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Niall Curry, Robbie Love and Olivia Goodman

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Adverbs on the move: investigating publisher application of corpus research on recent language change to ELT coursebook development

Niall Curry, Coventry University, UK

Robbie Love, Aston University, UK

Olivia Goodman, Cambridge University Press, UK

Author note

Niall Curry <https://orcid.org/0000-0002-4471-6794>

Robbie Love <https://orcid.org/0000-0002-7212-1165>

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Correspondence concerning this article should be addressed to Dr Niall Curry, Coventry University, Centre for Academic Writing, CV15FB, UK. Email: ad3377@coventry.ac.uk

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Abstract

While the role Corpus linguistics (CL) in language teaching and learning continues to evolve, its use in the language teaching industry remains somewhat unclear. The specific ways in which ELT publishers use CL research to inform materials development are under-studied, meaning that it is not known whether CL is being used by publishers to its full potential. This study investigates the use of CL research by a major international ELT publisher by conducting research into recent change in adverbs in casual spoken British English and sharing the findings with editors from the publisher. Through our analysis, we find evidence of major recent changes in the usage of frequent adverbs. Following the corpus analysis, we conducted in-depth interviews with the editors and a review of the materials they subsequently produced using the corpus findings. In so doing, we find some evidence of effective use of corpora in materials development but reveal limitations in current corpus research which prevent editors from employing CL research more effectively.

Keywords: Corpus linguistics, adverbs, spoken British English, language change, ELT, materials development

1. Introduction: Corpus linguistics and the English language teaching industry

In the language teaching industry, corpus linguistics occupies an increasingly important space, and it is well acknowledged that corpus linguistics research on spoken, written, academic, and learner language, for the purposes of investigating language change, variation, and interference can be used to indirectly inform learner coursebooks, grammars, and dictionaries (Römer, 2011) and directly inform classroom teaching and learning (Römer, 2011), albeit to varying degrees (Chambers 2019). While teachers and learners, and to a lesser extent, materials writers have been a focus of research in this areas, there is little known about exactly how corpus linguistics research is applied, in practical terms, by certain agents within this industry, such as publishers. Therefore, the goal of this paper is to investigate and demonstrate how and why editors at an English language teaching publisher engage with corpus linguistics research to inform the development of language teaching and learning resources.

The specific publisher with whom this research was conducted is Cambridge University Press, who, in collaboration with Lancaster University, developed the spoken component of the British National Corpus 2014 (Spoken BNC2014, Love *et al.*, 2017). In their article on the construction of the corpus, Love *et al.* (2017) demonstrate the potential for this new instalment of the spoken BNC to facilitate sociolinguistic and diachronic studies of British English. While their study makes clear the value of this dataset to researchers in corpus and applied linguistics, the Spoken BNC2014 was also created for another purpose: to inform the development of English language teaching materials. Our paper focusses on the exploitation of the Spoken

BNC2014 for English language teaching materials development and, in doing so, comments more broadly on how corpus research is used in the development of contemporary English language teaching resources.

To achieve our aim, we conducted a longitudinal study, mapping the application of corpus linguistic research to materials development. Beginning with a series of five case studies, involving the analysis of changes in adverb use in spoken British English conversation, we produced a number of insights on language change to inform the development of corpus-informed materials. We conducted interviews and shared our findings with four editors at Cambridge University Press who were working on a number of coursebooks due for publication. Finally, we reviewed a sample of educational materials informed by the corpus research we shared with them. In doing so, this paper illuminates the process by which publishing houses and their editorial teams use corpus linguistics to inform the development of language teaching and learning resources. Overall, our paper makes three distinct contributions. Firstly, it offers empirical findings on change in syntactic and functional adverb use in spoken British English conversations. Secondly, it offers insight into the process by which the English language teaching industry exploits such findings from language corpora. Thirdly, it offers theoretical perspectives on the development of corpus-informed educational materials. Of course, it must be noted that conducting the study with Cambridge University Press is a matter of consequence as, historically, Cambridge University Press has shown a strong interest in corpus linguistic work, pioneered by Ron Carter and Mike McCarthy. Therefore, the findings of this study do not reflect a general view of publisher engagement with corpus linguistics but the engagement with corpus linguistics by a specific publisher, internationally acknowledged for supporting corpus linguistics applications to language education.

2. Corpus research and English language teaching

2.1 Indirect application to materials development

In order to situate this study within its wider theoretical context, this section offers a brief review of relevant literature on the indirect applications of corpus linguistics to language teaching materials development, with a specific focus on the production of language coursebooks.

Corpus linguistics has made strong indirect contributions to many areas of language pedagogy. Since the ‘corpus revolution’ of the 1980s, corpus linguistics has made significant indirect contributions to lexicography and, over time, it has become more commonplace for reference material for language learning such as dictionaries, grammars, and coursebooks to be corpus-informed (Hunston, 2002; McEnery and Xiao, 2005; Römer, 2011). O’Keeffe and Farr (2012) find that corpora can be used as tools to improve teachers’ knowledge, efficacy, and insight; in so doing, developing a teaching expertise. Further applications of corpora to English language teaching have resulted in corpus-based syllabus development (Timmis, 2015) and corpus-based language testing and assessment (Curry and Clark, 2020). In the context of corpus-informed language coursebooks, titles such as *Touchstone* (McCarthy *et al.*, 2004-2006) and *Unlock 2nd*

ed. (Adams *et al.*, 2019), reflect a growing corpus application to materials development in the language teaching industry.

Nonetheless, there remains a degree of opacity surrounding the process in which corpus linguistics is used to support the development of coursebooks. McCarthy (2008) distinguishes between corpus-based and corpus-informed coursebooks. The former refers to those coursebooks whose construction is based on a faithful interpretation of the corpus data, while the latter pertains to coursebooks that use corpus data in conjunction with wider contextual information to make decisions about coursebook composition. To-date, most coursebooks that engage with corpus data are corpus-informed rather than corpus-based, and McCarten (2012) presents a detailed description of the application of corpora to coursebooks to inform their language foci; to offer tips on useful language; to give frequency information on language; and to inform a more authentic presentation of language through a coursebook, where authenticity here implies that the language presented in coursebooks as well as the guidelines for its usage derive from descriptions of natural language use.

When focussing on authors' perceptions of using corpora for coursebook development, Burton (2012) finds that while most authors surveyed make some use of corpora, this use is inconsistent overall. Authors appear to use corpora to 'inform the grammatical and lexical content of their coursebooks' (p. 104) and do so of their own initiative. He finds that only half of the authors surveyed see corpora as important to the development of their materials. A similar ambivalence towards using corpora for materials development is reported by Ur (2017), who argues that materials writers do not have the time, need, access, or requisite skills to engage with certain types of research in a meaningful way. Ur (2017) does not identify the potential role of publishers in using research to support the development of education materials for language teaching. McCarten (2012) includes publishers regularly in her discussion of the application of corpora to language learning. In many instances publisher practices are joined with those of writers, examination bodies, research groups, teachers, and researchers, rendering it difficult at times to isolate publisher practices. However, she does identify that publishers specifically make use of and develop learner corpora for coursebook development. Conversely, Burton (2012), based on his interviews with coursebook writers, tentatively claims that there is an 'apparent lack of interest among most publishers in the use of corpus data' (p. 104). To encourage publisher engagement with corpora, McCarthy (2008) called for teachers to engage more with corpus linguistics, and this goal has largely been achieved in the field of teacher education (Naismith, 2017; Farr and O'Keeffe, 2019). Notably, the degree to which corpora are used in this area is typically constrained by several competing factors, such as market needs, age of intended user, first language of intended user, purpose and aim of the coursebook, scalability and reproducibility for varied international markets, levelling, and printing and typesetting constraints (Gray, 2010; McCarten, 2012). As such, corpora are among other key sources of information that appear to guide the construction of coursebooks. This overall the lack of transparency surrounding publisher practices is noteworthy, especially given that language education publishers have been engaged with the development of a range of corpora

over the last 20 years.¹ This leads us to two fundamental questions that we investigate in this study:

- How do publishers manage the use of corpora in their coursebooks?
- What is the role of the editorial process in developing corpus-informed coursebooks?

