From corpora to confidence

Michael Rundell and **Sylviane Granger** describe a corpus-driven research project.

Dictionary-making was revolutionised by the arrival of large language corpora in the 1980s. The use of corpus data transformed not only the process but also the product, and dictionaries designed for learners of English have improved enormously. They perform their traditional functions – explaining meanings, giving examples of usage and describing syntactic behaviour – more effectively than was previously possible. But additionally, the use of corpora has made possible more detailed and systematic coverage of phenomena such as pragmatics, register and collocation. Although lexicographers were among the earliest users of these resources, the use of corpora is increasingly common in other linguistic fields, both theoretical and applied.

The native-speaker corpus

Among the many insights arising from corpus linguistics, two are worth mentioning here. First, a recognition of the limitations of our own mental lexicons. Our intuitions as fluent speakers are a valuable resource when we are analysing language data, but they are not always a reliable guide to how language is actually used, and introspection alone can never underpin a satisfactory account of word meaning and word behaviour. Secondly, the study of corpus data reveals the 'conventional' and repetitive nature of most linguistic behaviour, and demonstrates the fundamental importance of context and co-text in the way we use and understand words. An 'atomistic' conception of words, as independent bearers of meaning, has given way to what John Sinclair calls 'the idiom principle' – a model of language which recognises that the linguistic choices we make are far from random and that a high proportion of our written and spoken output consists of semi-preconstructed chunks of language. This model of language has been very influential, not only in the design and content of learners' dictionaries, but also in the theoretical and practical aspects of language learning and language teaching. (Michael Lewis's 'lexical approach', for example, is underpinned by what corpus linguistics has taught us about the workings of language.)

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The learner corpus

In a parallel development, we have seen the creation and exploitation of a different type of corpus: the *learner corpus*. While a 'standard' corpus, like the British National Corpus or Bank of English, consists of texts written (or spoken) by native speakers, a learner corpus (LC) draws on texts produced by

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foreign language learners. And just as the reliability of a native-speaker corpus depends to some extent on the range of text types it includes, so a well-designed LC will source texts from learners at each main level of proficiency and from a range of mother-tongue backgrounds.

Both insights mentioned earlier apply equally to the study of learner data. As with native-speaker corpora, the limitations of intuition quickly become apparent: experienced teachers may have a good idea of the words or structures that their students tend to stumble over, but this can never provide more than a partial account of the problems learners face at different stages in their progress towards proficiency. At the same time, evidence from native-speaker text for the conventional character of most language events is mirrored in LC data, where many recurrent phenomena can be observed.

A thriving research community has grown up around LCs, with significant outcomes in areas such as SLA research, testing, curriculum design and teaching materials. Dictionary publishers have used LC data too, as a basis for 'common error' notes, like this one from the *Cambridge Advanced Learner's Dictionary*:

Common Learner Error

information

Remember you cannot make **information** plural. Do not say 'informations'.

Could you send me some information about your courses?

We've been able to find out several pieces of information.

For more information please contact our office.

~~*For more informations please contact our office.*~~

This is useful enough as far as it goes, but the huge potential of LC data for improving learners' dictionaries is still largely unrealised. A key objective of dictionaries of this type is to help language learners in their *encoding* activities, including of course the many learners who are required to write discursive text in academic or professional environments. And while tertiary-level texts in a native-speaker corpus provide evidence for the characteristics and conventions of this genre, it is LC data that shows exactly which aspects of the writing task learners have difficulty with.

A joint research project

The idea of applying insights from learner corpora to the creation of writing materials led to a two-year collaborative project involving a dictionary publisher (Macmillan) and a research institution specialising in the development and exploitation of learner corpora (the Centre for English Corpus Linguistics, Université catholique de Louvain).

The approach we used was to compare native and learner texts of the same general type in order to identify systematic differences between the two sources. It is important to stress that we were not simply looking for learner 'errors', but rather for evidence of significant disparities in the strategies each group used when performing particular functions in text.

Resources

The resources used were a corpus of native-speakers' academic writing (including 15 million words from the BNC and a smaller home-made corpus of academic texts) and an extended version of the International Corpus of Learner English (ICLE), containing about three million words of learners' argumentative essays. (Note that ICLE contains data from learners of 16 different mother-tongue backgrounds, including Romance, Germanic and Slavic languages, as well as Chinese and Japanese.)

Goals

An important principle in analysing corpus data is to look for language events which are both *frequent* and *well-dispersed*, occurring in many different source texts. This is what dictionary writers are interested in describing, what teachers want to teach, and what students need to learn. The principle applies equally to the analysis of LC data: what we focus on is behaviour that is both recurrent and characteristic of learners from several mother-tongue backgrounds. The ultimate goal of our project was to develop corpus-driven materials for inclusion in a learners' dictionary that would help learners to negotiate known areas of difficulty in their writing.

