that the pronunciations represent "the standard accent of English as spoken in the south of England (sometimes called Received Pronunciation or RP)" (xxiv). The dictionary thus transcribes exclusively British pronunciations; however, it occasionally refers to other accents in its usage notes, as in

the following example (214):

> USAGE There are two possible pronunciations of the word **Caribbean**. The second, found in the US and the Caribbean itself, puts the stress on the **-rib-**, while the first, more familiar to most British people, puts the stress on the **-be-**.

Thus, the usage notes, which are also employed in *COED*10, *COED*11, and the *NODE*/*ODE*s, are sometimes used for tips on pronunciation. As pointed out in a prior analysis of *NODE*, the use of IPA symbols is avoided in the explanations (Akasu et al. 2000: 63).

3.2.2. Phonetic symbols

The phonetic transcription of a word, whenever it is provided, is given between slashes immediately after the headword. With regard to consonants, exactly the same set of symbols is used for *COD*9, *COED*10/11/12, and *ODE*3. The same set is even used in EFL dictionaries such as *OALD*8.

However, a number of differences are observed in the vowel symbols. The following table compares the vowel symbols used in the seven dictionaries.

Table 3.2 Vowel symbols

	Set 1	Set 2		Set 1	Set 2
Standard lexical sets	*COD*8 *OALD*8	*COD*9, *ODE*3 *COED*10/11/12	Standard lexical sets	*COD*8 *OALD*8	*COD*9, *ODE*3 *COED*10/11/12
TRAP	/æ/	/a/	FACE	/eɪ/	/eɪ/
DRESS	/e/	/ɛ/	PRICE	/aɪ/	/ʌɪ/
LOT	/ɒ/	/ɒ/	CHOICE	/ɔɪ/	/ɔɪ/
STRUT	/ʌ/	/ʌ/	MOUTH	/aʊ/	/aʊ/
FOOT	/ʊ/	/ʊ/	GOAT	/əʊ/	/əʊ/
KIT	/ɪ/	/ɪ/	NEAR	/ɪə/	/ɪə/
START	/ɑː/	/ɑː/	SQUARE	/eə/	/ɛː/
NURSE	/ɜː/	/əː/	CURE	/ʊə/	/ʊə/
FLEECE	/iː/	/iː/	comma	/ə/	/ə/
THOUGHT	/ɔː/	/ɔː/	happy	/i/	/i/
GOOSE	/uː/	/uː/			

As seen in the table, the symbols in *COD*8 and *OALD*8 are identical, as are those in *COD*9, *COED*10/11/12, and *ODE*3. Five differences between the two sets are found, specifically the changes to /a, ɛ, ʌɪ, ɛː, əː/, as described in more detail below. All of these are innovations introduced by Clive Upton, and used in Oxford dictionaries from 1993 onwards (Weiner and Upton 2000: 44), including *COD*9. The main purpose was to reflect "recent shifts in British English pronunciation" (Weiner and Upton 2000: 44).

First, the TRAP vowel is transcribed by /a/ instead of the conventional /æ/. In fact, Cruttenden (2008: 112) notes that in RP this vowel, which used to be closer to Cardinal Vowel No. 3 [ɛ], has recently become more open and is now closer to Cardinal Vowel No. 4 [a]. Similarly, [ɛ] is used for the DRESS vowel since, as Cruttenden (2008: 11) describes, it is closer to Cardinal Vowel No. 3 [ɛ] than to Cardinal Vowel No. 2 [e]. According to Weiner and Upton (2000: 45), the starting point of the PRICE vowel "has typically moved back and up, to a position occupied by the RP STRUT vowel." This is why *COED*12 uses the symbol /ʌɪ/ and not /aɪ/. The fourth change is the use of /ɛː/ for the SQUARE vowel, a change which represents the monophthongization of the diphthong /eə/. Weiner and Upton (2000: 45) claim that the "simple long monophthong [ɛː] reproduces the mainstream sound accurately." In *COED*12, this vowel is always transcribed /ɛː/ regardless of its position within words (cf. **heir** /ɛː/). The last change is the use of the symbol /əː/ instead of /ɜː/ for the NURSE vowel; this is the only one that does not reflect a change in pronunciation.

However, not all phoneticians approve of Upton's reforms. For example, Wells (2001) says it is advisable to keep /æ/ for the TRAP vowel, since the same change in quality has not happened in American and Australian English. He adds that the phonetic value of the symbol can always be redefined as the quality changes, and that is what is usually done for other symbols. He also disagrees with the idea of using separate symbols for the DRESS vowel and the first element of the FACE vowel, contending that they may confuse EFL learners. Third, Wells (2001) argues that the choice of /ʌ/ as the starting point

of the PRICE vowel does not correctly reflect RP; he claims that the starting point is similar to the START vowel, rather than the STRUT vowel. Fourth, although admitting the fact that monophthongization of the SQUARE vowel has now become the mainstream pronunciation, he argues that many English speakers nevertheless still use a diphthongal quality. Akasu et al. (2000: 64) also state that this vowel is less likely to be monophthongized in word-final positions, and thus that the use of /ɛː/ word-finally is not appropriate. Last, Wells (2001) opposes the idea of using /əː/ for the NURSE vowel because it results in the use of the same symbol for both the weak and strong vowels, which are not only different in their distribution but also in the range of phonetic realizations they allow.

Upton's innovations are intended to correctly reflect the phonetic values of the current RP vowels. However, it should also be noted that many pronunciation changes are currently in progress. In addition, changing the symbols involves the risk that many people who are already familiar with the conventional set of English vowel symbols may find the new ones difficult to understand.

3.2.3. Other features

The four features that show variation among the later *COD*s will be explained in this section.

(i) Syllabic consonants: The same symbol has been used for syllabic consonants since the eighth edition. Although the symbol stays the same, the explanation has been slightly modified. In *COD*8, the explanation is rather vague saying "(ə) signifies the indeterminate sound" (xxvi). The explanation becomes phonetically more accurate from *COED*10, and in *COED*12, it is written as follows: "(ə) before **l**, **m**, or **n** indicates that the syllable may be realized with a syllabic **l**, **m**, or **n**, rather than with a vowel and a consonant . . ." (xxiv).

(ii) Linking and intrusive [r]: Linking and intrusive [r] are features that have been consistently transcribed in the *COD*s. *COD*8 explains linking [r] as follows: "(r) at the end of a word indicates an r that is sounded when a word beginning with a vowel follows, as in *clutter up*

and *an acre of land*" (xxvi). In contrast, in *COED*10, the description of linking [r] disappears, but the following description of intrusive [r] is given: "(r) indicates an **r** that is sometimes sounded when a vowel follows, as in dra**w**er, cha-ch**a**ing" (xv). *COED*11 follows *COED*10, but in *COED*12, no explanation of linking or intrusive [r] is found.

(iii) Stress: The transcription of primary and secondary stress has not changed, but the explanation varies among editions. The most detailed description is given in *COD*8: "The main or primary stress of a word is shown by preceding the relevant syllable; any secondary stress in words of three or more syllables is shown by preceding the relevant syllable" (xxvi). *COED*10, in contrast, does not even introduce stress symbols in its introduction. In *COED*11 and *COED*12, there is a brief introduction of the symbols themselves, but only *COED*12 gives concrete examples. Note that stress marks are not provided for monosyllabic words or for most compounds.

(iv) Foreign pronunciations: Another characteristic not only of the *COD*s but also of the *NODE*/*ODEs* has been the use of a number of special symbols for words of foreign origin. Akasu et al. (2000: 66) explain that "*NODE* uses more symbols than any other Oxford English dictionaries to transcribe foreign words in their original pronunciations." Of the ninth to twelfth *COD*s, *COD*9 seems to be the most detailed, using a total of 21 symbols for non-English sounds (two additional consonants and nineteen additional vowels). However, in *COED*12, only the two nasalized vowels /ã, ɑ̃/ are listed along with the following explanation: "Foreign words and phrases, whether naturalized or not, are always given an anglicized pronunciation. The anglicized pronunciation represents the normal pronunciation used by native speakers of standard English when using the word in an English context" (xxiv).

3.2.4. CD-ROM

*COED*12 is accompanied by a CD-ROM, the manual to which says, "To hear a word pronounced, click the adjacent audio symbol. Audio pronunciation is provided for most headwords" (8). When the user

presses the audio symbol, the word is pronounced with an RP accent in either a male or female voice. Pronunciations are given for most headwords, including ordinary, everyday words, for which the dictionary itself does not provide phonetic transcriptions. Also, users can hear the pronunciation of all the function words and most of the compounds included in the dictionary.

However, the recording itself seems to show inconsistency. For example, all the variants of some headwords are pronounced, but not others. In addition, function words are sometimes pronounced as weak forms and sometimes as strong forms. Beside the audio symbols, phonetic transcriptions are also given for most headwords.

3.2.5. The scope and choice of pronunciation

This section discusses how the phonetic transcription schema of *COED*12 differs from those of the previous editions, *ODE*3, and pronunciation dictionaries. In *COED*12, "[p]ronunciations are given only where they are likely to cause problems for native speakers of English, in particular for foreign words, scientific and other technical terms, rare words, words with unusual stress patterns, and words in which the standard pronunciation is disputed" (xxiii–xxiv). It is difficult to investigate how many foreign, scientific, technical, and rare words are transcribed; thus, this section focuses on the last two categories.

With regard to "words with unusual stress patterns," I use the words listed by Cruttenden (2008: 245–246) as having unstable stress because of rhythmic and analogical changes. Of a total of 29 words being investigated, 26 are given pronunciations in *COED*12. Of those 26 words, the first variant of 19 matches the preferred pattern in RP, as identified by Cruttenden (2008) based on Wells's 1998 survey.[2] These words are **deficit**, **integral**, **mischievous**, **inculcate**, **acumen**, **sonorous**, **precedence**, **inventory**, **hospitable**, **despicable**, **aristocrat**, **centrifugal**, **metallurgy**, **Caribbean**, **inexplicable**, **comparable**, **contribute**, **distribute**, and **dispute**. This indicates that many of the words which are known among native speakers to have unstable word stress are presented with the preferred stress pat-

tern in *COED*12. No difference was found regarding this category among *COED*12, *COED*10, *COED*11, and *ODE*3.

The second category taken up here is "words in which the standard pronunciation is disputed." I use the pronunciation surveys by Wells in 1998 (96 words) and 2007 (29 words) conducted in preparation for the second and third editions of the *Longman Pronunciation Dictionary* (henceforth *LPD*2 and *LPD*3) respectively, to identify these. After removal of ten words that overlap between the two polls and eight that do not appear in one or more of the three dictionaries, a total of 107 words are left to become the target of investigation.

First, the scope of transcription was examined. For all 107 words, I first checked whether each dictionary provided a pronunciation or not, and if it did, I also noted the number of variants. The results are summarized in the table below.

Table 3.3 Phonetic transcription of words in Wells's 1998 and 2007 pronunciation surveys

	*COED*10	*COED*11	*ODE*3	*COED*12
	Words (%)	Words (%)	Words (%)	Words (%)
Pronunciation not given	50 (47%)	45 (42%)	48 (45%)	44 (41%)
Pronunciation given	57 (53%)	62 (58%)	59 (55%)	63 (59%)
[1 variant	10	12	12	14]
[2 or more variants	47	50	47	49]

For these 107 words, the table shows that the number without pronunciations is the smallest in *COED*12, at 41%. In addition, Akasu et al. (2000: 67) analyzed *NODE* using the 96 words of Wells's 1998 survey and found that 49% of them were not given any pronunciation. Thus, although the difference is small, it can be said that *COED*12 gives pronunciations for more words that have disputed pronunciations. However, some pronunciation changes being undergone in RP are not presented. Examples include **perpe*tual*** (preferred pronunciation: /tjuəl/ 57%, /tʃuəl/ 37%, /tʃəl/ 5%), **del*i*rious** (preferred pronunciation: /ɪə/ 54%, /ɪ/ 46%), and **h*a*lt** (preferred pronunciation: /ɒ/ 52%,

/ɔː/ 48%) (Wells 1999). All three of these words qualify as having disputable pronunciations, since more than 40% of respondents choose the pronunciation other than the most preferred variant; however, no pronunciation is given for them in *COED*12.