This paper addresses these questions by combining corpus analyses, interviews with English language teaching materials editors, and a review of corpus-informed materials. The interviews and materials review centre on the findings produced from five case studies, analysing the syntactic and functional change in adverb use in casual spoken British English between the 1990s and 2010s. The following section briefly reviews research on adverbs in English language teaching coursebooks and corpus-informed pedagogical grammars.

2.2 Adverbs and language change

As a lens through which to investigate the use of corpora in materials development, we chose to investigate adverbs, which are a core facet of the lexicogrammar components of English language coursebooks. Koprowski (2005) identifies the inclusion in coursebooks of intensifying adverbs, such as *very* and *absolutely*, which are intended to teach students to combine intensifiers with a range of adjectives e.g. *very good*. Similarly, adverbs like *just* have been found to be a feature of spoken language in listening scripts, where *just* acts as what Campillo (2008) calls a downtoner, which mitigates the force of requests. Further functions of adverbs taught in coursebooks include adverbs of degree (Criado and Sánchez, 2009), evaluative adverbs (Maley and Prowse, 2013), adverbs as modality (Gabrielatos, 2013), and *-ly* adverbs (Matijević *et al.*, 2013). Furthermore, Phoocharoensil (2017) finds linking adverbials, such as *so*, to be a key feature of adverbs presented in EAP coursebooks. The syntactic behaviour of adverbs has also been documented in coursebooks, whereby students focus on positioning adverbs accurately within sentences and utterances (Criado and Sánchez, 2009; Mishan, 2013).

Generally, while adverbs are a consistent feature of English language coursebooks, a recurring criticism in the literature is the limited range of adverbs and functions presented in them (Koprowski, 2005; Phoocharoensil, 2017). Moreover, in the representation of spoken language in coursebooks, the lack of representative adverbial use has come under criticism, with spoken texts in coursebooks being seen to haphazardly reflect authentic spoken language varieties (Timmis, 2012). Following Burton (2012) and Ur (2017), these criticisms may be related to materials writers' lack of engagement with corpora; however, given that language education publishers have developed corpora, it is worth investigating why spoken language adverbial syntax and function may be reflected in language materials in a somewhat restricted fashion, and whether editors at publishing houses have any role in this.

¹ For example, the construction of the Cambridge Learner Corpus began in 1993 (Nicholls, 2003), and the Longman Grammar of Spoken and Written English, a corpus-based grammar, was published in 1999 (Biber *et al.*, 1999).

Within the academy, linguists have been using corpora to investigate adverbs for decades. For example, studies on the BNC1994 have found that adverbs such as *dead* hold a distinctive collocational profile, collocating largely with positive adjectives, while *totally* has a largely negative semantic preference (Kennedy, 2003). According to Kennedy, this refutes Biber et al.'s (1999, p.564) previous claim that "in many cases, there is little semantic difference between the degree adverbs" (Kennedy 2003, p.471). Kennedy argues that knowledge of the complexity of such relationships between adverbs and adjectives should be used in the English language teaching classroom, but that whether this should be introduced explicitly or implicitly was a point for debate. Further research on intensifier synonymy in the BNC1994 identifies that adverbs like *actually* and *really* "are not in fact interchangeable" (Gray 2012, p.169); a finding which is in line with that of Oh (2000), Tao (2007), and Wagner (2017). In research on adverbial syntax, Waters' (2013) comparison of two vernacular varieties of spoken English (Toronto, Canada and York, England), found similarities in the order of adverbs and auxiliary verbs; both varieties showed a preference for postauxiliary placement (e.g. it might potentially escape). Furthermore, Song (2011), in a study of the adverb *like*, finds that pragmatically, *like* can act as an approximator, an exemplifier, a hedge, a filler, a focus marker, and a quotative complementiser, while largely serving to compare and approximate. Such studies of adverb behaviour fit within a wider, more compressive context of pedagogical grammars, which are pervasive in the English language teaching context. These resources are a particularly valuable means to understand how corpus research on adverbs are presented to language teachers. A key example of such a grammar lies in Biber *et al.* (1999), who used the 40-million-word Longman Spoken and Written English corpus to inform their grammar of English (the *Longman Grammar of Spoken and Written English*). This corpus contains nearly four million words of British English conversation, as well as 2.5 million words of American English conversation and six million words of non-conversational speech (Biber *et al.*, 1999, p.25). In terms of syntactic behaviour, adverbs were found broadly to act as either modifiers or adverbials. Furthermore, they were found to be heavily contextualised and polysemous, fulfilling a range of semantic functions.

Another grammar of note is Carter and McCarthy's (2006) *Cambridge Grammar of English*. Carter and McCarthy (2006) provide a 'useful characterisation...of the distinctive features of spoken grammar' (McEnery and Hardie 2012, p.86), and present a framework listing the following types of syntactic modification (Carter and McCarthy, 2006, pp.456-7):

- Adverb phrase modifying verb phrase
 - Example: *He's played extremely well*
- Adverb phrase modifying adjective phrase
 - Example: *It was perfectly acceptable*
- Adverb phrase modifying adverb phrase
 - Example: *She'd worked extremely hard*
- Adverb phrase modifying noun phrase
 - Example: *It takes quite a dose to reach fatal levels*
- Adverb phrase modifying prepositional phrase
 - Example: *The situation was completely out of control*

Turning to function, Carter and McCarthy's 'types of meaning' of adverbs (2006, p.456) present the following semantic functions:

- Manner:
 - Definition: Adverbs that refer to how something happens.
 - Example: *The flowers grow **quickly**, don't they?*
- Place:
 - Definition: Adverbs that refer to where something happens.
 - Example: *Many **locally** owned bookshops are cutting prices.*
- Time:
 - Definition: Adverbs that refer to when something happens.
 - Example: *He came in very **early**.*
- Duration:
 - Definition: Adverbs that refer to the length of time over which something happens.
 - Example: *I'm not staying there **permanently**.*
- Frequency:
 - Definition: Adverbs that refer to how often something happens.
 - Example: *I **often** go and see them.*
- Degree:
 - Definition: Adverbs that refer to the degree to which something happens.
 - Example: *I was **greatly** relieved when we were finally rid of her.*
- Focusing:
 - Definition: Adverbs that help to focus on or specify something.
 - Example: ***Just** ice-cream please.*
- Modal:
 - Definition: Adverbs that express modality (epistemic, deontic, dynamic).
 - Example: *She most **probably** thinks I'm joking.*
- Evaluative:
 - Definition: Adverbs that express some judgement or opinion.
 - Example: *I **stupidly** forgot to mention the meeting to him.*
- Viewpoint:
 - Definition: Adverbs that express a perspective or point of view.
 - Example: *I **personally** don't think you would hate it, Elaine.*
- Linking:
 - Definition: Adverbs that link and relate clauses and sentences to one another.
 - Example: *She wanted to study but there wasn't any provision. **However**, her younger sisters are now studying.*

While such pedagogical grammars offer very detailed and valuable descriptions of language, they are liable to aging fairly quickly. With the need for up-to-date language use to inform language teaching materials development (Mishan, 2005), research on grammar must continually update to reflect ongoing language change.

Turning to our focus on very recent change in spoken British English, two recent studies (Fuchs, 2017; Aijmer, 2018) have investigated change in adverbs between the 1990s and 2010s, using two corpora: the spoken components of the BNC1994 (BNC Consortium, 2007) and the BNC2014 (Love *et al.*, 2017). Fuchs (2017) finds that intensifiers have increased in usage, and that a previously attested preference for male usage over female usage had levelled out. Aijmer (2018) focusses on new and unusual intensifiers which appear to be in the process of undergoing delexicalisation e.g. the broadening of the collocational patterns of “fucking” to include positive as well as negative and neutral collocations, and grammaticalisation e.g. the increased use of “fucking” as an adverb of degree. Fuchs (2017) and Aijmer (2018) show that there is already some evidence that English adverbs have changed over a relatively short period of time in spoken British English. There is clearly a case for conducting a further study of adverbs in the two spoken British National Corpora; this is the first opportunity researchers have had to track changes in the use of adverbs in spoken British English over a two-decade period. Therefore, this set of case studies aim to build upon studies like Fuchs (2017) and Aijmer (2018) by investigating changes in the usage of adverbs between the 1990s and 2010s. Recognising the importance of up-to-date language use to language learners, these case studies focus on change in five adverbs in order to document language, industry practices and indirect applications of corpus linguistics to language coursebook development.