Findings

Our analysis throws up two broad areas of difficulty:

- lexical and grammatical accuracy
- fluency in writing

Looking first at *accuracy*, the data shows up problems in areas such as lexical choice, register, countability, the use of articles and quantifiers, and syntactic patterning (or complementation). The table below shows some typical examples of learners' output:

sentence from ICLE	**problem area**
Although **the slavery** was abolished in the 19th century, black people still face racism in all parts of the world. We are a civilised society, it is true, but every year there is an ever increasing **number of violence** around us.	articles, quantifiers
You need to balance **the evidences** from both sides.	countability
Some researchers **suggest to reformulate** the hypothesis in more general terms. Television brings many benefits, but it can also have a bad **influence to** people.	complementation
During the last few decades, there has been ***lots of discussion*** about the possibility of machine translation.	register
University **learns** you how to think and judge with your own mind.	lexical choice

Equally interesting is the issue of learners' *fluency* as writers. Writing with confidence calls for a wide repertoire of words and phrases that enable the writer to express concepts and perform common functions in natural and stylistically appropriate ways. This is quite a challenge, and our analysis indicates that many learners are operating with very limited resources. Consequently, they tend to rely on a small range of devices which they use repeatedly (and sometimes misuse). Corpus-querying software makes it easy to compare wordlists from comparable corpora and identify cases where there are significant differences in frequency – where, for example, learners repeatedly use a word or phrase which is far less common in native-speaker text. In most cases, it is not a question of finding 'errors'; the usage will often make perfect sense and conform to grammatical rules. But when we find, for example, that learners writing academic texts use the discourse-marker *besides* about 15 times more frequently than native speakers writing in the same mode, there is at least an issue to be discussed.

Any writer creating an argumentative text will, at some point, need to *express an opinion* about a contentious issue. LC data reveals a spectrum of uses among learners performing this function, ranging from the straightforwardly unacceptable to the merely inelegant. So we find plenty of evidence for expressions like this:

*_**According** to me, the prison system is not outdated._

But there are also less clear-cut cases, such as this:

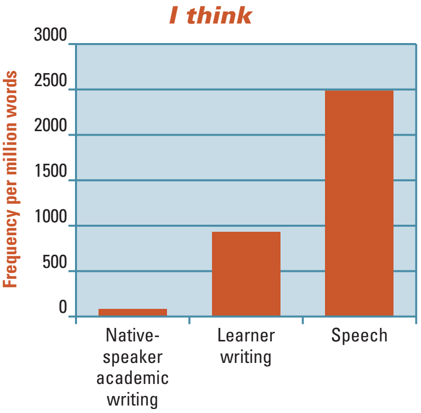
However, **as far as I am concerned**, there are many reasons why gun ownership should be made illegal.

Corpus data indicates that *as far as I am concerned* and *from my point of view* are both popular with learner writers, yet these expressions are barely used at all by native speakers (for whom *in my opinion* and *in my view* are far more common devices). Another gambit popular among learners is to begin a statement with *I think*:

Good corpus data enables us to pinpoint those learner errors which are especially widespread and recurrent

**I think** that a sense of humour is a very important quality.

The graph here shows the relative frequency of *I think* in native-speaker academic writing, learners' writing, and native-speaker spoken discourse:



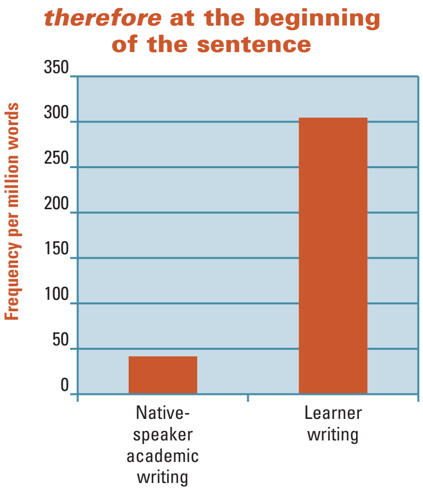
Though *I think* is characteristic mainly of spoken language, it is clearly a popular device among learners for introducing an opinion. This could not be said to be categorically 'wrong', but learners' preference for this usage is one of many instances of *overuse* that our analysis has uncovered. These statistical disparities call for an explanation.

Discussion

In some cases, overuse or misuse reflect an incomplete understanding of the meaning, register features or grammatical behaviour of a word or phrase. Consider this, for example:

*_The Ministry of Education **claimed** that children should get more free time._

Here the writer has over-generalised, using *claim* (which implies that a statement is unproven and possibly wrong) instead of a more neutral reporting verb like *state* or *argue*. *Colligation* is another problematic area. As defined by Michael Hoey, this notion includes *'the place in a sequence that a word or word sequence prefers (or avoids)'*, and there are many cases in learner writing where an expression that carries the 'right' meaning is used in a non-preferred position in the sentence. A good example is *therefore*, which – as the graph here shows – is rarely sentence-initial in native-speaker text, but frequently used in this way by learners:



Register mismatches account for learners' overuse of discourse markers like *besides* and *by the way*, or of expressions of modality like *maybe*.