The table also shows that both *COED*12 and *COED*11 introduce more variants than the other two dictionaries, although the difference is subtle. To take several examples, **project** and **via** are given one and two variants respectively in *COED*11/12, while no pronunciation is given in *COED*10 or *ODE*3. Other examples include **mischievous** (no pronunciation in *COED*10 but one variant in *ODE*3 and *COED*11/12) and **diphthong** (one variant in *COED*10 but two in *ODE*3 and *COED*11/12). However, the reverse pattern is also observed. For instance, **gibberish** is given only one variant in *COED*12 but two in *COED*10/11 and *ODE*3, and **homogeneous** is given only one variant in *COED*12 and *ODE*3 but three in *COED*10/11.

After the investigation of the scope of transcription and the number of variants, the first variant of each word was examined to see whether it agreed with the pronunciation preferred by the plurality in Wells's surveys. Among 107 target words, 40 words have the preferred pronunciation as the first variant; this amounts to 63% of the words for which pronunciations are provided. However, the preferred pronunciation is not presented as the first variant for some words. Such examples include **irrefutable** and **longitude**.

	*COED*12	Wells's 1998 survey
irrefutable	/ɪˈrɛfjʊtəb(ə)l, ˌɪrɪˈfjuː-/	stress on third 93%, second 7%
longitude	/ˈlɒn(d)ʒɪtjuːd, ˈlɒŋgɪ-/	/ŋg/ 85%, /ndʒ/ 15% (velar softening on decline)

When comparing the transcription schemata of *COED*10/11/12 and *ODE*3, we can see that in most cases, the first variants are the same. However, in a rare few cases, a difference is seen. One example is **forehead**; *COED*10 gives /ˈfɒrɪd/ as the first variant, whereas *ODE*3, *COED*11, and *COED*12 give /ˈfɔːhɛd/. The latter transcription is in accordance with the preferred pronunciation of Wells's survey: /ˈfɔːhɛd/ 65%, /ˈfɒrɪd/ 35% (Wells 1999).

Last, the pronunciations in *COED*12 were compared with those in two pronunciation dictionaries. Akasu et al. (2000: 70) point out that one of the weaknesses of Oxford was the lack of a good pronunciation dictionary; in 2001, however, the *Oxford Dictionary of Pronunciation for Current English* (henceforth *ODP*), edited by Clive Upton, William A. Kretzschmar, Jr., and Rafal Konopka, was published. It will be interesting to see whether the pronunciation given in *COED*12 reflects that of *ODP*. Of the 63 words from Wells's surveys which are provided with pronunciations in *COED*12, the first variants of 50 agree with those in *ODP*. This shows that the pronunciations in *COED*12 do not perfectly correspond with those in *ODP*. Of the remaining thirteen words that do not agree with *ODP*, six agree with *LPD*3 and seven do not.

As already explained, the representation of pronunciation in earlier *COD*s is said to have been conservative. However, in the latest edition, words such as **gradual** /ˈgradʒʊəl/ and **sure** /ʃɔː, ʃʊə/ are transcribed with the first variant being the one that is on the rise and preferred among young speakers (*LPD*3 2008: 350, 794). The editor of *COED*12 sometimes makes innovative decisions of this sort, although the basis for them is unclear.

3.3. Summary

To sum up, the explanation of pronunciation in *COED*12 is simplified compared to those in previous *COD*s. For example, it does not give any explanation of linking or intrusive [r], and uses a reduced number of symbols for foreign pronunciations. In contrast, the scope of pronunciation provided in *COED*12 seems to be slightly wider than in the previous editions or in *ODE*3. However, the scope and choice of pronunciation in *COED*12 seems to be inconsistent, relying on the intuition of native speakers. In their analysis of *NODE*, Akasu et al. (2000: 71) say, "The overall impression we get is that *NODE* is not as keen on describing pronunciation as it is with other aspects of the language." *COED*12 gives the same impression.

(Section 3 by Sugimoto)

4. Senses, examples and labels

4.1. Core senses and subsenses

NODE and *COD*10 are found to mark a departure from the traditional *COD*s in that the new versions are compiled based on the British National Corpus (cf. *COD*9) and the database of the Oxford Reading Programme (cf. Hanks 2010: 586). Especially noteworthy is the fact that *NODE* endeavors to show senses in terms of core senses and subsenses (cf. Allen 1986: 10). This approach is quite different from conventional Oxford range dictionaries. *COD*1 (1911) does not in principle give sense numbers for the purpose of showing subtle shades of meaning. As the new editions came out, the method of distinguishing numbered senses came to be established, allowing users great ease to look up in the dictionary. But this has caused them to take it for granted that every entry has at least one sense and in a host of cases has several discrete senses. The order of senses is different from dictionary to dictionary: One is historically or chronologically ordered such as *The Oxford English Dictionary*, and another is a frequency-based present-day MLD[1].

*COD*10 through *COED*12 take the same method of sense distinction as in *NODE* and *ODE*2/3; first comes a core sense, a typical and central meaning of the word, which is felt by native speakers to be the most literal and central. Placed immediately after the core sense are its related subsenses, introduced by a black square, which are the metaphorical or extended senses of the core sense. Take, for example, the up-to-date core sense in **tweet** and **google** shown below; both are first introduced in *COED*12[2] without the entries of **Twitter** and **Google** (cf. *CCED*8). On subsense, **DNA** or **follower** is a case in point, the metaphorical sense of which is given for the first time in *COED*12[3]. The quotes below show the relevant core senses or subsenses placed after the original sense with the examples shown.

tweet **n. 2** a posting made on the social networking service Twitter.
v. 2 make a posting on Twitter.

google **v.** informal search for information about (someone or

something) on the Internet, typically using the Google search engine.

DNA (the core sense omitted) ■ the fundamental and distinctive characteristics or qualities of someone or something, especially when regarded as unchangeable: *diversity is part of the company's DNA | men just don't get shopping — it's not in our DNA.*

follower **2** a supporter, fan or disciple: *a keen follower of football.* ■ someone who is tracking a particular person, group, etc. on a social networking site.

Lexicographers seem to favor this method of sense distinction. Landau (2001: 182) says that it drastically cuts down on the quantity of numbered senses, simplifying the presentation, not on the number of senses. Atkins and Rundell (2008: 280) consider this prototype approach superior in two respects: One is that it reflects the way people create meanings when they communicate and it accommodates creativity and fuzziness, and the other is that it makes the lexicographers' task more manageable because it allows them to focus on the prototype and its common exploitations (cf. Van der Meer 2000).

There can be in fact found some difference between *COED*12 and *ODE*3. Take, for example, **paper** as a noun. Below are shown the descriptions in *ODE*3, *COED*12, *COD*8 and *CIDE*, the last of which is an MLD with its sense presentation similar to the former two GPDs. Little information on grammar, labels and examples is cited for saving space. *COD*8 is quoted here for comparison, the description of which is followed in *COD*9.

*ODE*3 **1** material manufactured in thin sheets from the pulp of wood or other flesh fibrous substances, used for writing, drawing or printing on, or as wrapping material. ■ a wallpaper **2** a sheet of paper with something written or printed on it ■ a newspaper ■ personal documents. ■ documents attesting identity; credentials. ■ a government report or policy document. ■ denoting something that is officially documented but has no real existence. **3** a set of examination questions to be answered at one ses-

sion. ■ the written answers to examination questions. **4** an essay or dissertation, especially one read at an academic lecture or seminar or published in an academic journal. **5** free passes of admission to a theatre or other entertainment.

*COED*12 **1** material manufactured in thin sheets from the pulp of wood or other flesh fibrous substances, used for writing or printing on or as wrapping material. ■ sheets of paper covered with writing or printing; documents. ■ officially documented but having no real existence or use. **2** a newspaper. **3** a government report or policy document. **4** an essay or dissertation read at a seminar or published in a journal. **5** a set of examination questions to be answered at one session. ■ the written answers to such questions. **6** free passes of admission to a theatre or other entertainment.

*COD*8 **1** a material manufactured in thin sheets from the pulp of wood or other fibrous substances, used for writing or drawing or printing on, or as wrapping material etc. **2 a** made of using paper. **b** flimsy like paper. **3** =NEWSPAPER. **4 a** document printed on paper. **b** documents attesting identity or credentials. **c** documents belonging to a person or relating to a matter. **5 a** negotiable documents, e.g. bills of exchange. **b** recorded on paper though not existing. **6 a** a set of questions to be answered at one session in an examination. **b** the written answers to these. **7** =WALLPAPER. **8** an essay or dissertation, esp. one read to a learned society or published in a learned journal. **9** a piece of paper, esp. as a wrapper etc. **10** free tickets or the people admitted by them.

CIDE a thin flat material made from crushed wood and/or cloth used esp. for writing, printing or drawing on. ● A paper is also a newspaper. ● A paper is also a set of printed questions that is used as (part of) an exam. ● A paper is also a piece of writing on a particular subject written by an expert in that subject and usually published in a book or JOURNAL (=serious magazine) or read aloud to other people. ● Paper is also Am for ESSAY. ● Paper is also short for WALLPAPER (=paper

used for covering the inside walls of a room).
papers ● Papers are official documents, esp. ones that show who you are.

Below is shown the rough correspondence of the senses of **paper** in *ODE*3, *COED*12 and *COD*8. The blank shows there is no counterpart. **2–2**, for example, in the table shows it is shown as the second subsense placed after the second core sense.

Table 4.1 The sense correspondence in the three dictionaries

*ODE*3	*COED*12	*COD*8
1	**1**	**1**
1–1		**7**
2	**1–1**	**4a**
2–1	**2**	**3**
2–2		**4c**
2–3		**4b**
2–4	**3**	
2–5	**1–2**	**5b**
3	**5**	**6a**
3–1	**5–1**	**6b**
4	**4**	**8**
5	**6**	**10**

The table makes it clear that there is not always found the exact correspondence between *OED*3 and *COED*12, the latter of which omits some of the senses in the former. *ODE*3 makes a distinction between the first core sense and the second; the first is related to the material while the second to paper bearing writing, printing and so forth with their subsenses shown. *COED*12, however, does not follow the distinction: *ODE*3's second is considered a subsense of *COED*12's first. The second and third core senses in *COED*12 are not regarded as the subsenses of its first core sense. It is not clear why *COED*12 tries to make a different distinction, even though part of the senses are omitted as unnecessary. Is *COED*12's organization "logical" in comparison with *ODE*3's? *ODE*3 seems to be convincing or logical in that its

organization, which divides material sense and senses of types of paper, helps the user "to navigate the entries [entry] more easily and to find the relevant sense more readily . . . to build up an understanding in general of the ways in which different meanings of a word relate to each other" (xviii).

The quotes make us realize that *COED*12 based on *ODE*3 and *CIDE* draw a similar sense distinction here, although there is found a small difference. *COED*12, compared with *COD*8, draws a different distinction partly because the former is based on the analysis of the corpora and partly because it adopts a different method of sense distinction. But a large part of the definition in *COD*8 is used in the corpus-based *COED*12[4)], which means that there is not a marked difference of the wording of definition of this entry between *COD*8 and *COED*12. (Compare the alterations in **check**[1] (v.), **fire** (v.) and **shake** (v.), for example, between *COD*8 and *COD*12.)

A brief survey is conducted to grasp how much information on senses in *ODE*3 is provided in *COED*12. Three parts are surveyed for random sampling: **Athinai—attack**, **mediator—megalithic**, **screen pass—scruff**[2] in *ODE*3 and their counterparts in *COED*12. The entries found in both are compared.

Table 4.2 The number of core senses and subsenses in *COED*12 in comparison with *ODE*3

	type	A	M	S	Total
unchanged[a)]	core	58	57	86	201
	subsense	6	18	16	40
omitted	core	6	3	8	17
	subsense	15	12	19	46
modified[b)]	core	37	32	22	91
	subsense	1	5	10	16
others[c)]		6		1	7

a) This category includes the definitions or explanations such as "another term for X" and "a variant spelling for Y." Also included here are the cases where the subjects or objects in parentheses in *ODE*3 are omitted in *COED*12.

b) This category includes both cases where the definitions are short-

ened or modified.

c) The category includes the following cases: A run-on derivative is upgraded to the main entry, the main entry is changed to a derivative with no definition given and a new sense is added.