3. Data and methodology

This study takes a longitudinal approach by tracking the journey that corpus research makes from the researcher to the coursebook. We used the following methodological procedure:

- Step 1: conduct corpus analysis of usage of adverbs in the Spoken BNC1994DS and the Spoken BNC2014;
- Step 2: conduct interviews and share findings with coursebook editors at Cambridge University Press;
- Step 3: conduct qualitative analysis of extracts from coursebooks to identify how corpus research informs the coursebooks.

Each step of this procedure is discussed in the following sections.

3.1 The Spoken British National Corpora

We started by conducting five case studies on adverbs in spoken British English. The corpora used in this study are sourced from the spoken components of the two British National Corpora, which were sampled from the 1990s and 2010s, respectively. The first is the spoken, demographically-sampled, part of the BNC1994 (BNC Consortium, 2007), which contains 5,014,655 tokens of transcribed informal conversation, recorded among 1,408 speakers across 153 conversations. The second is the Spoken BNC2014 (Love *et al.*, 2017), which contains 11,422,617 tokens of transcribed informal conversation, recorded among 668 speakers across 1,251 texts. Both corpora can be said to represent informal spoken British English, as spoken mostly in England; the representativeness of both corpora is discussed in detail by Love (2020). The Spoken BNC2014 was constructed jointly by Lancaster University and Cambridge

University Press, and is part of Cambridge University Press's *Cambridge English Corpus*, which is available for use by the publisher for a range of purposes, including materials development.

The Spoken BNC2014 is designed to be comparable to the demographically-sampled part of the Spoken BNC1994 for the purpose of comparing informal spoken British English from the 1990s and 2010s (Love *et al.*, 2017). Ideally, studies of language change should investigate data from a greater number of sampling points in time (cf. Millar, 2009); comparing only two sampling points necessarily limits the extent to which we can generalise our findings as being part of any larger trend in language change. However, in the case of the burgeoning BNC 'family', there are, at present, only two members. In other words, the Spoken BNC2014 represents only the second sampling point of its type. Spoken corpus data that were sampled from time periods earlier than the 1990s do exist (e.g. the London Lund Corpus, Svartvik and Quirk, 1980), but they are not comparable, in size or design, to the Spoken British National Corpora. So, we have limited ourselves to investigating only two sampling points in time, with the caveat that all observed 'changes' between the two sampling points should not be extrapolated beyond the limits of these datasets.

Both corpora were accessed via Lancaster University's CQPweb server (Hardie, 2012). Both are tagged for part-of-speech by CLAWS (Garside, 1987), with the BNC1994 using the C5 tagset and the BNC2014 using the C6 tagset. The differences between the tagsets (which are discussed by Love, 2020) are minor and do not affect our study.

3.2 Interviews with coursebook editors

Interviews were carried out with four participants who hold editorial roles at Cambridge University Press. These participants were chosen because, at the time of interview, they were working on the development of coursebooks intended for adult and teenage contexts that were due for publication over the course of this study. The goal of these interviews was to better understand how publishing teams engage with corpus linguistics, and research derived from corpus studies, in the development of English language teaching coursebooks. The interviews followed a structured approach where identical questions were asked of each participant:

1. What do you understand by corpus linguistics?
2. How have you, if ever, used corpus linguistics in your work?
3. Do you think corpus linguistics has improved the editorial choices you make? If so, why and how?
4. [Explain findings from case studies on adverbs]. What would you do with this information?
5. Do you think these language insights have a role in developing everyday conversation skills? If so, why and how?

6. Do you think these kinds of insights are useful for teachers? If so, why and how?
7. Do you think these kinds of insights are useful for students? If so, why and how?
8. Is there anything else you would like to add about your use of corpus linguistics/data from corpus research?

It was decided to use predetermined questions with each editor as, as part of the longitudinal study, we were interested in specifically accessing the editors' knowledge of corpora and their projected use of insights from our case studies. The use of predetermined questions allowed for a more controlled and focussed interview process which could help us move from corpus analysis, to interviews, to a review of corpus-informed materials. In hindsight, we recognise that Question 3 may be somewhat leading, following Oppenheim's work on questionnaire design and issues pertaining to "do you think" questions. This should be recognised as a potential limitation of this study. Upon completion of the interviews, the answers to these questions were noted by the interviewers. These answers have informed the overall identification of editorial practices presented in Sections 4.2.1 and 4.2.2.

In terms of corpus insights presented in Question 4, it is important to recognise that the editors were approached initially to see if they would be interested in getting some insight into how adverb use may have changed over time. This was proposed as it may have been useful for informing the coursebooks on which they were working. The four editors acknowledged that receipt of this information would be useful. For this study, during the interview, each editor was presented with an oral summary of the key findings of the case studies that are presented in Section 4. The oral summary included an explanation of changes over time in frequency, syntax and function, alongside examples illustrating these functional and syntactic changes, as well as pertinent contextual demographic information. After the interviews, the editors were given a written report of the findings from the case studies that matches the information presented in Section 4. The editors also had access to an in-house team of researchers who could offer them further support in using and understanding this information.

3.3 Review of corpus-informed materials

Subsequent to the interviews, the editors took considered our findings in the production of new Cambridge University Press coursebooks. One year later, the editors provided us with copies of the newly published, corpus-informed materials, which included the coursebooks *Talent* level 2 (Cowan *et al.*, 2018) and level 3 (Kilbey *et al.*, 2018) and *Evolve Level 6* (Goldstein and Jones, 2019). We then reviewed these materials to evaluate the use of our corpus findings.

4. Results

This section presents the results of five case studies of change in adverbs, followed by an analysis of the interviews we conducted with coursebook editors in response to our findings, and a review of the use of our findings in the coursebooks the editors produced.

4.1 Change in adverbs in the Spoken BNC1994DS and Spoken BNC2014

Using the simple queries *_AV** and *_R** for the Spoken BNC1994DS and 2014 respectively, we searched for all adverbs in both corpora. Overall, use of adverbs is significantly higher in the Spoken BNC2014 (100,576 per million) compared to the Spoken BNC1994DS (77,250 per million) ($p < 0.0001$, log ratio 0.38). The most frequent adverb forms were extracted and their rank, frequency, and percentage distribution of adverbs within each corpus is presented in Table 1. These adverb forms account for two thirds of all adverb usage in each corpus.

Table 1 Top two thirds of adverb usage in the Spoken BNC1994DS and Spoken BNC2014

Spoken BNC1994DS				Spoken BNC2014			
Rank	Adverb	No. of occurrences	Percent	Rank	Adverb	No. of occurrences	Percent
1	well	35,291	9.11	1	so	94,873	8.26
2	so	22,516	5.81	2	just	84,031	7.31
3	just	19,546	5.05	3	like	72,388	6.3
4	there	17,588	4.54	4	well	68,228	5.94
5	then	17,539	4.53	5	then	50,391	4.39
6	up	17,303	4.47	6	really	48,492	4.22
7	out	14,146	3.65	7	there	31,936	2.78
8	now	11,796	3.05	8	up	29,443	2.56
9	on	11,477	2.96	9	right	24,038	2.09
10	right	9,960	2.57	10	out	24,023	2.09
11	really	9,127	2.36	11	how	23,108	2.01
12	here	8,669	2.24	12	now	21,270	1.85
13	how	8,362	2.16	13	very	18,072	1.57
14	down	8,177	2.11	14	actually	17,525	1.53
15	where	6,939	1.79	15	quite	17,455	1.52
16	in	6,741	1.74	16	okay	17,370	1.51
17	why	6,519	1.68	17	where	16,410	1.43
18	very	6,445	1.66	18	why	15,204	1.32
19	back	5,931	1.53	19	on	14,378	1.25
20	only	5,597	1.44	20	back	13,402	1.17
21	like	5,574	1.44	21	here	12,884	1.12
22	off	5,329	1.38	22	probably	11,595	1.01
	TOTAL	260,572	67.27		TOTAL	768,043	66.85

It is noteworthy that adverbs, *just*, *so*, and *well* are among the top four in each corpus. Also of note is the higher ranking of *like* in the Spoken BNC2014; this accounts for 6.3% of all adverb usage in the Spoken BNC2014, while only 1.44% of all adverb usage in the Spoken BNC1994DS. The higher ranking of *-ly* adverbs in the Spoken BNC2014, such as *actually* and *probably*, is also noteworthy.

