

Language @ education: a personal welcome and some research issues

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David Crystal

Abstract

I explore the many ways in which linguistics in general, and applied linguistics in particular, can inform the study of language in educational settings. I pay special attention to its role in the training of teachers; the grading of linguistic information in educational settings; the incorporation of guidance about teaching into introductory accounts; linguist/teacher collaboration; continuing professional development in businesses and other organizations; advisory roles in relation to the development of language policy; and the provision of resources to meet the interests and curiosity about language found among the general public. As an illustration of collaboration, I describe a project developed for the teaching of reading to avoid line-breaks that would interfere with easy reading or prompt miscues.

I'm delighted to have this opportunity to offer a warm word of welcome to the new journal, and to reflect on the importance of its subject. For me, language - and thus linguistics - is at the heart of education, not only because education has to use language to fulfil its purpose but also because people have a deep-rooted curiosity about language that continues throughout life, fuelled especially by the ever-present impact of language change and the prominence given to linguistic issues in the media. It is not surprising, then, to find the relationship being explored and exploited in diverse ways, and the contributions made by linguists and educationalists taking a variety of forms. The influence is bidirectional: educational theory and practice can inform the way linguistics is taught or presented, whether in formal education or after; and linguistics can inform the way language is studied - again, both in formal settings and beyond. In this paper, I discuss only the latter, based on my experience of writing or speaking to pupils, students, teachers, other language professionals, and the general public. Publication details of all named items below are to be found in the References.

What kinds of contribution can practitioners of linguistics make? One of the most established ways is in teacher training, illustrated by the many postgraduate or in-service courses in linguistics and applied linguistics aimed at teachers and policy-makers in both first and second language situations, with Teaching English as a Foreign Language as one of the leading enterprises worldwide. The motivation is obvious: if one is to teach a language, then one must not only know the language (in the sense of being able to listen, speak, read, and write) but also know *about* it - which means how to talk about it clearly and precisely. The requirement involves the description, analysis, and explanation of all aspects of language structure (pronunciation, orthography, grammar, vocabulary, discourse) and use (variation and change in temporal, regional, social, occupational, and personal settings). It also involves a consideration of the character and developmental level of those for whom the information is intended, and an understanding of the methods through which this can be best conveyed - at which point linguistics morphs into applied linguistics. The same factors apply when the notion of teaching is broadened to include other professionals where language plays a significant role, such as speech therapists/pathologists, audiologists, and clinical psychologists.

A variety of familiar means is used to help achieve these ends. In addition to the conventional array of lectures, seminars, and tutorials, and their online equivalents, we routinely recognize the writing of introductory accounts of language or of an aspect of language, textbooks, teaching materials, and a wide range of information books or articles written with the needs of teachers primarily in mind. The task is not straightforward because, when any subject is being presented to non-specialists, the writer needs to simplify - which means telling only part of a linguistic story. Applied linguists are always having to deal with half truths. In the case of language, special care needs to be taken over the choice of terminology in such domains as grammar and phonetics, especially given the variation that arises due to the co-existence of incompatible linguistic theories and descriptions. 'How to choose' from the array of competing terms and descriptions is one of the most common questions that arises in language pedagogy.

The biggest problem, to my mind, has been the lack of a linguistic element in teacher training over the years, so that many teachers have found themselves in a situation of having to talk about language (often, in response to a newly introduced government requirement) without having acquired the necessary background. For example, the subject of grammar was conspicuous by its absence from training courses in the UK during the second half of the 20th century, so that when a modicum of grammatical analysis became a requirement again, in the early 2000s, few were in a position to cope with it confidently. Much of my own writing, during those years, was an attempt to fill the gap - books such as *Rediscover Grammar* (and its classroom companion, *Discover Grammar*) and *Making Sense of Grammar* - and there is now a considerable literature available, including several online projects, such as *Englicious* (Aarts, 2012). Other aspects of language have not been so fully explored - the structure of vocabulary, for instance - so there will be plenty of scope for innovative papers in the pages of this journal.