The table, however small and rough the survey may be, reveals that a large amount of the sense description in *ODE*3 is given in *COED*12: 63 senses, especially subsenses rather than core senses, are omitted while 241 remain unchanged and 107 modified. Modified senses are often shortened for saving space: often omitted are words or expressions in parentheses as well as a technical or encyclopedic explanation (**atomic mass**, **medusa**), an additional explanation beginning with *especially* (**medieval**, **scribe** (n)(1)), with *typically* (**atrocity**, **scrub**[1] (v)(1)) or with *e.g.* (**atropine**, **scroll** (n)(2)). It is generally considered that "Monolingual dictionaries are mostly used for meaning . . ." (Bejoint 2010: 243), and a possible explanation is that the editors endeavored to provide as many senses in the available space.

No clear picture of what constitutes the omitted senses in *COED*12 could be painted because no consistent principle is formulated: some are technical (**medium** in cricket), regional (**scrubber** in Austral./NZ), stylistic (**screw** (n) as vulgar slang), suffix (**-ation**), and senses easy to understand (**meet**). Some subsenses in *COED*12 are upgraded to core senses partly because it may be considered easier to look up rather than keeping the "logical" relationship: **atomize** (2), for example. There are a few cases where a core sense is reasonably downgraded to a subsense: **scrub**[2] (4), for example. It could be argued that the concise version generally endeavors to simplify definitions.

To sum up, *COED*12 attempts to offer as much and concise definition as it could by means of omitting part of, shortening or modifying the definition on *ODE*3. As a result, *COED*12 is often (far) less informative.

4.2. Illustrated examples

The number of pages in *COD*10 through *COED*12 has only slightly increased. The *COED*12 preface says that the number of new entries

and senses have increased, which will naturally lead to omission of other types of description in a print dictionary. As is the case in the reduction in the number of senses, a substantial reduction in the number of examples, especially in sentence or phrase forms, is far more space-saving. A brief survey reveals that it is convenient for the editors to omit examples, which is in stark contrast with *COD*1 that states, "Another peculiarity is the use, copious for so small a dictionary, of illustrative sentences as a necessary supplement to definition . . ." (iii), which is unique in contemporary GPDs around the turn of the twentieth century (Dohi 2001). *COD*s have shown a trend toward fewer examples. *COD*10 began to drastically omit sentence and phrase form examples for new entries and senses.

The survey of the three parts mentioned above shows that *COED*12 gives very few examples in *ODE*3. Hank says concerning examples in GPDs, ". . . the dictionary maker should . . . choose examples that represent central and typical, normal usage, even though such usage may seem boring. The objective in selecting examples should be to illustrate normal usage" (2010: 591). Given that there is a strong possibility that native speakers will not search for such normal-usage examples to support the core senses and/or subsenses, it could be argued that little importance is placed on meaning-elucidating examples in *COED*12 for space-saving.

Table 4.3 The number of examples in *COD*12 in comparison with *ODE*3

	A	M	S	Total
unchanged	6	3	1	10
omitted	67	64	34[a)]	165
added	0	0	0	0
modified	1	1	0	2

a) Excluded here are the five cases where the original senses in *ODE*3 are omitted in *COED*12.

When the examples are given, no sentence or phrase form example is to be found as far as the small survey is concerned. Shown are exam-

ple words such as *pejorative* in the entry **-ative**. *COED*12 as well as *COD*10/*COED*11 provides their users with little evidence as examples[5] despite its statement in the preface that "we have made use of larger amounts of evidence than ever before" (viii).

It would be safe to conjecture that *COED*12 in its policy omits as many examples as possible, especially space-consuming sentence and phrase ones, with the result that for users, native or non-native, who need more instructive description, *COED*12 is far less informative than its larger cousin.

4.3. Labels

The number of labels has not changed in *COED*12, which shows 14 style labels (formal, informal, dated, archaic, historical, literary[6], technical, rare, humorous, euphemistic, dialect, offensive, derogatory, vulgar slang), geographical labels and subject labels. A small change is found in *COED*12 as far as the same survey is concerned, excluding the labels in set phases and phrasal verbs. In the letter A, there is found one omitted label (**atop**). In the letter M, there are one omitted (**mefloquine**) and one added (**megafauna**), while in the letter S, one is added (**scrip**[1]). There are a few cases in S where the label is integrated into or taken from the definition, such as **screen saver** and **screw** (4). It could be safely said that a minor change is made in the labels in *COED*12.

(Section 4 by Dohi)

5. Grammar and usage notes

5.1. Grammar

*COED*12 is an updated concise version of *ODE*3. This is why grammatical descriptions in *ODE*3 are reduced to a minimum. Eight out of 12 are omitted, 4 remain and 1 is only found in *COD*/*COED* as far as the explicit grammar labels are concerned: [treated as sing. or pl.], [treated as sing.], [as modifier], and [postpose.] remain and [with neg.] is new in *COD*10 through *COED*12. The first is related to the usage note in the entry **collective noun** in *COD*/*COED* while the second is to the

note in the entry **-ics** in *ODE*s. The last label was introduced in an MLD, *COBUILD*1 (1987). These make us realize that *COED*s partially include grammar information similar to the one in MLDs.

For reasons of space, some entries are randomly examined for the first two and the last grammar labels. A brief survey makes it likely to come to the conclusion that no consistency could be found: The first label is found, for example, in **aristocracy**, **committee**, **enemy**, **navy**, and **team**, but not in **audience**, **company**, **flock**[1] and **gang**. A more consistent description is found in the second label: **acoustic** (n) (2), **economics**, and **physics** show the label while **classic** (n) (2) does not. The label [with neg.] is not always indicated: It is, for example, shown in **shadow** as a noun (4), the modified one [usu. with neg.] is shown in **atom** (2), while no mention is made of in **materialize** (1) or **iota** (2) (cf. *OALD*8). A negative particle **not** is explicitly shown in **not do things by halves** but not in **make head or tail of** (cf. *OALD*8).

To conclude, it remains to be seen how the given information is valued by native speakers, partly because it is not consistently provided and partly because it is not clear whether they make better use of it.

5.2. Usage notes

*OPD*1 (1979) is considered to be the first that includes usage notes among the Oxford range dictionaries (cf. *A Supplement to the Oxford English Dictionary*, Vol. 1 (1972)). *COD*7 (1982) introduced two labels: **D** for disputed usage and **R** for racially offensive terms. The D label is changed into the designation *disp.* in *COD*8 (1990), which introduced the usage notes by the symbol ¶. More than 70 *disp.* labels are found in the eighth edition (Dohi 1995). The same system is maintained in *COD*9 (1995), which is proud of the use of the British National Corpus. Hanks (2010) says, "People look to a dictionary for guidance, not only on spelling and inflection, but also on correct usage and word choice" (588).

Whitcut (1985) says, "The native speaker's interest in usage is mainly over its disputed areas" (77). She goes on to say, "Native

speakers who worry about at all about English subscribe to a certain set of deeply-entrenched shibboleths on the subject, implanted in them and their forbearers by generations of teachers. It is a matter of etiquette, rather like table manners. . . . The responsible attitude is to point out objectively the existence of the shibboleth, discuss where appropriate its rationale, and give advice" (77). Therefore, lexicographers should always bear in mind Algeo's dictum "Descriptions establish norms, and norms are at least implicit prescription" (1977: 54).

Since *COD*10 (1999) the database has expanded: *COED*12 mentions the two billion word Oxford English Corpus and the citation database of the Oxford Reading Programme, which made it possible to include "more boxed usage notes offering help with tricky and controversial questions of English" (viii).

*ODE*s have been making some revisions for the new edition. The number of usage notes has increased although each edition does not always include the same usage notes: *NODE* includes 461, *ODE*2 521, and *ODE*3 531. This enables us to surmise that the number of usage notes increased in *COED*, especially in *COED*11/12 in comparison with *COD*10. A brief survey reveals that, compared with *ODE*3, *COED*12 includes approximately 70% of the usage notes in *ODE*3: *CODE*12 has 368, 10 of which are nowhere found in *ODE*3. Below are given the new notes in *COED*12[1].

flair, **flare**, **innit**, **licence**, **people**, **purposeful**, **Serbo-Croat**, **there**, **whatever**, **where**

Innit and **whatever** are accompanied with WORD TRENDS in *ODE*3 (the latter is also treated in a usage note in *NODE* and *ODE*2). The usage note in **Serbo-Croat** is originally traced back to the explanation in the previous editions, and, therefore, the usage note includes nothing new. **Flair** and **flare** are given as they are confusing homophones. **Licence** is a rather pedagogical usage note as it is usually shown as a variant of **license** except in MLDs. **People** is new and related to the usage note of **person**. **Purposeful,** also found in *CED*11, refers to the difference of three adverbs **purposely**, **purposefully** and

6.2. Dating and sense

As an example of etymological information in *COED*12, let us cite the word **gospel**.

> — ORIGIN OE *gōdspel*, from *gōd* 'good' + *spel* 'news, a story', translating eccles. L. *bona annuntiatio* or *bonus nuntius*, used to gloss eccles. L. *evangelium*, from Gk *euangelion* 'good news'.

After the heading "ORIGIN" comes the period at which this word was first recorded in English, that is, OE (=Old English). *COED*12 offers rough dates, such as "OE, ME, C15, C16, C17, C18, C19, early 20th cent., 1920s, 1930s, 1940s, 1950s, 1960s, 1970s, 1980s, 1990s, C21."

Let us look at the etymological information for the word **sedentary** in *COED*12 and *ODE*3 for comparison.

> **sedentary** [*COED*12]
> — ORIGIN C16 (in the sense 'not migratory'): from Fr. *sédentaire* or L. *sedentarius*, from *sedere* 'sit'.
> **sedentary** [*ODE*3]
> — ORIGIN late 16th cent. (in the sense 'not migratory'): from French *sédentaire* or Latin *sedentarius*, from *sedere* 'sit'.

The description itself is the same in the two dictionaries, except that *COED*12 uses abbreviations to save space, and that *ODE*3 has a slightly more precise dating system, e.g., "late 16th cent." vs. "C16." What is noteworthy is that *COED*12 as well as *ODE*3 adds the original sense in round brackets "when the sense for the earliest recorded use is not given in the definitions of the entry or is different from the first defined sense" (cf. Akasu et al. 2000: 98.).

Let us cite another pair of examples from *COED*12 and *ODE*3.

> **ingenuous** [*COED*12]
> — ORIGIN C16 (orig. in sense 'noble, generous'): from L. *ingenuus* lit. 'native, inborn'.
> **ingenuous** [*ODE*3]
> — ORIGIN late 16th cent.: from Latin *ingenuus* literally 'native, inborn', from *in-* 'into' + an element related to *gignere* 'beget'. The original sense was 'noble, generous', giving rise to 'honourably straightforward, frank', hence 'innocently frank' (late 17th cent.)

*COED*12 refers to the original sense, while the larger *ODE*3 gives a further interesting account, explaining the sense development of the word.

6.3. Morphological development

Avoiding specialist explanation, *COED*12 offers a brief and simple description of morphological development, which might be a blessing for the general reader but a cause of complaint for the philological specialist. Native words of Germanic origin in particular receive only cursory treatment in *COED*12 as in:

> **feather** [*COED*12]
> — ORIGIN OE *fether*, of Gmc origin.

*ODE*3, on the other hand, often presents German and Dutch forms as cognates, and it also occasionally refers to the Indo-European root by citing attested Sanskrit as well as Latin and Greek cognates as in:

> **feather** [*ODE*3]
> — ORIGIN Old English *fether*, of Germanic origin; related to Dutch *veer* and German *Feder*, from an Indo-European root shared by Sanskrit *patra* 'wing', Latin *penna* 'feather', and Greek *pteron, pterux* 'wing'.

If one is not satisfied with the concise etymological information provided in *COED*12 for native words of Germanic origin, it would be a good idea to turn to *ODE*3 for possible further information generally offered in a user-friendly way.