Most of the adverb types in the top two thirds for both corpora are shared. This shows that there is, generally, stability in the most frequent adverb types across both corpora. However, in comparing the adverbs across corpora, it emerges that there are shifts in individual adverb use. Adverbs such as *like*, *really*, *just*, and *so* have all increased in use, significantly, as presented in Table 2. There is also a significant decrease in adverbs such as *well* and *now*.

Table 2 Directions of change in adverb use based on the Spoken BNC1994DS and the Spoken BNC2014, ranked by effect size

Adverb	Spoken BNC1994DS		Spoken BNC2014		Log-likelihood	Log Ratio	Direction of change statistically significant (if)
	Raw Freq. 1994	Relative Freq. 1994	Raw 2014	Relative Freq. 2014			
like	5574	1111.54	72388	6337.25	25777.61	2.51	up
really	9127	1820.07	48492	4245.26	6608.50	1.22	up
just	19546	3897.78	84031	7356.55	7242.31	0.92	up
so	22516	4490.04	94873	8305.71	7753.57	0.89	up
on	11477	2288.69	14378	1258.73	2200.15	0.84	down
here	8669	1728.73	12884	1127.94	912.70	0.62	down
up	17303	3450.49	29443	2577.61	901.19	0.42	down
out	14146	2820.93	24023	2103.11	746.24	0.42	down
now	11796	2352.31	21270	1862.10	404.48	0.34	down
then	17539	3497.55	50391	4411.51	726.89	0.33	up
there	17588	3507.32	31936	2795.86	569.31	0.33	down
very	6445	1285.23	18072	1582.12	211.80	0.30	up
how	8362	1667.51	23108	2023.00	236.09	0.28	up
well	35291	7037.57	68228	5973.06	614.27	0.24	down
right	9960	1986.18	24038	2104.42	23.74	0.08	up
where	6939	1383.74	16410	1436.62	6.89	0.05	Not significant
why	6519	1299.99	15204	1331.04	2.55	0.03	Not significant
back	5931	1182.73	13402	1173.29	0.12	0.01	Not significant

The presence of *really*, *actually* and *probably* in Table 1 led us to explore the productivity of the *-ly* adverb suffix, which forms a key facet of adverb presentation in English language teaching coursebooks (Matijević *et al.*, 2013).

Using the queries **ly_AJ** and **ly_R** for the 1994 and 2014 corpora respectively, we found that *-ly* adverbs account for 35,453 instances (9.15% of adverb instances) and 630 types (60.40% of adverb types) in the Spoken BNC1994DS, and 150,747 instances (13.12%) and 1,131 types (66.69%) in the Spoken BNC2014. This shows that *-ly* adverbs have increased in rate of use as well as number of individual types from 1994 to 2014, and thus deserve further exploration. Among these, we noticed that *literally* has increased in frequency to the greatest extent (log ratio 3.27), rising from rank #37 in the Spoken BNC1994DS to rank #11 in the Spoken BNC2014.

In order to delve deeper into these data, five adverbs were chosen to examine in detail as our case studies, for presentation to the coursebook editors. These adverbs include those that have significantly changed in frequency over time (as selected from Table 2) and *literally*:

1. Case study #1: *like* (increased)
2. Case study #2: *so* (increased)
3. Case study #3: *just* (increased)
4. Case study #4: *well* (decreased)
5. Case study #5: *literally* (most increased *-ly* adverb)

First, it should be noted that each of the case studies presented herein serve to see the journey from corpus research to course book development. Each the case studies would benefit from more attention; however, owing to limitations of space, we have limited our study to the most relevant points. In conducting these case studies, adverbs were analysed according to their syntactic position and semantic function, following Carter and McCarthy's (2006: 456) framework, presented in detail in Section 2.2. Upon initial exploration of the data, we added three extra functions and two additional syntactic positions, resulting in a new, extended version of Carter and McCarthy's (2006) framework. Below, examples of these categorisations from the spoken BNC corpora are presented, alongside the definitions of the extra syntactic and functional categorisations. Note that the origin of each example is indicated in the brackets as follows: (corpus, filename).

Syntax categories

- Adverb phrase modifying a verb phrase
 - Example: *I'm **just** doing the front* (BNC1994, KE6)
- Adverb phrase modifying an adjective phrase
 - Example: *that sounds **so** childish* (BNC2014, SMRV)
- Adverb phrase modifying an adverb phrase
 - Example: *you can spell **so** well* (BNC1994, KB3)
- Adverb phrase modifying a noun phrase
 - Example: *they're **literally** the perfect couple* (BNC2014, SEZ2)
- Adverb phrase modifying a prepositional phrase
 - Example: *I think they could put him sort of **like** in the hall* (BNC1994, KCT)
- Adverb phrase modifying an entire clause (new; cf. Carter and McCarthy's 'disjunct adverbs', 2006: 458)
 - Example: ***literally** I'm looking into someone's eyes* (BNC2014, SUVQ)
- Adverb phrase modifying nothing (new; the adverb is uttered in isolation and constitutes a speaker turn)
 - Example: ***well*** (BNC2014, S23A)

Functions

- Manner
 - Example: *they work very **well** in combination* (BNC2014, SD6X)
- Place
 - Example: no examples found among the case study adverbs
- Time
 - Example: *they've **just** asked her to do more hours* (BNC1994, KB9)
- Duration
 - Example: *how many chicken balls have you had **so far**?*
- Frequency
 - Example: no examples found among the case study adverbs
- Degree

- Example: *that's why it is so annoying* (BNC2014, SMZV)
- Focusing
 - Example: *[name] didn't take anything just his phone* (BNC2014, SRRQ)
- Modal
 - Example: *might as well stock up* (BNC1994, KDA)
- Evaluative
 - Example: *it was like when we did it in class* (BNC2014, SPZA)
- Viewpoint
 - Example: no examples found among the case study adverbs
- Linking
 - Example: *they've got like fields and so hopefully it snows* (BNC2014, S7ZF)
- Discourse marker (new)
 - Function: Discourse maker adverbs are adverbs that behave as discourse markers. They can occur either alone, or in modification of entire turns and create coherence and connections across turns. We distinguish these adverbs from linking adverbs by positing that linking adverbials link clauses and sentences exclusively within a turn and not across turns.
 - Example: *well they wouldn't expect you to would they?* (BNC1994, KBH)
- Reported speech/thought (new)
 - Function: Reported speech/thought adverbs are adverbs that support a reported speech function.
 - Example: *I was like sure why not?*
- Pro-form (new)
 - Function: Pro-form adverbs are adverbs that replace an implied entity or action.
 - Example: *no recollection of having done so*

For each of the case studies, we extracted sample concordance lines from the corpora based upon 95% confidence samples $(\pm 5\%)^2$, as presented in Table 3.

Table 3 Sample size analysed of the adverbs in the Spoken BNC1994DS and the Spoken BNC2014

Case study	Adverb	Spoken BNC1994DS		Spoken BNC2014	
		Total freq.	Sample size analysed	Total freq.	Sample size analysed
#1	like	5574	360	72388	383
#2	so	22516	378	94873	383
#3	just	19546	377	84031	383
#4	well	35291	381	68228	383
#5	literally	94	76	2067	325

4.1.1 Case Study #1: like

² We determined random sample sizes that contained a representative balance of adverbs in the data, using confidence sampling software: <https://www.surveysystem.com/sscalc.htm>, following Israel (1996) and Moinester and Gottfried (2014)

As shown in Table 2, the overall frequency of the adverb *like* is significantly higher in the Spoken BNC2014 when compared to the Spoken BNC1994DS. Each instance in our sample was analysed and categorised according to syntax-function pairings, as presented in Table 4. The “sample frequency” is the observed frequency of each pairing in the sample we analysed. The “extrapolated frequency” is the estimated frequency of each pairing across all instances of the adverb type in the corpus, based on the proportions observed in the sample.