An associated problem is the lack of grading of linguistic information in educational settings. This is where research initiatives are needed. Which topics and terms are suitable for introduction to a 6-year-old, a 10-year-old, and so on? A repeated complaint from teachers at any scholastic level, who find themselves having to teach a linguistic topic, such as grammar, is that they are unsure how much (if any) of the subject their students have already been taught; and in the absence of clear data, they feel they have to 'teach everything'. There is a clear need for a developmental syllabus, of the kind that is familiar in (for example) science, where a selection is made from the total subject-matter of a domain, with certain notions being considered basic and others derived, relating the selection to cognitive development as well as to the logic of the subject. Grading has been well recognized - albeit impressionistically introduced - in relation to vocabulary and spelling. Everyone intuitively appreciates that some words are more difficult or esoteric than others. The same reasoning needs to be applied to other areas of language, such as phonology (as needed, for example, for metrical analysis in poetry) and grammar. Research into child language acquisition is especially valuable here, as the stages through which children naturally acquire the phonological, grammatical, and semantic features of their mother tongue(s) can be guidelines about levels of complexity that could inform the creation of a linguistically sophisticated syllabus. Might such a syllabus arise out of the research papers in this journal?

A particularly appreciated strategy is the incorporation of suggestions and guidance about teaching into introductory accounts. I did this in a series I wrote for Profile Books on the topics of grammar, pronunciation, spelling, and punctuation, where each book has a final chapter of suggestions for introducing the subject-matter in class. Some of the suggestions will arise naturally from the exposition in the book, but many come out of the classrooms themselves, either from direct observation or from teacher collaboration. An example is the range of activities included in *Making Sense*, which incorporated some of the ideas that arose within the Buckinghamshire Grammar Project (Thomas, 2013) - an 18-month teacher-linguist collaboration in which ideas introduced in an initial conference were taken back to schools for trialling, out of which came further ideas that

were then shared in a follow-up conference, sometimes modified, and tried out again in other school settings. I have found that this pattern of activity is a fruitful way of ensuring that a good bridge is constructed between theory and practice, but I do not know which type of provision works best. Exploring alternatives will be another area for future research. There are difficulties to be overcome, such as the outlay of time it takes to implement such a procedure, and the level of cover required in schools to enable teachers to participate. A sympathetic local government agency seems to be critical.

Questions of simplification and grading becomes even more of an issue when information about language is presented to students in schools, whether through invited talks or the writing of materials. Many linguists have been asked to give talks in schools, the success of which depends entirely on their being able to give an account of their topic in a way that is entertaining as well as informative, and simplified without 'talking down'. It is obviously important here to be sure of the level of the students being addressed, and to be aware of what kind of prior knowledge they have - such as which topics in their syllabus have already been covered. A preliminary discussion with their teacher(s) is essential, to avoid overestimating what the students know, or - just as important - underestimating it. I'm thinking here of a talk I once gave to a sixth-form (17-year-old) group that explained at some length the topic of sociolinguistic accommodation, only to be told afterwards that they'd covered the topic in class the week before. I felt better when the teacher said she was happy to have her students see that her teaching had been validated by the visitor! But this points to yet another research area: which linguistic topics are being taught (or should be taught) at which levels in what order and for how long? I would be especially interested to find out which linguistic topics can be taught down the school, and especially at primary level - for example, at what stage introduction to accents and dialects can be best introduced.

When it comes to creating materials, I find it essential to collaborate with a teacher - though I acknowledge that this might not be necessary if linguists are very familiar with syllabus content or have had a dual career in which classroom experience has played its part. For the *Databank* and *Datasearch* series of information books, aimed at late juniors / early seniors (roughly, 10--13-year-olds), the role of my collaborating teacher was to select the topics (for example, in history or science) and produce a draft of the content; my own role was to present this in such a way as to make the tasks of reading and comprehension easier. A similar situation was involved in *Skylarks*, aimed at 6--9-year-olds. The task involved an evaluation of all areas of written language, and the implementation of several principles derived from research in (especially) stylistics and psycholinguistics.