A user-friendly feature of *COED*12 in referring to morphological development is that it specifies the senses of prefixes just as *ODE*3 does. *Com-*, for example, is indicated as "together with" in **companion**[1], and as "expressing intensive force" in **command**.

> **companion**[1] [*COED*12]
> — ORIGIN ME: from OFr. *compaignon*, lit. 'one who breaks bread with another', based on L. *com-* 'together with' + *panis* 'bread'.
> **command** [*COED*12]
> — ORIGIN ME: from OFr. *comander*, from late L. *commandare*,

from *com-* (expressing intensive force) + *mandare* 'commit, command'.

6.4. Sense development

Information about sense development is welcome in dictionaries for general readers because it arouses their interest and helps them to better understand the contemporary meanings of the words in question. Let us give a few examples from *COED*12.

> **deer** [*COED*12]
> — ORIGIN OE *dēor*, also orig. denoting any quadruped, used in the phr. *small deer* meaning 'small creatures collectively'; of Gmc origin.
> **toilet** [*COED*12]
> — ORIGIN C16 (orig. denoting a cloth cover for a dressing table, later a dressing room, and, in the US, one with washing facilities): from Fr. *toilette* 'cloth, wrapper', dimin. of *toile* (see **toile**).
> **meticulous** [*COED*12]
> — ORIGIN C16 (in the sense 'fearful or timid', later 'overcareful about detail'): from L. *meticulosus*, from *metus* 'fear'.

In regard to semantic change, the word **meticulous**, as defined by *COED*12 as "very careful and precise," is especially interesting. Deriving originally from Latin *metus* "fear," this word used to have negative connotations (i.e. "'fearful or timid', later 'overcareful about detail'"), but it subsequently developed a more positive sense, such as "very careful and precise." The development of this word is a case of specialization (i.e. "fearful" > "fearful of making a mistake; overcareful about detail") and then of amelioration (i.e. "overcareful about detail" > "very careful and precise").[1)]

*COED*11 and *COED*12 explain the etymology of some words in an extended way by introducing special boxes. *COED*11 has special boxes called "HISTORY," while *COED*12 has introduced "a selection of special 1911–2011 features, highlighting just some of the changes in language and style between the first and the twelfth editions" ("Preface" to *COED*12, viii). Below is the etymological information presented for the word **nice** in *COED*11 and *COED*12.

nice [*COED*11]

HISTORY

The word **nice** entered Middle English in the sense 'stupid', from Latin *nescius*, meaning 'ignorant'. It developed a range of senses, from 'wanton and dissolute' to 'strange or rare' and 'coy or reserved'. It was first used with a positive connotation in the sense 'fine or subtle' in the 16th century, and the current main meanings, senses 1 and 2, are recorded from the late 18th century.

nice [*COED*12]

— ORIGIN ME (orig. meaning 'stupid', also 'coy, reserved', hence 'fine, subtle'): from OFr., from L. *nescius* 'ignorant', from *nescire* 'not know'.

1911–2011

Nice is now so established as an all-purpose term of approval that it is surprising to find in the 1911 edition the first sense being given as 'fastidious, dainty'. The usual modern meaning, 'agreeable, attractive, delightful', is at the end of the entry and marked *colloquial*. **Nice** has a long history with many changes of meaning, and until the 16th century generally had negative connotations.

Both boxes give interesting details about the semantic change of the word **nice**. The "HISTORY" box in *COED*11 explains its sense development from Middle English, while the "1911–2011" box in *COED*12 focuses on its sense development in the past century (cf. *COED*12 CD-ROM).

6.5. Internal etymologies and folk etymologies

We will consider how "internal etymologies" and "folk etymologies," both of which are characteristic of *ODE*3, are presented in *COED*12.

"Internal etymologies," which "are given within entries to explain the origin of particular senses, phrases, or idioms" ("Introduction" to *ODE*3, xviii), are scattered throughout the pages of *COED*12 as well. Presented below are some examples of internal etymologies of a particular sense of the word **rub**, and the phrases **milk and honey**, **tilt at windmills**, and **cut and dried**.

rub [*COED*12]
▶**n. 3** (usu. **the rub**) the central or most important difficulty. [from Shakespeare's *Hamlet* (III. i. 65).]
milk and honey (s.v. **milk**) [*COED*12]
prosperity and abundance. [with biblical allusion to the prosperity of the Promised Land (Exod. 3: 8).]
tilt at windmills (s.v. **tilt**) [*COED*12]
attack imaginary enemies. [with allusion to the story of Don Quixote tilting at windmills, believing they were giants.]
cut and dried (s.v. **cut**) [*COED*12]
(of a situation) completely settled. [C18: orig. used to distinguish the herbs of herbalists' shops from growing herbs.]

"Folk etymologies," on the other hand, are defined by *COED*12 as "**1** a popular but mistaken account of the origin of a word or phrase. **2** the process by which the form of an unfamiliar or foreign word is adapted to a more familiar form through popular usage." (s.v. **folk etymology**). Let us cite some examples of these from *COED*12. Note the underlined parts (underlines added).

SOS [*COED*12]
— ORIGIN early 20th cent.: letters chosen as being easily transmitted and recognized in Morse code; by <u>folk etymology</u> an abbrev. of *save our souls*.
sherry [*COED*12]
— ORIGIN C16: alt. of archaic *sherris*, <u>interpreted as</u> pl., from Sp. (*vino de*) *Xeres* 'Xeres (wine)' (Xeres being the former name of the city of *Jerez de la Frontera*).
cherry [*COED*12]
— ORIGIN ME: from Old North. Fr. *cherise* (<u>taken as</u> pl.), from med. L. *ceresia*, based on Gk *kerasos* 'cherry tree, cherry'.
bridegroom [*COED*12]
— ORIGIN OE *brȳdguma*, from *brȳd* 'bride' + *guma* 'man'; the second syllable <u>influenced by</u> **groom**.

Folk etymologies offer interesting and insightful information to non-native as well as native users of the dictionary because they reflect the way the general public have interpreted the words in question.

6.6. Summary

To sum up, the etymological information provided in *COED*12 is generally a simplified version of that in *ODE*3, reflecting more or less the latter's features in terms of "dating and sense," "morphological development," "sense development," and "internal etymologies and folk etymologies." As "[a]ll things considered, *NODE* seems to be quite successful in presenting etymological information in a standard dictionary of current English" (Akasu et al. 2000: 108), *COED*12 seems to be as successful in presenting etymological information, given its size as a "concise" dictionary of current English for the general reader.

(Section 6 by Urata)

7. Conclusion

It is quite likely to be the case that a new dictionary prompts the media to pay more attention to new entries than others in the microstructure such as sense descriptions, examples, etymology and so forth. Take, for example, an article in *The Telegraph* on *COED*12 soon after it came out on the market: "Woot! Retweet and sexting enter the dictionary."[1)]

In terms of the comparison of entries between *COED*12 and *COED*11, it is noteworthy that as many as 69 derivatives are deleted in *COED*12, while only moderate changes are observed in main and other run-on entries. As for the relationship with main entries in *ODE*3, it is obvious that the number of main entries in *COED*12 hardly bear comparison with that of *ODE*3. It should also be noted that some *COED*12 main entries are missing in *ODE*3 and that not all the entries are presented in the same manner in the two dictionaries. Special attention must be paid to the CD version of *COED*12. Unlike its previous editions, the CD version contains more entries than the print version; most of the extra entries are present in *COED*11 but absent in the print version of *COED*12.

With regard to pronunciation, *COED*12 only gives phonetic transcription to portions of headwords using the IPA symbols. The scope and choice of pronunciation shows inconsistency, and the description

of phonetic features such as linking/intrusive [r] and foreign pronunciations is simplified. As a result, *COED*12 gives us the impression that it is not keen on the description of pronunciation.

It could be safely said that the amount of sense description in *COED*12 is fairly large compared with that of *ODE*3, despite the fact that the order of senses and the distinction of core senses and subsenses between the two are occasionally different. A brief survey shows that the way senses are omitted in *COED*12 is not always considered consistent. It is particularly remarkable that huge numbers of or most examples in *ODE*3 are omitted, while the number of labels remains the same. Grammar information in *COED*12, which is not necessarily properly applied, is limited in comparison with *ODE*3's. A fairly large number of usage notes in *COED*12 could be safely said to follow in their contents those in *ODE*3, with longer or technical explanations often shortened or modified.

*COED*12 presents etymological information clearly and with a minimum of technical terminology, trying to meet the needs of the general reader to better understand the background of English words. It characteristically pays attention to semantic aspects of etymology as well as explaining morphological development. In a word, *COED*12 inherits the features of etymological information from *ODE*3, presenting them often concisely. We appreciate the value of *COED*12's etymological information for quick reference in order to gain some knowledge of the background to the contemporary meanings and usage of English words.

It remains to be seen, however, how native users value *COED*12. As a dictionary for quick reference, it may be informative enough for occasional users to look for relevant information, but experienced users who seek more instruction may find the dictionary slightly disappointing, because, except for new entries and senses, it does not include sufficient information. For users who are not conversant with the language, the dictionary may fall short of providing the necessary description. Only those who make a quick reference, dictionary collectors, or some academic scholars may take an interest in it. For those

who search for more detailed information as well as non-native users, *ODE* rather than *COED* would be recommended. Oxford University Press may offer an updated subscription service for those who buy a print copy (cf. Lew), but it is questionable how many people will pay for an abridged *COED* in the future. It remains to be seen what role *COED* will play among the Oxford range dictionaries or whether it will continue to be issued in a print version now that Macmillan will not be publishing dictionaries in book form in 2013[2)].

NOTES

Section 1

1) See Dictionaries Consulted and their Abbreviations at the end of the article. Both Stevenson's preface to *COED*12 and Knowles' article "One hundred years of the Concise Oxford Dictionary" mislead the users into thinking that *COD*1 has 1,064 pages, but the centenary edition makes it explicit that the first edition has 1,041 pages. The 1,064 page version is the one with addenda dated in September 1914.

2) Yamamoto and Fujimoto (2005) mention that *COD*10 changed its contents between the first impression and the 2001 impression, and that the latter's content is slightly different from the 2002 impression's. They also note that the title of *The Concise Oxford Dictionary* was changed to *Concise Oxford English Dictionary* in 2002, which is abbreviated to *COED*10. It is not clear whether *COED*11 underwent similar small changes in its contents.

Section 2

1) Listed below is the detailed information on the editions of *COED*s referred to in this section:

*COED*10 print version:	*Concise Oxford English Dictionary*. Rev. 10th ed. 2002. Print.
*COED*10 CD version:	*Concise Oxford Dictionary Tenth Edition on CD-ROM*. Version 1.1. 2001. CD-ROM.
*COED*11 print version:	*Concise Oxford English Dictionary*. Rev. 11th ed. 2009. Print.
*COED*11 CD version:	*Concise Oxford English Dictionary 11th edition revised on CD-ROM*. Version 2.0. 2009. CD-ROM.
*COED*12 print version:	*Concise Oxford English Dictionary*. 12th ed. 2011. Print.
*COED*12 CD version:	*Concise Oxford English Dictionary 12th edition on CD-ROM*. Version 1.0. 2011. CD-ROM. (attached to the *COED*12 print version).

A note must be made here that the *COED*10 CD version is reviewed on Windows 2000, whereas the CD versions of *COED*11 and *COED*12 are reviewed on Mac OS 10.7.

2) Figures in parentheses indicate the number of main entries which contain the run-

on entries under the category described in the leftmost column.

3) In *COED*11, the entry is given in the form "**24–7** (also **24/7**)."

4) Another comparison is also made between *COED*10 and *COED*11 under the same condition, in which we do not count the cases of some minor orthographic differences and the cases in which main entries in one dictionary become run-on entries in the other and run-on entries in one dictionary become main entries in the other. The result shows that the number of newly introduced main entries in *COED*11 is 105, whereas the number of *COED*10 main entries deleted in *COED*11 is 88. We might claim that the numbers here are rather large compared with those we get from the *COED*11-to-*COED*12 transition. However, we refrain from making that comment here, for our sample material makes use of revised editions of these dictionaries as we have mentioned earlier.