Table 4 Syntax-function pairings of *like* in the Spoken BNC1994DS and the Spoken BNC2014

Syntax	Function	Spoken BNC1994DS				Spoken BNC2014			
		Sample Freq.	%	Extrapolated Freq.	wpm	Sample Freq.	%	Extrapolated Freq.	wpm
clause	discourse marker	229	63.61%	3546	707.05	172	44.91%	32509	2846.06
clause	evaluative	27	7.50%	418	83.37	14	3.66%	2649	231.94
noun phrase	evaluative	26	7.22%	402	80.25	11	2.87%	2078	181.88
noun phrase	discourse marker	22	6.11%	341	67.92	26	6.79%	4915	430.30
verb phrase	discourse marker	15	4.17%	232	46.35	26	6.79%	4915	430.30
adjective phrase	discourse marker	12	3.33%	186	37.01	15	3.92%	2838	248.42
unclear	unclear	7	1.94%	108	21.56	5	1.31%	948	83.02
clause	reported speech/thought	6	1.67%	93	18.56	108	28.20%	20413	1787.11
tagging error	tagging error	6	1.67%	93	18.56	1	0.26%	188	16.48
verb phrase	evaluative	5	1.39%	77	15.45	1	0.26%	188	16.48
adverbial phrase	discourse marker	2	0.56%	31	6.22	0	0.00%	0	0.00
prepositional phrase	discourse marker	2	0.56%	31	6.22	0	0.00%	0	0.00
adjective phrase	evaluative	1	0.27%	16	3.11	4	1.04%	753	65.91
TOTAL		360	100.0%	5575	1111.65	383	100.0%	72395	6337.89

According to Table 4, the dominant syntax-function pairing in both corpora is clause-discourse marker. In this context, *like* is used as to focus on information and to hedge an utterance, as in the following examples.

her sister’s married **like**, she got married when she was eighteen (1994, KD9)

yeah but **like** but I think women should get more (2014, SR82)

In the first example, *like* serves to focus on the information that follows and signals its noteworthiness. The second example uses “yeah but like” to soften the disagreement voiced by speaker.

While the clause-discourse marker pairing is also the most common in the Spoken BNC2014, we see an increase in all syntax-function pairings. However, the increased use of the quotative *be like* in reported speech/thought is arguably the most noteworthy finding. As a clausal modifier for reported speech/thought, *like* accounts for only 1.67% of adverbs in 1994, with only 18.56 examples per million words. In 2014, this rises to 28.2%, with 1787.11 examples per million words. The following examples illustrate the contemporary use of *like*:

I saw so many shooting stars I was **like** ah did you? (2014, SLSS)

I was **like** I know how you feel (2014, S7KD)

Overall, the use of *like* has increased significantly in contemporary spoken British English, and its core functions are discourse marking and quotative.

4.1.2 Case Study #2: *so*

The overall frequency of the adverb *so* is significantly higher in the Spoken BNC2014 when compared to the Spoken BNC1994DS. The syntax-function pairings are presented in Table 5.

Overall, *so* is largely used to perform two clause-modifying functions: discourse marker and linking adverbial. Interestingly, these two syntax-function pairings account for a greater share of *so* adverbs in 2014 (75.98%) than in 1994 (69.32%), which may indicate a reduction in the functional diversity of *so*. For example, its decrease in use as an adjective-modifying adverb of duration is of note. In our coding of the instances of clause-modifying *so*, we noticed that these functions could generally be distinguished according to turn position; turn-initial *so* was coded as discourse marker and turn-medial and turn-final *so* was coded as linking. Examples of discourse marking *so* include:

so, let's make a rough guide (1994, KSV)

so essentially it was free for me (2014, SU82)

Examples of linking *so* include:

They always fly towards the light do flies, **so** it's no trouble (1994, KBW)

he wouldn't do it last night **so** I mean you've gotta do it (2014, S35U)

Table 5 Syntax-function pairings of *so* in the Spoken BNC1994DS and the Spoken BNC2014

Syntax	Function	Spoken BNC1994DS				Spoken BNC2014			
		Sample Freq.	%	Extrapolated freq.	wpm	Sample Freq.	%	Extrapolated Freq.	wpm
clause	discourse marker	162	42.86	9650	1924.43	145	37.86	35919	3144.54
clause	linking	100	26.46	5958	1188.06	146	38.12	36166	3166.14
adjective phrase	degree	49	12.96	2918	581.91	48	12.53	11888	1040.71
noun phrase	degree	21	5.56	1252	249.65	11	2.87	2723	238.37
verb phrase	manner	14	3.7	833	166.13	8	2.09	1983	173.59
adjective phrase	duration	6	1.59	358	71.39	1	0.26	247	21.59
alone	discourse marker	6	1.59	358	71.39	6	1.57	1490	130.40
verb phrase	linking	6	1.59	358	71.39	3	0.78	740	64.78
verb phrase	pro-form	5	1.32	297	59.27	5	1.31	1243	108.80
noun phrase	pro-form	4	1.06	239	47.59	1	0.26	247	21.59
adjective phrase	linking	1	0.26	59	11.67	0	0	0	0.00
N/A (tagging error)	N/A (tagging error)	1	0.26	59	11.67	0	0	0	0.00
noun phrase	linking	1	0.26	59	11.67	0	0	0	0.00
prepositional phrase	degree	1	0.26	59	11.67	0	0	0	0.00
adverb phrase	degree	1	0.26	59	11.67	4	1.04	987	86.38
clause	degree	0	0	0	0.00	1	0.26	247	21.59
verb phrase	degree	0	0	0	0.00	4	1.04	987	86.38
TOTAL		378	100%	22514	4489.59	383	100%	94864	8304.88

Table 5 indicates that discourse marker *so* is almost twice as common as the linking *so* in the Spoken BNC1994DS, but that these syntax-function pairings occur relatively equally in the Spoken BNC2014. Therefore, the key finding from this case study is the significant increase of *so* as well as its increased use as a linking adverb.

4.1.3 Case Study #3: *just*

The adverb *just* is significantly more frequent in the Spoken BNC2014 when compared to the Spoken BNC1994DS. The syntax-function pairings for *just* are presented in Table 6.

Table 6 Syntax-function pairings of *just* in the Spoken BNC1994DS and the Spoken BNC2014

Syntax	Function	Spoken BNC1994DS				Spoken BNC2014			
		Sample Freq.	%	Extrapolated Freq.	wpm	Sample Freq.	%	Extrapolated Freq.	wpm
verb phrase	manner	196	51.99	10162	2026.45	215	56.14	47175	4129.96
noun phrase	focusing	56	14.85	2903	578.82	53	13.84	11630	1018.15
verb phrase	time	40	10.61	2074	413.55	20	5.22	4386	384.01
verb phrase	focusing	18	4.77	932	185.92	10	2.61	2193	192.01
clause	discourse marker	16	4.24	829	165.27	24	6.27	5269	461.26
adjective phrase	degree	12	3.18	622	123.95	21	5.48	4605	403.14
adverb phrase	degree	8	2.12	414	82.63	7	1.83	1538	134.62
N/A (unclear)	N/A (unclear)	7	1.86	364	72.50	2	0.52	437	38.25
adverb phrase	time	6	1.59	311	61.97	0	0	0	0.00
preposition phrase	degree	5	1.33	260	51.84	3	0.78	655	57.38
preposition phrase	focusing	4	1.06	207	41.32	7	1.83	1538	134.62
verb phrase	degree	3	0.8	156	31.18	12	3.13	2630	230.26
clause	manner	2	0.53	104	20.66	0	0	0	0.00
adjective phrase	focusing	1	0.27	53	10.52	0	0	0	0.00
adjective phrase	manner	1	0.27	53	10.52	0	0	0	0.00
clause	linking	1	0.27	53	10.52	8	2.09	1756	153.75
preposition phrase	time	1	0.27	53	10.52	0	0	0	0.00
noun phrase	degree	0	0	0	0.00	1	0.26	218	19.13
TOTAL		377	100%	19548	3898.17	383	100%	84031	7356.55

According to Table 6, the use of *just* to modify the manner of a verb phrase is the most frequent syntax-function pairing. In fact, this has double the frequency in the Spoken BNC2014. Here, *just* is used to modify a wide variety of verbs to indicate immediacy and/or convenience, and often occurs in imperative form.

just take hold of this will you (1994, KD0)

no **just** walk forward a little bit (2014, SP6E)

While this use of *just* is the most frequent syntax-function pairing in both corpora, there are some interesting differences among the lower-frequency modifiers and functions. For example,

there is a notable drop in the use of *just* to refer to time, with twice as many occurrences in the BNC1994DS when compared to the Spoken BNC2014.

another one **just** started (1994, KCL)

what the hell **just** happened here? (2014, S682)

In these instances, *just* indicates that something happened a few moments ago. This appears to be a very useful function of *just*, so the reason for its decrease in use is not clear, and further work is required to investigate whether another adverbial is fulfilling this function in its place.