At an orthographic level, for example, a principle was adopted of avoiding line-breaks that would interfere with easy reading or prompt miscues. Mature readers have no trouble carrying over the sense from one line of right-justified text to the next, taking hyphenations in their stride; but this can pose a problem for children who are finding reading difficult. So lines were printed that coincided, as far as possible, with units of sense; and sentences were sometimes restructured to enable this to happen. The opening paragraph of *Volcanoes* illustrates how an originally justified text can be made much easier to read by respecting grammatical boundaries.

(1)

A volcano is a special type of hill or mountain, formed around an opening in the earth's surface. Gases and melted rock are forced out from deep inside the earth through this opening. The melted rock is called *lava*. When the lava cools, it forms a hill or mountain around the opening, and this is known as a *volcano*.

(2)

A volcano is a special type of hill or mountain, formed around an opening in the earth's surface. Through this opening, gases and melted rock are forced out from deep inside the earth. The melted rock is called *lava*. When the lava cools, it forms a hill or mountain around the opening, and this is known as a *volcano*.

The fourth line of (1) also illustrates a potential miscue. Children reading this aloud can interpret the string *When the lava cools, it forms a hill* as a complete sentence, dropping their intonation and pausing. They then get into trouble when they try to make sense of the next line. I had the opportunity at the time of carrying out only one small research study to support decisions about which line-breaks were most facilitating (Raban 1980; Crystal 1979); a great deal more could be done, using comprehension tasks, fluency measures, and the like to determine the effect of alternative layouts.

Other aspects of restructuring would include the way information is presented between and within sentences. Comprehension is facilitated when there are transparent connections between sentences: *an opening* towards the end of the first sentence in (2) is taken up by *this opening* at the beginning of the second (something that does not happen in (1)); *melted rock* in the second is recapitulated by the opening noun phrase of the third; and *lava* at the end of the third is immediately taken up by *the lava* in the fourth.

(3)

A volcano is a special type of hill or mountain, formed around an opening in the earth's surface, Through this opening, gases and melted rock are forced out from deep inside the earth. The melted rock is called *lava*. When the lava cools, it forms a hill or mountain around the opening, and this is known as a *volcano*.

I can envisage several research studies of discourse structure that would establish which kinds of inter-sentence connectivity were most facilitating.

An obvious aim, especially for children (or adults) who find reading a challenging experience, is to reduce sentence complexity. In a more advanced style, this sentence from (1) might well have been written:

(4)

Gases and melted rock, called *lava*, are forced out from deep inside the earth.

But the combination of increased length of the grammatical subject and a subordinate clause adds an extra level of complexity, which can be resolved by turning the subordinate clause into a separate simple sentence, as shown in (2). One should also try to respect the principle of end-weight in English (Quirk *et al*, 1985: 18.9), whereby the length of a clause is found after a verb and not within the grammatical subject. It is easier to read the second of the following two sentences:

(5)

A special type of hill or mountain, formed around an opening in the earth's surface, is known as a volcano.

A volcano is a special type of hill or mountain, formed around an opening in the earth's surface,

We can also see end-weight operating in a smaller way in coordinate phrases: *hill and mountain* (vs *mountain or hill*), and *gases and melted rock* (not *melted rock and gases*). These are examples from English. To what extent is a similar principle of end-weight operative in other languages? Does it apply equally in languages where the normal clause-element order is not Subject + Verb + Object (or Complement or Adverbial) - such as Welsh, which is a VSO language? We need much more comparative linguistic research in language and education.

Teacher/linguist collaborations are not the easiest of things to arrange. Assuming one has found colleagues with whom one gets on well, there is the inevitable difficulty of finding mutually convenient times to meet and exchange ideas and drafts. The schedules of a school teacher and an academic rarely coincide. The books in the *Databank* series were only 32 pages in length, but it took around three months of sporadic and often rescheduled meetings to complete each one.