5) Other than Oxford dictionaries, *Longman Advanced American Dictionary* (2nd ed. 2007. Print.) and *Macmillan English Dictionary for Advanced Learners* (2nd ed. 2007. Print.) observe *COED*12 approach, but *Collins COBUILD Advanced Dictionary of American English* (2007. Print.) and *Collins COBUILD Advanced Dictionary of English* (7th ed. 2012. Print.) do not. *Cambridge Advanced Leaner's Dictionary* (3rd ed. 2008. Print.), *Merriam-Webster's Advanced Learner's English Dictionary* (2008. Print.), and *Longman Dictionary of Contemporary English* (5th ed. 2009. Print.) do not use the symbol "&" and spell the entry as **B and B**, thus list it after **bandanna**.

6) In comparison between *COED*10 and *COED*11, **throw something down** is newly added to *COED*11, making the number of entries in this category 49 in Table 2.2. *COED*10 entry **see about** becomes **see about** (or **see out**) in *COED*11, but we consider them basically the same here.

7) *COED*11 excludes 5 entries from *COED*10 and adds 12 new entries, in which we do not take into consideration minor representational differences found in **bang goes something** (**bang goes —** in *COED*10) and **the call of nature** (**call of nature** in *COED*10).

8) It must be noted here that the entry **velarize** or **velarise** is listed under **velarization** as **velarize** (also **velarise**) in *ODE*2.

9) Here we exclude: (1) cases in which main entries in one dictionary are presented as run-on entries in the other dictionary, and run-on entries in one dictionary are presented as main entries in the other dictionary; and (2) cases in which differences are attributed to orthographic preferences.

10) In this comparison, we do not count the following: (1) some indexed entries like **micrometer**[1] and **micrometer**[2] in *ODE*3, the counterpart of which in *COED*12 is given as **micrometer**; (2) *ODE*3 main entries which are given as run-on derivatives in *COED*12 (156 instances); and (3) *ODE*3 main entries which are presented in boldface but embedded in the definition part and not in the form of run-on entries in *COED*12 like **hypochondriacal**, which is given as "(also **hypochondriacal**)" in adjective **hypochondriac**, and **opposed**, which is given as "(as adj. **opposed**)" in the second sense of **oppose** (59 instances).

11) Dictionary names, *COED*12 and *ODE*3, under the titles *COED*11, *ODE*2, and *COED*10 indicate which type of spelling is introduced in the three dictionaries. "N/A" indicates that dictionaries in the top row do not contain the entry in question. The same

is true with Table 2.5.

12) We must admit that "the exact names of countries and the places" is a subtle phrasing. For example, in **Baltic**, *COED*12 does give, in its first sense of noun,"(**the Baltic**) an almost landlocked sea of northern Europe" and "(also **the Baltic States**) a small group of states on the eastern shores of the Baltic Sea, consisting of Latvia, Lithuania, and Estonia"; *COED*12 seems to contain "the exact names of countries and the places" in its main entries here. However, while *ODE*3 has exact names like **Baltic Sea** and **Baltic States** among its main entries, *COED*12 does not have them as its main entries. Moreover, *COED*12 does not have **Latvia**, **Lithuania**, and **Estonia** in its main entries, either, while *ODE*3 does. In these circumstances, we claim that *COED*12 does not contain "the exact names of countries and the places" in its main entries.

It must be noted here, however, that *COED*12 lists, in its A-Z part, the names of the countries and the places in abbreviated forms. Thus, we can identify main entries like **Conn.** and **DRC**, which are defined in *COED*12 as abbreviated forms of Connecticut and Democratic Republic of Congo, respectively. It must also be noted here that *COED*12 has a 14-page Reference section between J and K. It lists, among others, the names of the countries and the states of the United States of America. Interestingly enough, however, the section does not have a list of counties of the United Kingdom, which is given in an appendix in *COD*9.

13) The reason **Midas touch** becomes a main entry may be due to *COED*12's policy not to list people's names in addition to the exact names of the countries and the places; **Midas** cannot be a main entry in *COED*12.

Section 3

1) As a result of this merger, word pairs such as *horse/hoarse* and *morning/mourning* are homophones in current RP. The NORTH and FORCE vowels are two of the "standard lexical sets," a concept devised by Wells (1982). The words written in small capitals each represent a large group of words that share the same vowel in the accent in question.

2) Wells's 1998 survey here is the one he conducted in preparation for *LPD*2.

Section 4

1) Concerning the order of senses, *CED*1 (1979) says in Guide to the Use of the Dictionary, "As a general rule, where a headword has more than one sense, the first sense given is the one most common in current use. . . . Where the editors consider that a current sense is the 'core meaning,' in that it illuminates the meaning of other senses, the core meaning may be placed first. . . . Subsequent senses are arranged so as to give a coherent account of the meaning of a headword." *CED*1 is considered to be the first dictionary to refer to "core" meaning as far as the GPDs are concerned. It is interesting that P. Hanks is involved in the compilation of both *NODE* and *CED*1. *CIDE* (1995), an MLD, takes a somewhat similar approach to sense description; compare, for example, the entry **climb** (verb) between *NODE* (and *ODE*s) and *CIDE*.

Kipfer also notes (1984: 103) another ordering in *The American Heritage Dictionary of the English Language* (1969) repeated in its first college edition *The American Heritage Dictionary of the English Language* (New College Edition. 1976. Print.): "Numerous English words have a spread of more than three or four distinct meanings or shades of

meaning that must be identified and distinguished as separate semantic aspects and presented in a meaningful and useful order. . . . The order used here is an effort to arrange a complex word in a psychologically meaningful order, with one subgroup leading into another, so that the word can to some extent be perceived as a structured unit rather than a string of unrelated senses" (XLVI). As Kipfer says, its second college edition (1982) modifies the wording: "Rather, they are ordered analytically, according to central meaning clusters from which related subsenses and additional separate senses may evolve. Such meaningful order is considered to be a most useful presentation for the general reader" (49). The idea of this ordering could be similar to or the same as the one in *NODE*, *ODE*s and *COED*s.

2) The core senses of **tweet** and **google** are already given in *ODE*3 and *ODE*2 respectively.

3) The subsense of **DNA** is already shown in *ODE*3.

4) The following numbered senses in *COED*12 are to be found in the original *COD*1: 1, 3, 5a, 6a, 8, and 9.

5) It is interesting that all the sentence-form examples in parentheses (*COD*1 through *COD*9) or without them (*COD*10 through *COED*12) do not begin with capital letters except those beginning with the personal pronoun I or with the proper noun.

6) *COED*11 changed poetic/literary in *COD*10 to literary.

Section 5

1) Here are shown the new usage notes in *ODE*3: **alternate**, **appendix**, **asterisk**, **awhile**, **barbecue**, **biennial**, **bipolar disorder**, **chord**[2], **climactic**, **climatic**, **conjoined twins**, **cord**, **descendant**, **dessert**, **espresso**, **fascination**, **faze**, **glamorous**, **humorous**, **phase**, and **plaintiff**.

Section 6

1) Durkin (2009: 28) discusses the semantic change of the word *meticulous* as follows: ". . . this is a very far from unusual process of semantic change: the word's meaning has first narrowed, and then it has developed more positive connotations or ameliorated—or in this particular instance, it would perhaps be more accurate to say that it has lost its negative connotations."

Section 7

1) http://www.telegraph.co.uk/culture/culturenews/8708448
2) http://www.macmillandictionaryblog.com/bye-print-dictionary

DICTIONARIES CONSULTED and their ABBREVIATIONS

*CCED*8: Anderson, Sandra, et al. *Collins Concise English Dictionary*. 8th ed. Glasgow: HarperCollins Publishers, 2012. Print.

*CED*1: Hanks, Patrick. *Collins Dictionary of the English Language*. London & Glasgow: William Collins & Sons Co., 1979. Print.

*CED*11: Breslin, Gerry, et al. *Collins English Dictionary*. 11th ed. Glasgow: HarperCollins Publishers, 2011. Print.

CIDE: Proctor, Paul. *Cambridge International Dictionary of English*. Cambridge: Cambridge University Press, 1995. Print.

*COBUILD*1: Sinclair, John. *Collins COBUILD English Language Dictionary*. London and Glasgow: Collins, 1987. Print.

*COD*1: Fowler, Henry, and Frank Fowler. *The Concise Oxford Dictionary of Current English*. Oxford: Clarendon Press, 1911. Print. Rpt. in *The Concise Oxford Dictionary of Current English 1911 FIRST EDITION*. Oxford: Oxford University Press, 2011. Print.

*COD*2: Fowler, Henry. *The Concise Oxford Dictionary of Current English*. 2nd ed. Oxford: Clarendon Press, 1929. Print.

*COD*3: Fowler, Henry, and Henry G. Le Mesurier. *The Concise Oxford Dictionary of Current English*. 3rd ed. Oxford: Clarendon Press, 1934. Print.

*COD*4: McIntosh, Ernest. *The Concise Oxford Dictionary of Current English*. 4th ed. Oxford: Clarendon Press, 1951. Print.

*COD*5: McIntosh, Ernest. *The Concise Oxford Dictionary of Current English*. 5th ed. Oxford: Oxford University Press, 1964. Print.

*COD*6: Sykes, John. *The Concise Oxford Dictionary of Current English*. 6th ed. Oxford: Clarendon Press, 1976. Print.

*COD*7: Sykes, John. *The Concise Oxford Dictionary of Current English*. 7th ed. Oxford: Clarendon Press, 1982. Print.

*COD*8: Allen, Robert. *The Concise Oxford Dictionary of Current English*. 8th ed. Oxford: Clarendon Press, 1990. Print.

*COD*9: Thompson, Della. *The Concise Oxford Dictionary of Current English*. 9th ed. Oxford: Clarendon Press, 1995. Print.

*COD*10: Pearsall, Judy. *The Concise Oxford Dictionary*. 10th ed. Oxford: Oxford University Press, 1999. Print.

*COED*10: Pearsall, Judy. *Concise Oxford English Dictionary*. 10th ed. Oxford: Oxford University Press, 2002. Print.

*COED*11: Soanes, Catherine, and Angus Stevenson. *Concise Oxford English Dictionary*. 11th ed. Oxford: Oxford University Press, 2004. Print.

*COED*12: Stevenson, Angus, and Maurice Waite. *Concise Oxford English Dictionary*. 12th ed. Oxford: Oxford University Press, 2011. Print.

*LPD*2: Wells, John. *Longman Pronunciation Dictionary*. 2nd ed. Harlow: Pearson Education, 2000. Print.

*LPD*3: Wells, John. *Longman Pronunciation Dictionary*. 3rd ed. Harlow: Pearson Education, 2008. Print.

NODE: Pearsall, Judy. *The New Oxford Dictionary of English*. Oxford: Oxford University Press, 1998. Print.

*OALD*8: Turnbull, Joanna. *Oxford Advanced Learner's Dictionary of Current English*. 8th ed. Oxford: Oxford University Press, 2010. Print.

*ODE*2: Soanes, Catherine, and Angus Stevenson. *Oxford Dictionary of English*. 2nd ed. Oxford: Oxford University Press, 2003. Print.

*ODE*3: Stevenson, Angus. *Oxford Dictionary of English*. 3rd ed. Oxford: Oxford University Press, 2010. Print.

ODP: Upton, Clive, William A. Kretzschmar, Jr., and Rafal Konopka. *Oxford*

Dictionary of Pronunciation for Current English. Oxford: Oxford University Press, 2001. Print.

*OPD*1: Hawkins, Joyce. *The Oxford Paperback Dictionary*. Oxford: Oxford University Press, 1979. Print.