4.1.4 Case Study #4: *well*

While it remains the fourth most frequent adverb in the Spoken BNC2014, the adverb *well* is significantly less frequent than in the Spoken BNC1994DS. Table 7 presents the syntax-function pairings for *well*.

Table 7 Syntax-function pairings of *well* in the Spoken BNC1994DS and the Spoken BNC2014

Syntax (modifier)	Function	Spoken BNC1994DS				Spoken BNC2014			
		Sample Freq.	%	Extrapolated Freq.	wpm	Sample Freq.	%	Extrapolated Freq.	wpm
clause	discourse	333	87.40%	30844	6150.84	308	80.42%	54869	4803.54
clause	linking	18	4.72%	1666	332.17	47	12.27%	8372	732.89
verb phrase	manner	17	4.46%	1574	313.88	15	3.92%	2675	234.14
alone	discourse	5	1.31%	462	92.19	5	1.31%	894	78.25
verb phrase	modal	5	1.31%	462	92.19	3	0.78%	532	46.59
clause	evaluative	2	0.52%	184	36.60	0	0.00%	0	0.00
adjective phrase	manner	1	0.26%	92	18.30	1	0.26%	177	15.53
adjective phrase	degree	0	0.00%	0	0.00	1	0.26%	177	15.53
verb phrase	degree	0	0.00%	0	0.00	1	0.26%	177	15.53
N/A (tagging error)	N/A (tagging error)	0	0.00%	0	0.00	2	0.52%	355	31.06
TOTAL		381	100%	35284	7036.17	383	100%	68228	5973.06

The adverb *well* is primarily used as a clause-modifying discourse marker in both corpora. Examples include:

Well, I'll have a go but I may not eat all this (1994, KCL)

Definitely **well** Britain's definitely gone down yeah (2014, S9P6)

While this is the main function of *well*, it has significantly decreased over time. However, its use as a clause-modifying linking adverbial has significantly increased. Every instance of the linking function type of *well* is produced by the phrase *as well*:

I'm free you're up for it **as well**? (2014, SJNB)

My mum watches it **as well** (2014, SUVL)

This is an important change in use of *well*; for the development of speaking skills, it seems advisable to draw learners' attention to the use of *as well* to link clauses.

4.1.5 Case Study #5: *literally*

As discussed, the use of *literally* has increased significantly. The syntax-function pairings for *literally* are presented in Table 8.

Table 8 Syntax-function pairings of *literally* in the Spoken BNC1994DS and the Spoken BNC2014

Syntax	Function	Spoken BNC1994DS				Spoken BNC2014			
		Sample Freq.	%	Extrapolated Freq.	wpm	Sample Freq.	%	Extrapolated Freq.	wpm
verb phrase	manner	40	52.62	49	9.87	159	48.92	1011	88.52
clause	manner	13	17.11	16	3.21	80	24.62	509	44.55
noun phrase	focusing	12	15.79	15	2.96	46	14.15	292	25.61
prepositional phrase	focusing	5	6.58	6	1.23	12	3.69	76	6.68
adjective phrase	manner	4	5.26	5	0.99	13	4	83	7.24
verb phrase	focusing	1	1.32	1	0.25	6	1.85	38	3.35
unclear	unclear	1	1.32	1	0.25	5	1.54	32	2.79
adverb phrase	manner	0	0	0	0.00	3	0.92	19	1.66
prepositional phrase	manner	0	0	0	0.00	1	0.31	6	0.56
TOTAL		76	100%	94	18.75	325	100%	2067	180.96

Coinciding with the overall frequency increase is a clear increase in its usage for a range of syntax-function pairings, most notably the use of *literally* as an adverb of manner modifying verb phrases and clauses:

It **literally** drives me up the wall (2014, S2C9)

literally I found myself two days ago I was just like oh what is this? (2014, SUH7)

Upon categorising uses of *literally*, it emerged that not only has *literally* risen in use; it appears to have been undergoing generalisation. In the 1994 data, 83 out of the 94 instances of *literally* (88%) are used to refer to something that (appears likely to have) happened in realis. In the 2014 data, however, only 38% of the examples of *literally* were found to reflect literal usage. *Literally* appears to have become highly metaphorized as it has risen in frequency and seems to be used routinely as a marker of emphasis/intensification in the Spoken BNC2014. For example, it is very unlikely any speaker was referring to actually being driven up a wall by some sort of vehicle.

4.2 Editorial practices: using corpus linguistics to develop English language coursebooks

The five case studies indicate some interesting shifts in the use of frequent adverbs in casual British English conversation between the 1990s and 2010s. The next stage of our study was to share these findings with four ELT coursebook editors at Cambridge University Press. Following a qualitative interview where participants responded to eight identical questions, presented in Section 3.2, we noted their responses to help us document their understanding of corpus linguistics as a field of study, as presented in Section 4.2.1, and their projected use of corpus research findings in their, at the time, ongoing projects, as presented in Section 4.2.2. Subsequently, we then explore examples of the corpus-informed materials that the editors produced and which have made use of our corpus research, in Section 4.2.3.

4.2.1 Editorial knowledge of corpus linguistics

The initial stage of the interviews served to clarify the editors' perspectives on the field of corpus linguistics. We found that all of the editors had general awareness of corpus linguistics. They saw corpus linguistics as a means to documenting how people use language authentically, and understood corpora to be heavily contextualised language descriptions that can tell us how people communicate. This, they each argued, is useful, but should not be used prescriptively. One editor identified that they would use corpus data to critically interrogate their assumptions and intuitions. Another said that corpus linguistics is useful for describing language and to see how language has changed. One editor had greater awareness of the range of potential metadata available in corpora used to categorise language according to different variables, including but not limited to frequency. That being said, we observed a varied degree of understanding surrounding the types of metadata that corpora typically offer. For example, one editor criticised corpora for not allowing users to take into account variables like speaker age. This editor was unaware that many relevant spoken corpora, such as the Spoken BNC2014 (Love *et al.*, 2017) and the Trinity Lancaster Corpus (Gablasova *et al.*, 2019), do allow users to investigate variables such as age.

While the editors generally had some knowledge of corpus linguistics, only two of the four editors interviewed had used corpora themselves. One editor reported having used corpora to quickly check the meaning of words and spelling variation across English varieties, by searching concordance lines. Broadly, editors referred to the use of corpora for mapping change in language use, e.g. one editor used a corpus to see if *waiter* or *server* was more common in American English, and whether *waitress* was also used. Overall, they each found corpora to be more useful for lower-level materials, as these materials tend to make use of, what they perceive to be, the most frequent language and linguistic structures. That being said, not all editors had used corpora. One editor reported that they did not use corpora directly, but requested corpus studies of expert speaker and learner language from other researchers, which they would use to inform the likes of reading texts in coursebooks. Generally, each editor recognised the need to use corpus data in conjunction with other criteria, whereby frequency was balanced with usefulness, relevance, and topic.