But the primary issue is *lexical poverty*: many learners are operating with a very limited repertoire, so their frequent resort to a small stock of common, general words and phrases is hardly surprising. The data shows, for example, that learners use *important* far more often than native writers do, while near-synonyms like *key*, *critical* and *crucial* are relatively infrequent in learner writing. This can often lead to vagueness, as for example when learners use *thing* (as they frequently do) when introducing a *topic*, *issue*, *point* or *question* that they want to discuss.

These are just a few of the things (or issues, or questions) that were uncovered through a comparison of native and learner performance in similar types of writing task.

Solutions

The next part of the project focused on devising materials (for inclusion in the *Macmillan English Dictionary*) to help students achieve higher levels of accuracy and fluency in their writing. **Accuracy** entails the avoidance of grammatical, morphological, orthographic and other forms of error. It could be argued that problems of this type are so diverse that any materials aimed at pre-empting them could never be more than a drop in the ocean. However, good corpus data enables us to pinpoint those learner errors which are especially widespread and recurrent, and we believe there is value in systematically targeting these problem areas. For a range of individual errors

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(covering nine categories, including complementation, countability and register), we have used a model in which boxes appear at over 100 individual dictionary entries, with the following components:

- authentic examples of the error in text written by learners;
- a clear explanation of the source of the problem;
- recommended alternatives.

Here is an example:

Get it right: discuss

The verb **discuss** is never used with the preposition **about**. It is simply followed by a direct object:

✗ *I would like to* ~~***discuss about the advantages***~~ *and disadvantages of students using credit cards.*

✓ *I would like to* ***discuss the advantages*** *and disadvantages of students using credit cards.*

✗ *Jury members are not allowed to* ~~***discuss about the trial***~~.

✓ *Jury members are not allowed to* ***discuss the trial***.

Instead of **discuss something**, you can also say:

- have a discussion about something
- talk about something

We had a discussion about the new plan.
We talked about the new plan.

Boxes such as these can be complemented, in an electronic version, by exercises specially designed to consolidate learners' newly-acquired knowledge.

Problems around **fluency** call for a different approach. Here we have focused on a number of functions that are crucial in academic and professional writing. Writers regularly need to do things such as introducing topics, drawing conclusions, paraphrasing, contrasting and quoting from sources, but our evidence shows that learners' fluency in these areas is constrained by limited linguistic resources. Our strategy, therefore, is to provide a rich description of the words and phrases that are typically used when performing EAP functions of this type.

A typical section would deal with the function of 'expressing personal opinions'. It is important to list and explain the various strategies that can be used when expressing an opinion, with the aim of enriching learners' repertoire and giving them a wider range of options. For the key words and phrases, information should be provided about:

- their meanings and the nuances they carry;
- their frequency;
- their register;
- their colligational preferences (eg most usual position in the sentence);
- their collocational features;
- any common pitfalls in their use, as revealed by the data.

Frequency graphs like the ones on page 17 show up any major disparities between native and learner writers in the use of certain words or phrases. The aim here is to discourage 'overuse' and to encourage learners to try new ways of expressing familiar concepts. Once they have selected a particular strategy, learners will often need information about its preferred lexical environment, which can be supplied in collocation lists like this:

Collocation

- Verbs frequently used when **view** is the object:

accept, adopt, confirm, echo, express, hold, reflect, reject, share, support, take

The recommendations concerning the management of young suicide attempters ***echoed the views*** *of the Royal College of Psychiatrists.*

Oller, Baca and Vigil (1977) ***support the view that*** *a positive attitude towards the target language group is a predictor of language learning.*

A further point is that, when providing alternatives to an overused device, one should not merely offer a set of near-synonyms. In some cases, a completely different structure may be more effective. When expressing an opinion, for example, it will sometimes be better simply to omit markers like *in my opinion*, so that the writer's view emerges implicitly. In other cases, a better option may be an *impersonal* structure such as *it is worth V-ing*, where the verb slot can be filled by words like *noting*, *pointing out*, *emphasising* or *remembering*. A final option for expressing the writer's opinion could be the use of 'stance' adverbs such as *interestingly*, *surprisingly* or *arguably*.

For every strategy suggested, a dictionary can aim to provide enough information (whether syntactic, semantic, collocational or whatever) to enable learners to make an appropriate selection and then deploy their preferred option with confidence.

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It could be argued that native-speaker data (as found in our 'reference' corpus) is not necessarily an appropriate benchmark by which to judge learners' output. And for advocates of English as a Lingua Franca, the notion that learners should aspire to native-speaker models will be problematic. But on the evidence of our corpus analysis, it is clear that many learners are held back by the poverty of their lexical resources. Too often, this manifests itself in text that is depleted, unnatural, repetitive and much less effective or professional-looking than it could be. A corpus-driven approach like the one described here is a good first step in producing materials which are not intended to be 'remedial' but rather to give ambitious learners the information that will help them to achieve greater accuracy and fluency, and, therefore, greater confidence in their writing.

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