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An Acoustic Study on the Durational Correlates of Stress in Welsh English[1)]

Marina Arashiro

1. Introduction

The prosody of Welsh English, which is often described as 'sing-song', is noticeably different from that of Received Pronunciation (RP) or Standard Southern British English (SSBE). Its characteristics are considered to be transferred from Welsh, one of the Celtic languages widely spoken in Wales until two centuries ago (Wells 1982: 377). Despite the remarkable prosodic characteristics of Welsh and Welsh English, studies on the two to date have mostly concentrated on their segmental features; their prosodic features are in need of further research. The major works currently available on the prosody of Welsh are Williams (1986) and Rhys (1984), and those on Welsh English are Walters (2006) and Connolly (1981). Although other studies (e.g. Collins and Mees 1990; Connolly 1990) report several noticeable prosodic features in various accents of Welsh English, these studies mainly discuss segmental features.

In addition to the lack of works with which the whole picture of the prosody of Welsh and Welsh English can be grasped, one problem with the previous studies in this field is that there are few acoustic or experimental studies. Most of the previous papers are impressionistic and are not based on acoustic data. Recent progress in the field has been achieved by Webb (2011), who conducted a brief experiment and acoustic analysis of difference in the way of stress manifestation in Welsh, Welsh English, and SSBE. However, as her study deals with only two short vowels, there remains room for further investigation.

Among the previous studies on the prosodic features of Welsh and Welsh English, the topic which has gained the most attention from researchers is stress. The present study also focuses on this aspect of Welsh English and aims to show the peculiarities of stress-induced durational adjustment in Welsh English through acoustic and statistical analyses. The primary concern was to investigate the difference in segmental duration between stressed and unstressed syllables in Welsh English. To this end, a field recording was made in Neath, South Wales. In addition, two speakers of Southern British English (SBE) were also recorded to compare the durational features of the two accents and to demonstrate the peculiarities in stressed segments of Welsh English.

Section 2 will summarise how stress and other factors affect vowel duration in standard accents of English and Welsh, of which features have transferred into Welsh English. The present understanding of stress correlates in Welsh English will also be discussed in Section 2.3. Based on previous studies of both Welsh and Welsh English, an experiment was designed and conducted. The methodology will be outlined in Section 3, and the results of acoustic and statistical analyses will be presented in Section 4. Section 5 will briefly summarise the main findings.

2. Stress systems

2.1. Stress in standard accents of English

In standard accents of English, stressed syllables are set off from the surrounding environment by the acoustic nature of their components. They also serve as the rhythmic beat. Thus, stressed syllables are prominent acoustically as well as rhythmically.

Through acoustic analysis of speech and perceptual experiments, researchers have tried to identify which of the three acoustic correlates, fundamental frequency (Fx), duration, or intensity, is the most important feature for the manifestation and perception of stress (e.g. Fry 1955). It is now generally understood that Fx is the primary cue, while the relative importance of duration and intensity is unclear. In

standard accents of English, stressed syllables usually have a higher Fx or carry Fx movement, and they often have greater (vowel) duration and intensity than unstressed syllables.

In regard to duration, which is of interest of this paper, Fry (1955) observed a major difference between stressed and unstressed vowels (p. 765). In his data, stressed vowels were longer by 50 ms[1] on average than unstressed ones (p. 768). Another experiment found that stressed syllables were more than twice as long as unstressed ones (Fant, Kruckenberg, and Nord 1991: 359). The same trend, the greater duration of the stressed vowel, have also been observed in other languages such as French and Swedish (Fant, Kruckenberg, and Nord 1991).

It should be noted here that several other factors can affect segment duration. These factors include the number of phonemes in the syllable and foot, speech style, speech rate, and the nature of the following consonant. Above all, the nature of the following consonant, particularly the presence/absence of voicing, has a significant influence on the duration of the preceding vowel. When a vowel is followed by a fortis consonant, it becomes markedly shortened compared to when it is followed by a lenis consonant. Peterson and Lehiste (1960) report that short vowels were 60 ms shorter on average when they were followed by a fortis consonant than when they were followed by a lenis. The difference was more conspicuous in long vowels (i.e. long monophthongs and diphthongs); pre-fortis clipping produced more than 100 ms difference on average (p. 702).

2.2. Stress in Welsh

Stress regularly falls on the penult in Welsh.[2] Stressed syllables in Welsh, however, do not have the features described in Section 2.1. It has long been pointed out that stressed penults in Welsh serve primarily as a rhythmic beat, and it is unstressed final syllables which have a higher Fx and longer duration (Jones 1950: 63; Watkins 1954: 8). This observation was borne out in an acoustic study by Williams (1983; 1986). She investigated acoustic features associated with short monophthongs in phonologically stressed penultimate and unstressed ultimate sylla-

bles. Her data showed that vowels in a stressed syllable had little Fx movement and shorter duration, while vowels in an unstressed syllable had greater Fx movement and longer duration, though peak and mean amplitude may be greater in the stressed syllable than in the unstressed syllable (1983: 31–32, 34–36). Because of the dissociation of the physical cues of stress from the stressed syllable[3], it has been reported that final syllables sound as if they are stressed to non-native speakers of Welsh (Watkins 1954: 8; Williams 1983: 31–2, 34–6). Table 1 summarises the features associated with stressed penults and unstressed final syllables in Welsh.

Table 1 Phonetic features of stressed penultimate and unstressed final syllables in Welsh

Acoustic feature	Stressed penult	Unstressed final syllable
Fx (compared with neighbouring syllable)	lower	higher
Fx movement	little movement	greater movement
Duration	shorter	longer
Amplitude	greater	lower

Among the features associated with stress, Williams (1983) found that duration is the most reliable[4]. She then further investigated segmental durations and found that despite being the most consistent cue, the difference in vowel duration was statistically insignificant[5] (p. 37–38).

2.3. Stress in Welsh English

It has been found that Welsh English reflects some prosodic characteristics of Welsh. Most studies on Welsh English to date report phonetic prominence on unstressed syllables following the stressed syllable rather than on the stressed syllable itself (Thomas 1997: 72; Walters 2006: Ch. 5). The durational feature discussed in Section 2.2 has also been observed in Welsh English. There are, however, a few differences. The major difference is that in Welsh English, lengthening as well as shortening occurs in stressed vowels (Walters 2003). One factor which Walters (2003) assumes to condition shortening and lengthening

is the syllable boundary. He writes as follows:

> The indication in the data is that speakers have a measure of freedom how they syllabify. Words of similar phonetic composition and even identical words are found syllabified differently in the data, for example, *second* is found either as [sɛ̆kˑ|ʌnd] or [sɛˑ|knʌd], and *chapel* either as [tʃăpˑ|l̩] or [tʃaˑ|pl̩]. (p. 219, italics in the original)

Walters (2003) further argues that not all vowels are subject to shortening and lengthening. According to his report, shortening was found in any short vowels, while lengthening was found only in the lower vowels /ɛ, a, ɒ/ in open syllables. Likewise, shortened tokens were found with high long vowels, /iː, uː/, and lengthened tokens with other long vowels /eː, ɛː, aː, ɔː, oː, øː/[6]. Diphthongs were found to be shortened frequently (Walters, 2006: Appendix 17). Table 2 summarises the findings of this research.

In regard to vowel shortening, the difference between Welsh English and standard accents of English is that shortening is not caused, at least not solely, by a following fortis consonant. Walters (2003) observed remarkable shortening of stressed vowels followed by a lenis consonant (p. 218).

Table 2 Vowels subject to shortening and lengthening and consonantal environments

Shortening		Lengthening	
Any short vowels: /ɪ, ɛ, a, ʌ, ɒ, ʊ/	Before any single consonant and cluster	Low short vowels: /ɛ, a, ɒ/	When not followed by a consonant in the same syllable
/iː, uː/	Before fortis consonants and clusters	/eː, ɛː, aː, ɔː, oː, øː/	In any context
Any Diphthongs	Before any consonant		

Some of the earlier observations have been supported by Webb's (2011) brief experimental study. She examined four disyllabic English words pronounced by five Welsh/English bilinguals and SSBE speakers. The stressed vowels and post-stress consonants chosen for her experiment

were /a/ and /ɒ/, and /n/ and /s/. Her data showed a statistically significant difference in the duration of post-stress consonants between the two groups: The mean duration was 81 ms in SSBE and 122 ms in Welsh English ($p<.001$). The average duration of stressed vowels was shorter in Welsh English than in SSBE. However, contrary to her expectations, the comparison between stressed and unstressed vowels in Welsh English revealed that the former was in fact longer than the latter (p. 2108). As the stressed vowels investigated in her study are short /a/ and /ɒ/, however, the results are not surprising; these vowels are subject to lengthening as well as shortening, as mentioned above.

3. Experiment

3.1. Experimental design

In order to examine the effect of stress on vowel duration in Welsh English, field recordings were made. Seven Welsh English speakers and two SBE speakers took part in the experiment. All the Welsh English speakers were born and brought up in Mid/West Glamorgan, South Wales. The SBE speakers were born and brought up in London. The SBE speakers were recorded as a reference group to facilitate an understanding of the way and the extent to which Welsh English speakers differ from speakers of the accent varieties of England.

The recordings were held in a hotel room, consultant's house, or sound-proof room. Although the quality of the recordings varied depending on the environment in which the recording sessions took place, it was generally sufficient for acoustic analysis. All the consultants were recorded with computer software for phonetic research, SFS, at a sampling rate of 44100 Hz with a condenser microphone.

During the recording sessions, the consultants took part in a map task. They were shown maps of an imaginary country with the names of islands, towns, and streets. The descriptions of islands, etc. were read aloud by the experimenter, and the consultants were asked to answer with the names in the carrier sentence 'You must mean [ ], then' (placing a name from the map in the square brackets). As the sentence-final adverb 'then' was placed at the end of the sentence, the

names of the islands, etc. received no or only a minimal effect of intonation phrase (IP) final lengthening, which significantly lengthens syllables at an IP boundary.

The maps contained 38 names in total: 26 of them were disyllabic nonsense words, and 12 were distractor words consisted of existing disyllabic English street/place names. The consultants were asked the same 38 questions three times in a random order.

The syllable structures of the nonsense words were CVC, CVCC, VC, or CV. The constituent segments were chosen and arrayed so that they fulfilled the phonotactic constraints of English. Among the 20 vowel phonemes of southern Welsh English, 10 were chosen for the nonsense words. These consisted of four short monophthongs, /ɪ, ɛ, a, ɒ/, four long monophthongs, /iː, eː, aː, ɔː/, and two diphthongs, /ai, au/[1]. For the consonants, fortis and lenis plosives, fricatives, and nasals were employed, and approximants were avoided for ease of segmentation.

All the nonsense words consisted of two identical syllables which differentiated solely by the presence/absence of stress (e.g. /ˈfɪt.fɪt/ and /ˈfɔː.fɔː/). This enabled the investigation of differences in segmental duration caused solely by stress. In addition, as speakers are thought to be conscious about repetition of the same syllable, it was hoped that the nonsense words would automatically imply a syllable boundary and prevent unexpected syllabification.

3.2. Data

The total number of nonsense words annotated for analyses was 562: 451 instances from Welsh English speakers (hereafter, the WE data) and 111 from SBE speakers (hereafter, the SBE data).

Based on previous studies, the vowels were divided into seven groups as shown in Table 3 to facilitate the investigation of the difference in degree and frequency of shortening and lengthening. It must be noted that some of the constituent vowels are different, as the vowel systems of the two accents differ phonologically and phonetically.

Table 3 Vowel groups and their constituents in the WE data

Vowel group	WE vowels	SBE vowels
Short /ɪ/	/ɪ/	/ɪ/
Short Vowels	/ɛ, a, ɒ/	/e, æ, ɒ/
Checked /iː/	/iː/	/iː/
Checked Long vowels	/eː, aː, ɔː/	/ɑː, ɔː/
Free Long Vowels	/iː, eː, ɔː/	/iː, ɔː/
Checked Diphthongs	/ai, au/	/aɪ, aʊ, eɪ/
Free Diphthongs	/ai, au/	/aɪ, aʊ, eɪ/

4. Results and discussion

4.1. Stress-induced durational adjustment in the WE data

4.1.1. Difference between stressed and unstressed vowels

To begin with, absolute durations of stressed and unstressed vowels were obtained from the annotated data, and mean durations (M) for each vowel group were calculated. Differences between stressed and unstressed vowels in the same word were also identified, and the mean values were calculated. The results of these measurements are shown in Table 4. For stressed vowels, the shortest (S) and longest (L) durations found in the WE data are also tabulated. The column of mean difference has a negative value when the stressed vowels are shorter than the unstressed vowels and positive when vice versa.