When considering whether corpus linguistics has improved editorial choices, the participants were unanimous in recognising the value of corpora in the development of coursebooks. Whether through the review of manuscripts by linguists, or the creation of reports on language use, corpora helped the editors to remove unnecessary and inauthentic representations of language. A key area in which they each editor reported noticing an improvement, owing, in their view, to corpus linguistics, is the development of authentic speaking resources with effective language models. They also reported corpus linguistics as offering effective resources for staging language items across levels. One editor thought the use of corpora for coursebook development was important for two reasons. They saw it as ‘something that really sets apart English language teaching materials from coursebooks in other languages’ and as a resource that helps them dismiss the concern that language taught in coursebooks is just based on one author’s view.

4.2.2 Editorial response to corpus insights on change in adverb use

Having established the editors’ knowledge of the application of corpora and corpus linguistics to coursebook development, we presented them with the results of our case studies. We asked the editors what they would do with corpus insights presented in our case studies. All editors reported that they were surprised by our findings. They reported finding the changes in adverbs interesting and that it opened their perception of how language can change. They were surprised about the significant increases and decreases in frequency, as well as the changes in the literal and metaphorical use of *literally*, in particular. In general, they were not surprised by the syntax-function pairings, as much as what the significant changes in frequency told them about possible changes in the English language.

Reflecting on the application of these findings, two editors reported their value for supporting the writing of dialogues and scripts for video and listening recordings. This, they argued, helps them to respond to market needs by addressing issues of authenticity which can undermine spoken language representation in coursebooks (Timmis, 2015). The remaining editors thought that the different uses of adverbs *so* and *well* could be useful in signalling features of the register of casual conversation to learners, and *just* could be included in a text, requiring students to interpret its different meanings. However, one editor cautioned the overuse of these linguistic features, arguing that it may be more valuable to raise learners’ awareness of these features rather than developing tasks that serve to teach learners to use them.

With a focus on the development of conversation skills and spoken language, two editors identified that these changes in adverb use could be valuable for the development of coursebook materials that focus on teaching speaking skills and preparation for speaking tests. One claimed that including contemporary uses of adverbs ‘can really help students prepare for what they’re most likely to hear’. This editor followed this by saying that such adverb use can help learners feel like they are ‘hacking’ speaking by learning the most relevant phrases. However, 2 editors queried the extent to which variety-specific corpora (i.e. the British National Corpora containing only British English) can be used, as their work is increasingly concerned with international and lingua franca varieties of English. This is largely owing to their recognition of English as an international language and their reported efforts to represent

a range of language speakers in their products and produce more global coursebooks. That being said, they still saw the inclusion of these words, based on corpus research, to be a better recourse than intuitively choosing language to be included. Furthermore, while they do value the corpus data, no editor thought that detailed frequency information is really of interest to teachers and students. Rather, they identified that linking language to demographic information like age, context, and geographical location is more interesting for teachers and students. Generally, each editor reported that the corpus research adds validity to their coursebooks and makes their content more authentic; however, again each editor thought that indirect applications of corpora are more effective when learners can work through example sentences from corpora to process and notice language use, without necessarily knowing what corpora are.

4.2.3 Corpus-informed coursebook materials

Overall, the clear message from the interview data is that the editors we interviewed value and engage with corpus linguistics research to contribute to the development of coursebooks. One year after these interviews were conducted, we asked the editors to share finalised coursebook materials that had made use of our adverbs case studies. In this section, we briefly review these materials.

In terms of the adverb *like*, level 3 of *Talent* (Kilbey *et al.*, 2018), contains a focus on changes in its use. In a supplementary video for the course, the following is reported:

So, that's all clear. But something very interesting has happened with the word 'like' over the past ten years. Corpus data shows us that the word like is used much more frequently today than it was 15 years ago, but in a very different way.

The video reports that *like* is used as a filler, reflecting the increased use of *like* as a discourse marker. The video also offers more demographic information, stating that since the 1990s, the use of *like* by people aged 24 and under has significantly increased.

For *so*, the significant increase in its use is presented in level 2 of *Talent* (Cowan *et al.*, 2018). Therein, they focus on the degree adverbial *so not*, reporting in their accompanying video:

This use of "so not" is relatively new. If we examine corpus data from the 1990s with data today we can see a clear increase in usage.

The video contextualises the corpus data according to the age of users of *so not*, stating:

Once again it is young people who are leading this change. If we look at corpus data per age group we can see that the construction be+ "so not" is used most frequently by people under 30 years old.

Another example of corpus data, drawn from level 2 of *Talent* (Cowan *et al.*, 2018), centres on *literally*. Therein, the metaphorical use of *literally* is presented with the accompanying statement:

Using the word *literally* in this way is a relatively new phenomenon and explains in part the large increase in use of this word. The chart shows how frequently the word *literally* was used 20 years ago compared with more recent data.

Again, the coursebook presents this change in language use as one that has happened among younger people:

Indeed the use of *literally* has *literally* become a battleground with many older people criticizing what they think is the incorrect use of the word.

Other coursebooks, such as *Evolve Level 6* (Goldstein and Jones, 2019), have been published since we conducted this corpus research; the *Evolve* website states that ‘experts in pedagogy and language research have contributed to the ideas underpinning *Evolve*, and many features of the course have been informed by research drawn from the Cambridge International Corpus’ (Cambridge English, 2020). Therein, the metaphorical use of *literally* is presented in level 6 in a “tip box”, as seen in Figure 1.

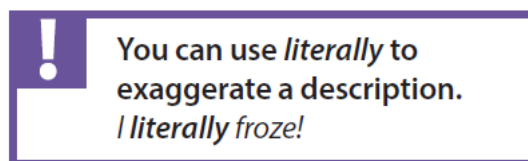


Figure 1 Tip box in *Evolve Student Book 6* showing the use of *literally*

Interestingly, this example of *literally* in Figure 1, was adapted from an example identified in the Spoken BNC2014. However, there is a noteworthy difference where Figure 1 reflects a verb-modifying adverb while the following example, from the Spoken BNC2014, is a less frequent adjective-modifying adverb:

I was **literally** frozen (2014, S3C6)

Overall, while the interviews with editors demonstrate their self-reported engagement with corpus research for coursebook development, this brief review of the materials that they produced is clear evidence that the corpus research presented herein has been used by editors to support writers in the development of corpus-informed English language coursebooks.

5. Discussion: Adverbs on the move and Corpus Applications to Materials Development

Our study of adverbs adds to current knowledge on adverb syntax and function in contemporary British English in a number of ways. Our analysis of adverbs builds on Fuchs’ (2017) and

Aijmer's (2018) work and shows that use of adverbs is significantly higher in the Spoken BNC2014. Furthermore, while adverbs have increased in usage, most of the adverb types in the top two thirds for both corpora are shared. This is expected; it is not likely that many adverb types will have been replaced in the lexicon of spoken British English in a period of only twenty years. However, both the order of frequency and the functional frequencies within each adverb have changed substantially.

Focusing on our case studies, the increased use of discourse marking and quotative *like* indicates an important development in contemporary British English. Its grammaticalisation corresponds to Suzuki's (2018) work on adverbial change and, following Waters (2013), the syntactic-semantic pairing of *like* can offer a valuable form and function description for language learners. Notably, our findings surrounding the quotative *like* are corroborated in Beeching (2016), who also finds the quotative *like* to be a feature of younger speakers of British English. Furthermore, the increases in the use of *so* echoes language change documented by Lindquist (2007). Its increase also reflects a syntactic shift, like Gonzalez-Diaz (2008) reports, where in performing its linking function, *so* occupies a turn-medial and turn-final position. The increased use of *so* as a discourse and linking adverb, and its decreased use in performing other syntactic-functional pairings, represents a potential future direction for *so* in contemporary British English.