The table shows negative values in four vowel groups. Among them, Free Long Vowels show the greatest degree of shortening (–16.0 ms), followed by Short /ɪ/ (–9.6 ms) and Checked /iː/ (–3.8 ms). Although Short Vowels also show a negative value, the difference is only a minor one (–0.1 ms). The shorter mean durations of stressed vowels in Short /ɪ/ and Checked /iː/ support previous studies which have reported frequent shortening of these vowels. However, the greatest negative value in Free Long Vowels is an unexpected result, as Walters (2003) argues that vowels become lengthened but not shortened in open syllables (p. 219).

In Checked Long Vowels, Checked Diphthongs, and Free Diphthongs, stressed vowels were longer on average than unstressed vowels

by 0.9, 3.7, and 3.6 ms, respectively. The results for Checked Long Vowels and Free Diphthongs are consistent with those of previous studies. However, the differences between stressed and unstressed syllables were found to be quite small.

Table 4 Results of measurements of the WE data

Vowel category	No.	Stressed			Unstressed (Mean)	Difference (Mean)
		M	S	L		
Short /ɪ/	44	72.5	41.4	110.1	82.1	–9.6
Short Vowels	87	145.6	91.8	185.7	145.7	–0.1
Checked /iː/	73	103.3	58.8	147.6	107.1	–3.8
Checked Long Vowels	78	183.8	113.7	323.4	180.1	3.7
Free Long Vowels	42	155.4	78.5	257.0	171.4	–16.0
Checked Diphthongs	89	180.0	88.9	326.8	179.1	0.9
Free Diphthongs	38	209.9	170	378.4	206.3	3.6

(Unit: ms)

4.1.2. Frequency of shortening and lengthening

Although the mean durations of stressed vowels were shorter than those of unstressed vowels in three vowel groups, this does not mean all the stressed vowels in these categories were shorter than the unstressed ones. Likewise, the longer mean durations of stressed vowels do not mean that all the stressed vowels were longer than the unstressed vowels in those vowel groups. The ratio of shorter stressed vowels, however, differed by vowel group, as illustrated in Figures 1 to 3 below.

In Figure 1, most of the data are plotted above the oblique line, suggesting frequent shortening. A similar, though less striking, graph was also obtained for Checked /iː/. These results reinforce the observation that the two high vowels are frequently shortened in stressed syllables.

Section 4.1.1 mentioned that the greatest degree of shortening found in Free Long Vowels is an unexpected result. This result can be interpreted in two ways. The first interpretation is that shortening may occur in open syllables as well as in closed syllables. The second is that although the nonsense words were designed so that they would

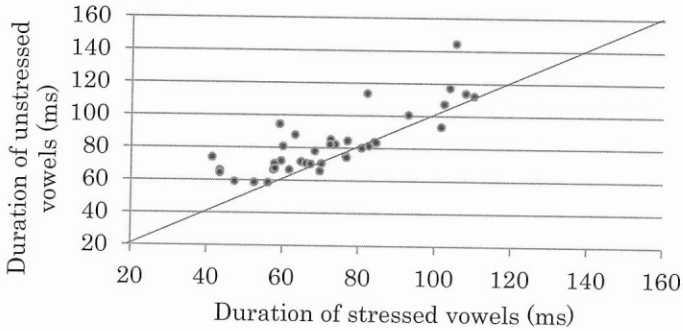

Figure 1 Duration of stressed and unstressed Short /ɪ/ in the WE data

automatically imply a syllable boundary, due to the relatively simple structure, CV.CV, in which free vowels were located, the consultants might have resyllabified them into CVC.V.

A closer investigation indicates that the latter explanation may be correct. Table 4 shows that the mean duration of stressed vowels in Free Long Vowels (155.4 ms) is much shorter than the equivalent in Checked Long Vowels (183.8 ms), even though shortening is not expected to occur in any long vowels except /iː/ (and /uː/) in any environment. In Figure 3 below, the three Free Long Vowels are distinguished with different markers: circles for /iː/, squares for /eː/, and triangles for /ɔː/.

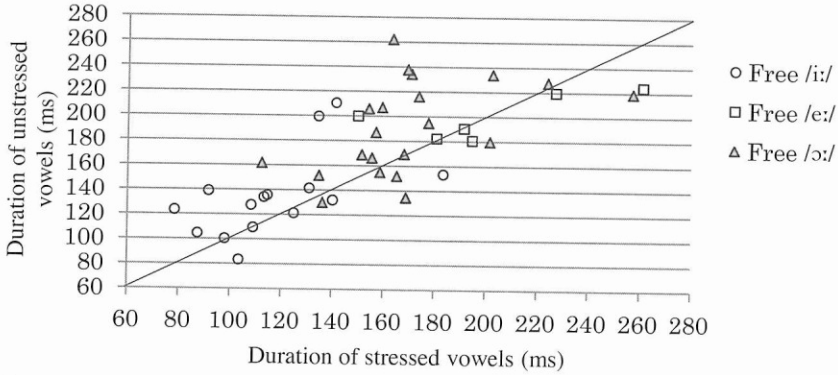

Figure 2 Duration of stressed and unstressed Free Long Vowels in the WE data

As can be seen in Figure 2, the front high vowel, /iː/, clusters around the shorter range of duration and is separated from the other two. Therefore, it can be inferred that the front high vowels which are frequently shortened in checked syllables are the contributing factor of the shorter mean duration of stressed Free Long Vowels in comparison to that of Checked Long Vowels. In fact, the mean durations of /eː/ and /ɔː/ (200.8 and 169.5 ms, respectively) in this group are by no means shorter than those in the Checked Long Vowels (169.1 and 170.0 ms, respectively). It should also be pointed out here that the significant difference between stressed and unstressed vowels in /ɔː/ (–20.4 ms) in the Free Long Vowels is caused by markedly lengthened unstressed vowels rather than shortened stressed vowels. As mentioned, the mean duration of this vowel in stressed syllables is almost the same as that of /ɔː/ in Checked Long Vowels. The significant lengthening of unstressed /ɔː/ is probably due to the syllable structure; vowels in free syllables can readily be lengthened in English, especially in word-final position. These observations suggest that the relatively short mean duration and difference between stressed and unstressed vowels are probably not due to shortening of the stressed free vowels but due partly to re-syllabification and to extra lengthening in unstressed vowels in the word-final open syllable.

Figure 3 is a scatter graph of the Short Vowel durations. In the graph, about half of the data are plotted above the line, and the others

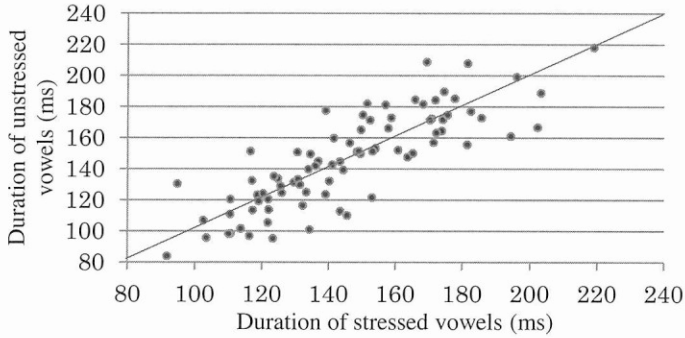

Figure 3 Duration of stressed and unstressed Short Vowels in the WE data

are below. This indicates the equivalent frequency of shortening and lengthening and supports the previous observations. The graphs for the Checked Long Vowels, Checked Diphthongs, and Free Diphthongs show a similar pattern. Though Walters (2006) reports that Checked Diphthongs are frequently shortened, he does not deny the occurrence of lengthening.

However, the result for the Checked Long Vowels is somewhat surprising, given that previous studies have consistently shown vowels in this group are not subject to shortening. On this issue, Connolly (1989) probably gives the best description. Instead of denying the occurrence of shortening in this vowel group, he states that these vowels 'are never fully shortened' (p. 60). The data in the present study also support his description; Checked Long Vowels may be shortened, though the frequency and degree of shortening were not so great in most cases.

The scatter graph for Free Diphthongs also shows about the same amount of shortening and lengthening. Here again, shorter durations of stressed vowels cannot directly be interpreted to mean that shortening occurred in this group. As discussed earlier, given the measure of freedom in syllabification, the possibility remains that the relatively simple syllable structure, CV.CV, caused an unexpected syllabification in several tokens. It was also mentioned that vowels in the word-final open syllables are often lengthened. Considering that the mean duration of stressed Free Diphthongs (209.9 ms) is longer than that of Checked Diphthongs (180.0 ms) and that the mean duration of unstressed Free Diphthongs (206.3 ms) is also longer than that of Checked Diphthongs (179.1 ms), it seems that many of the stressed Free Diphthongs were in fact lengthened, though some of them were shorter than unstressed ones due to either of the abovementioned reasons.

4.1.3. Statistical results for the WE data

Paired sample t-tests were conducted to test the statistical significance of durational differences between stressed and unstressed vowels in the WE data. Significant differences were found for three vowel

groups, Short /ɪ/, Checked Long /iː/, and Free Long Vowels. In Short /ɪ/, in which stressed vowels were most consistently shortened, the difference was significant at the $p<.001$ level. In Checked Long /iː/, although the mean difference was small (−3.8 ms), it was statistically significant at the $p<.05$ level. In Free Long Vowels, although the cause for the observed difference may not be attributed to the presence/absence of stress as discussed above, the mean difference was found to be statistically significant at the $p<.01$ level.

In the other vowel groups, differences were not statistically significant. This may be because lengthening occurred as frequently as shortening did in these groups, cancelling out difference between the stressed and unstressed vowels when averaged.

4.2. Comparison of the WE and SBE data

So far, the focus has been on the difference between stressed and unstressed vowels in the WE data. In this section, measurements of the SBE data will be presented, and differences between the WE and SBE data will be discussed.

To begin with, the duration of stressed and unstressed vowels in the SBE data was measured, and the difference was calculated. Table 5 shows the mean durations of stressed and unstressed vowels, mean differences between stressed and unstressed vowels, and shortest (S) and longest (L) durations of stressed vowels for each vowel category.

Table 5 Results of measurements of the SBE data

Vowel categories	No.	Stressed			Unstressed (Mean)	Difference (Mean)
		M	S	L		
Short /ɪ/	8	88.5	67.3	107.9	74.4	14.1
Short Vowels	16	146.5	110.9	186.0	131.7	16.2
Checked Long /iː/	19	161.4	126.1	237.5	158.5	2.9
Checked Long Vowels	14	187.3	137.1	253.3	172.3	15.0
Free Long Vowels	10	190.0	138.0	253.5	182.46	7.6
Checked Diphthongs	31	221.5	166.1	284.7	206.2	15.3
Free Diphthongs	13	243.0	215.8	284.7	223.5	19.6

(Unit: ms)

One obvious difference between the WE and SBE data is that all columns of mean difference have positive values, indicating that the stressed vowels were longer than the unstressed vowels in all vowel groups in the SBE data. Also, stressed vowels were rather consistently lengthened in the SBE data. This is clearly shown in the scatter graph in Figure 4. In the graph, the absolute duration of unstressed vowels is plotted against the duration of stressed vowel in the same nonsense word. The dots below the oblique line represent instances in which stressed vowels were longer than unstressed ones.