The frequency of *just* has increased significantly over time. Overall, *just* largely performs similar functions in similar syntactic positions in both of the corpora we examined. However, one key change is the reduced use of *just* as a time adverb. Such a change in adverb function corroborates with Werner (2013), who documented change in temporal adverbs. Looking forward, it would be interesting to consider what (if anything) is performing this temporal function in contemporary British English in the place of *just*. For *well*, while there is an overall reduction in its use, its role as a linking adverb (as part of the adverbial construction *as well*) emerges as an example of grammaticalisation of adverbs (cf. Aijmer, 2018). Finally, the significant increase in the adverb *literally* is likely owing to its semantic development as a metaphorical adverb. The increased use of metaphorical *literally* marks an important change in adverb use, and, like Kennedy (2003), we argue that such a use of *literally* warrants discussion and presence in the English language teaching classroom. However, transparency will be needed to unpack the range of perceptions held for the metaphorical use of *literally*. Generally, Kostadinova (2018) finds such uses of *literally* to be most common among younger speakers of American English. This appears to be a shared finding in British contexts by Ebner (2017) who also finds that the metaphorical *literally* is seen as informal and, in many cases, unacceptable, and therefore quite socially marked. Overall, the findings of our case studies correspond broadly to those of Fuchs (2017) and Aijmer (2018), as we present clear evidence that at least some English adverbs have changed significantly in spoken British English over a relatively short period of time. Our investigation of adverbs herein is necessarily brief, owing to the multifaceted approach and aim of this project. Future studies would do well to also consider adverbial change and investigate the range of syntactic, functional, and demographic changes in greater depth.

Recognising the need for knowledge of up-to-date language use to inform language teaching materials development (Mishan, 2005), the results of our case studies mark changes in adverbial use which are relevant to language coursebooks. While, in coursebooks, Campillo (2008) reports that *just* is used as a downtoner to weaken requests, our study indicates that, in contemporary British English, adverb *just* is most often used to indicate immediacy and/or convenience. Therefore, it will be important for coursebooks to include this highly frequent use in future editions. Moreover, the use of quotative *like* as reported speech, *so* as a clause-modifying discourse marker, metaphorical *literally* as a manner adverb, and *as well* as a linking adverbial are valuable additions to existing foci on adverbs of degree, evaluation, and modality (Criado and Sánchez, 2009; Gabrielatos, 2013; Maley and Prowse, 2013; Phoocharoensil, 2017). Moreover, their syntactic-functional behaviours in spoken language offer further valuable insights into adverbs that can add to current descriptions presented in contemporary British English grammars (cf. Carter and McCarthy, 2006). Our research adds to this wider canon and delivers evidence to support a response to Koprowski's (2005) and Phoocharoensil's (2017) calls for the inclusion of a greater variety of adverbs in language coursebooks; future work should extend this research by examining a wider range of adverbs.

The interviews with coursebook editors demonstrated that the members of editorial teams largely have awareness of corpus linguistics; have varying degrees of engagement with corpora; and see corpora as having a positive impact on the development of language coursebooks. This contrasts with Burton (2012), who questions publisher engagement with corpora. Of course, it must be noted that the language education industry is ever evolving and, given that Burton's study took place in 2012, it is possible that editorial practices have changed greatly since then. Moreover, the editors being studied work for a publisher known to engage with the field of corpus linguistics. While the documented use of corpora by authors has been confined largely to the development of grammatical and lexical content (Burton, 2012), the editors in our study reported the use of spoken language research to develop dialogues and scripts for video and listening recordings, which reflect McCarten's (2012) application of corpora to coursebook presentation. In Talent (Kilbey *et al.*, 2018), there is evidence of the use of *like* as a clause-modifying discourse marker, the use of *so not* as an adverbial, and the use of metaphorical *literally* in video scripts. *Literally* is also presented in *Evolve Level 6* (Goldstein and Jones, 2019); however, it is presented in a tip box to raise learners' awareness of its use, rather than teach it explicitly, which reflects an editorial decision to avoid its overuse and create a coursebook that responds to learner and market needs and expectations. Overall, the uses of corpus linguistics by the editors in this study reflects a corpus-informed approach (McCarthy, 2008), where editors use corpus research judiciously, recognising an incapacity to opt for corpus-based coursebooks owing to the lack of availability of corpora representing an international English. The editors' preoccupation with the global nature of the coursebook is reflected in Mishan (2015), who identifies that, owing to market needs, global perspectives are gaining increased currency in the English language teaching industry.

The tailoring of the materials to learner and market expectations is an established practice of publishers, documented, for example, in Gray (2010). While, in the case of *literally*, this tailoring process limits its presence in the materials to glossary-style information, editorial use of corpus linguistics can also attempt to engage teachers and learners. The use of corpus data in the materials served to solve problems of authenticity, such as those documented by Timmis (2015). The editors acknowledge the perception of dialogue in coursebooks across ELT as stale and inauthentic, issues discussed in Mishan (2005; 2015). Their application of these findings to dialogues and scripts demonstrates their attempt to address this issue and respond to their markets, reflecting an ongoing development of teaching materials in the field (Gilmore, 2004; Timmis, 2016). Moreover, the wider demographic information presented about age variation moves to create a personalised presentation of language (Timmis, 2012). Moreover, despite some editors downplaying the relevance of frequency information, it did feature in the coursebook materials, again reflecting applications of corpora, identified in McCarten (2012).

Based on this discussion, we can return to address the questions raised earlier in this paper:

- How do publishers manage the use of corpora in their products?
- What is the role of the editorial process in developing corpus-informed educational materials?

The dearth of discussion and description of publisher practices in the literature represents a deficiency in the field. In reviewing the specific practices of editors, our study has demonstrated not only their self-reported practices but evidence of the operationalisation of these practices in published coursebooks. As this study is based on only one publisher, and one known to engage with corpus linguistics research, it cannot be generalised to reflect wider publishing practices in the field. Nonetheless, it offers one important contribution regarding publisher activity: it illuminates the processes by which publishers and editors can be active agents in managing the use of corpus linguistics to inform the development of language coursebooks. Of course, we must recognise our role in this process, as we conducted and delivered corpus research to the editors which they then used to inform their work. That being said, editors reported using corpora themselves for other purposes and working with linguists and researchers to develop reports on language that they needed to inform the coursebooks they edited, beyond this limited focus on adverbs. Therefore, while this study spotlights the movement from corpus to coursebooks of specific adverbs in order to illustrate the corpus application process, it would be worth expanding this study to a review of how corpora are used throughout coursebook development. Moreover, while our study demonstrates some applications of corpora by editors, it also presents further challenges publishers face when using corpora in global contexts, hereto not identified in the literature.

6. Conclusion

This paper offers several contributions to the fields of education and corpus linguistics. The findings of this study offer empirical evidence of change in adverb use in contemporary spoken British English. Moreover, this study offers a much-needed insight into publisher practices and

engagement with language corpora for materials development, as well as research on indirect applications of corpus linguistics for English language coursebook development.

Studying language change offered useful perspectives on a small set of adverbs in contemporary spoken British English and the significant change in adverb use over a twenty year period should not go unnoticed. In reporting these perspectives to editors at a large English language coursebook publisher, we were able to illuminate the processes by which research in corpus linguistics can be of value to the language education industry. By focusing on one publisher, it was possible to track, in detail, the process by which corpus-informed coursebooks were developed using specific corpus insights. Moreover, while the interviews and review of selected materials allow us to map the use of corpus linguistic research, the interviews also offer broader perspectives on this editorial staff's use of corpus linguistics more generally. This process is largely unrepresented in the literature and, in most studies of language coursebooks, the role of the publisher is backgrounded. A disadvantage of focusing on one publisher is that it is impossible to comment generally about publisher practices. However, given the lack of representation of publisher roles in the development of corpus-informed coursebooks in the literature, our study makes an important contribution to the field of indirect applications of corpus linguistics to language teaching nonetheless. We hope that future work may consider the practices of other ELT publishers.

Questions on the utility of corpora for large-scale materials development have emerged in this study. Editors acknowledge the use of corpora for informing the language in coursebooks. However, the competing contextual factors and market needs that also shape such materials can make it challenging for them to use such data. For example, the questions of variety and age emerge, with editorial foci increasingly centred on lingua franca language models and age-specific content. Therefore, important questions emerge regarding the composition of corpora for informing future educational materials. While representativeness in corpus linguistics is a key underpinning concept, its reflections of communities as discourse, practice, or speech communities, for example, may struggle to reflect the linguistic landscape needed in future educational materials. Returning to interrogate key concepts like representativeness and reconceptualising the parameters of the communities of language users may be one means to create corpora that can respond to learner, teacher, and publisher expectations of language in the future.

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