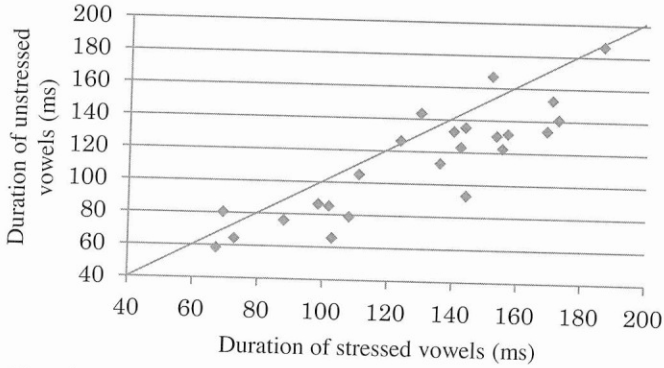

Figure 4 Duration of stressed and unstressed short vowels, /ɪ, e, æ, ɒ/, in the SBE data

Figure 4 shows the scatter plots for short vowels /ɪ, e, æ, ɒ/ in the SBE data. In the graph, the majority is plotted below the oblique line, which indicates that most of the stressed vowels were longer than the unstressed vowels in the SBE data. These results are, on the whole, consistent with the general understanding that vowels are lengthened when they receive stress in most accents of English. Similar patterns were observed in the graphs for all vowel groups in the SBE data. Not a few, however, are plotted above the line, which means that stressed vowels were shorter than unstressed vowels in some instances. This is yet not surprising, given that duration is not the primary cue to the perception of stress in standard accents of English and, hence, it is by no means a reliable cue. In addition, long monophthongs and diph-

thongs in the second syllable may have been weakly stressed, though they never received primary or rhythmic stress in the data. If they had been weakly stressed, vowel reduction would have been prevented. In that case, duration of the 'unstressed' vowel may have become longer than expected. This, however, raises the question of whether or not the assignment of weak stress on the second syllable is the factor of shorter stressed vowels and longer unstressed vowels in the WE data. Although the influence of weak stress cannot be denied, further comparison of the WE and SBE data shows that stressed vowels in the WE data are, on the whole, shorter than those in the SBE data, which indicates that they were shortened indeed.

A comparison of the mean durations of stressed vowels in the WE and SBE data reveals the mean durations of stressed vowels are shorter in the former than in the latter. Table 6 shows the mean durations of stressed vowels in the WE and SBE data. Negative values in the bottom line of the table mean that the mean duration of a given vowel group was shorter in the WE data than in the SBE data.

Table 6 Comparison of mean durations of stressed vowels in the WE and SBE data

	Short /ɪ/	Short Vowels	Long /iː/	Long Vowels		Diphthongs	
			Checked	Checked	Free	Checked	Free
WE (mean)	72.5	145.6	103.3	183.8	155.4	180.0	209.9
SBE (mean)	88.5	146.5	161.4	187.3	190.0	221.5	243.0
WE-SBE	−16.0	+0.1	−58.1	−3.5	−34.6	−41.5	−33.1

(Unit: ms)

The table demonstrates that difference is particularly great in the vowel categories where frequent shortening was found in the previous sections. In Short /ɪ/, Checked Long /iː/, and Checked Diphthongs, the differences in mean duration of stressed vowels are −16.0, −58.1, and −41.5 ms, respectively. Independent sample t-tests were carried out, and a high statistical significance was detected in Checked Long /iː/ ($p<.001$) and Checked Diphthongs ($p<.001$). The difference was also found to be statistically significant in Short /ɪ/ at the $p<.05$ level. Inter-speaker-group difference is also remarkable and statistically sig-

nificant in Free Long Vowels and Free Diphthongs. However, as has been argued, it is uncertain whether the vowels in these groups were treated as free vowels by the Welsh English speakers.

Meanwhile, the inter-speaker-group difference was quite small in Short Vowels and Checked Long Vowels, far from the level of significance. In the previous sections, it was revealed that the shortening of stressed vowels is not remarkable in these groups in the WE data.

4.3. Pre-fortis clipping

This section will show another inter-speaker-group difference which is not directly related to stress but is still of importance. As mentioned in Section 2.1, vowels are markedly shortened in standard accents of English when they are followed by a fortis consonant. As vowel duration serves as an important cue to distinguish phonological voicing of the following consonant in such accents of English, pre-fortis clipping occurs quite regularly. The SBE data show clear evidence of pre-fortis clipping, as illustrated in Figure 5. The figure shows that the range of duration of Checked Long Vowels in the SBE data was shorter (between 160 and 240 ms) when they were followed by a fortis consonant and longer (between 200 and 290 ms) than when they were followed by a lenis consonant. As can be seen in the figure, although there is some overlap, the clustering patterns are evident.

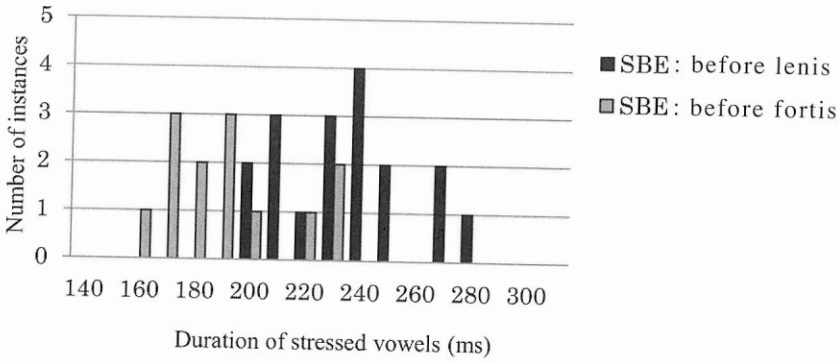

Figure 5 Histogram of the duration of Checked Long Vowels /iː, aː, ɔː/ in the SBE data

Such clustering patterns were not observed in the WE data. Figures 6 and 7 show the range of duration of Checked Long /i:/ and Checked Long Vowels in the WE data.

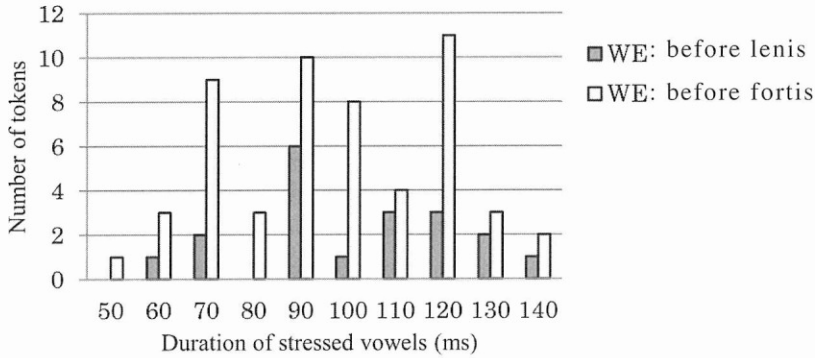

Figure 6 Histogram of the duration of Checked Long /i:/ in the WE data

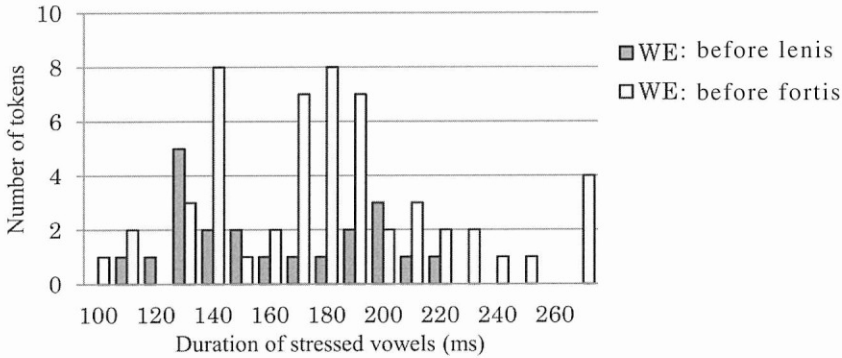

Figure 7 Histogram of the duration of Checked Long Vowels in the WE data

In the graphs, vowels in both consonantal environments scatter across the wide range of duration, and the clustering pattern observed in the SBE data cannot be found in the WE data. This suggests that pre-fortis clipping does not occur in Welsh English, and therefore, vowel shortening in the WE data discussed above is independent of phonological voicing of the following consonants.

5. Conclusion

The present paper investigated the durational correlates of stress in Welsh English. The methodology included several important improvements over the methods used in previous studies. First, experimental recordings were made, and the data were acoustically analysed. Second, the present research investigated a wide range of segments by which differences were revealed in the frequency and degree of shortening and lengthening between vowel groups. Lastly and most importantly, the experiment was designed so that factors other than stress would not, or only minimally, affect segment duration. To this end, nonsense words which consisted of two identical syllables were invented, and they were pronounced in the non-final position of the carrier sentence. It should be admitted that due to the experimental environment of the recording sessions and use of nonsense words, the audio data were by no means natural speech. In addition, the amount of data was not large enough to draw a definite conclusion. The results of analyses, however, successfully demonstrated evidence of unique and complicated durational adjustment caused by stress in Welsh English.

In summary, among seven vowel groups of Welsh English, degree and frequency of stress-induced shortening were the greatest in Short /ɪ/ and Checked Long /iː/. Statistically significant differences were also found between stressed and unstressed vowels and between the stressed vowels of Welsh English and SBE.

In Short Vowels, Checked Long Vowels, and Checked Diphthongs, some of the tokens were shortened while others were lengthened. Among these three groups, the degree and frequency of Checked Long Vowels were found not to be as great as the other two were. It should be noted that the results cast doubt on Walters' assumption that the choice of shortening and lengthening is conditioned by syllabification of the post-stress consonant (see Section 2.3). In most of the nonsense words in these vowel groups, the segments were chosen and arrayed so that phonotactic constraints would be violated if syllabification changed. For example, in a nonsense word /das.das/, it is unlikely that Welsh English speakers would change the syllabification into /da.sdas/

because the consonant cluster /sd/ in the onset is not allowed in the phonotactic rules of English.

Shortening was also found in Free Long Vowels and Free Diphthongs, in which only lengthening was expected. However, it was argued that because of the relatively simple syllable structure, uncertainty remains as to whether the vowels were treated as 'free' vowels by the Welsh English speakers, and it is also likely that the word-final unstressed vowels were considerably lengthened, making the relative duration of stressed vowels shorter than them.

The present study provided quantitative data which, on the whole, supports the results of previous studies. However, the question of whether or not the syllable boundary promotes and prevents stress-induced shortening and lengthening in Welsh English remains. Further experiments are needed to answer this question. Also, more studies are required to examine the effect of stress on segmental durations in more natural speech.

NOTES

Title

1) This paper is a revised version of my MA theses submitted to University College London and Tokyo University of Foreign Studies.

Section 2

1) Calculated by the author on the basis of data presented in Fry (1955: Appendix).

2) Some words have stress on the ultimate or antepenultimate syllable, but in such cases, they are mostly complex words or loan words.

3) Previous researchers considered that the unique stress system of Welsh was brought about by a historical change called the Old Welsh Accent Shift. Williams (1986) explains that though two elements of accent, 'stress element' and 'pitch element', had been on the same (ultimate) stressed syllable in Old Welsh, the Old Welsh Accent Shift which took place in the late eleventh century shifted the stress element from the ultimate to the penultimate syllable and left the pitch element on the final syllable (pp. 48–49). Thus, stressed penults in present-day Welsh tend to have greater amplitude, while unstressed final syllables often bear pitch prominence.

4) All stressed monophthongs in citation form and 76 percent of stressed monophthongs in continuous speech had a shorter duration than unstressed ones. The duration of long vowels was not measured because long vowels do not occur in unstressed syllables and, hence, are incomparable in Welsh (Williams, 1986: 37–42).

5) In Welsh, post-stress consonantal lengthening is also a noticeable feature. Williams (1986) found that the difference between the duration of consonants after a stressed vowel (94 ms) versus after an unstressed vowel (81 ms) is statistically significant at the level of $p<.05$ (p. 38–42).

6) Note that, the vowel system in Welsh English is influenced by Welsh, some of the vowels listed are absent in the vowel inventory of standard accents of English. For example, /eː ɛː aː ɔː oː øː/ are FACE with monographic spelling (i.e. 'a' but not with digraphic spelling such as 'ay'), SQUARE, START, NORTH/FORTH, GOAT with monographic spelling (i.e. 'o' but not 'ou'), and NURTH, respectively (Standard lexical sets are from Wells (1982)). For the vowel system of Welsh English, see Penhallurick (2004) and Wells (1982: 377–393)).

Section 3

1) No high back vowels, /ʊ, uː/, were used due to the wide range of realisation forms (Walters 2006: Ch. 1–3.6 and 3.14).

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(2013 年 5 月　S. M.)