Whether writing in collaboration or solo, for a younger age group it is good practice to have a draft checked by at least one member of the group for whom it is intended - something I learned when I was asked to write an introduction to language for young teenagers (what was eventually published as *A Little Book of Language*). When the book was in complete draft form, I gave it to a 12-year-old to read, with the instruction that she should underline anything that she found difficult to understand. I was not prepared for the results! For example, when she got to the section in which I talked about pseudonyms, and illustrated from some celebrities who have used them, she underlined *John Wayne*. It had not dawned on me that anyone under a certain age might have no idea who this cowboy film-star was. It took some time to find a substitute that my critical reader thought kids of her age would know - the pop-singer Eminem was the result. There is an inevitable gap - cultural as well as linguistic - between the intuitions of an adult writer and a child reader. Certain differences will be obvious (such as not including examples of income-tax forms in a chapter on style in a book aimed at young readers), but many will not. I do not know where I could go to find out about developmental interest levels, to alert me (or any children's writer) to areas of cultural change. Another topic for future research.

Pictorial illustrations also help make a text for young readers (or, indeed, anyone) appealing, for which a different kind of collaboration may be required: a professional illustrator. A well-crafted cartoon can lift even the most potentially boring piece of linguistic terminology, as I found with the cartoons by Ed McLachlan for my *Language A to Z*. And sometimes a picture - as they say - is better than a thousand words. In the *Oxford Illustrated Shakespeare Dictionary*, for example, illustrator Kate Bellamy gave a life to several words that a linguistic description could never achieve - such as *topmast*, *arras*, and *rapier*. And for the youngest children, illustration of course is a central principle

No survey of the relationship between language education would be complete without including two other domains of relevance: continuing professional development in businesses and other organizations, and the provision of resources to meet the interests and curiosity about language found among the general public. In relation to the first, my own experience includes working with companies as diverse as Shakespeare's Globe in London (teaching original pronunciation to casts), Stena ferries (training on-board staff in techniques of voice production for the public address system), and the BBC (advising on policy relating to accents and dialects). Many linguists have taken on advisory roles with organizations where language issues are a regular source of contention,

such as providing opinions in a law court setting. It might be thought that such work has nothing to do with education. In fact, one typically has to spend a great deal of time teaching the other professionals about the linguistic concepts they need in order to identify and resolve their problems. In the legal situation, for instance, expressing an opinion may involve teaching the judge, tribunal members, and other lawyers (and not forgetting the members of a jury) about the technical terms needed in order to understand the linguistic evidence, and doing so in such a way that the explanations can be easily understood within the restricted time available. A court case involving voice recognition, for example, will require some teaching about acoustic phonetics; a contract dispute will require some explanation of syntactic structures.

Meeting the interests about language among the general public includes all of the above, and goes further. The range of subject matter is broader than anything encountered in a school syllabus or a professional setting, and the range of media involved is much wider, including radio and television broadcasting, newspapers and magazines, and the many domains of the Internet. There are countless blogs, podcasts, and chatrooms now which focus on language matters - sites or articles that present opinion pieces, 'words of the month', language quizzes and competitions, and so on. But very little research has been done into the relative effectiveness of different media or genres in conveying information about language, or how a particular topic might be best expressed in order to achieve maximal comprehension.

Finally, we should not forget the many advisory, consultancy, patronal, or committee roles in resource centres, libraries, and organizations involved with language teaching, where the skills and knowledge of professional linguists are taken up by the world of education. Of especial importance is the role played by linguists in the formation and implementation of government policy, such as when dealing with the state of minority and endangered languages, or in fostering a multilingual ethos in schools and higher education. These are functions that warrant research investigation too, if only to improve the quality of future involvement. The experiences of linguists who have participated in such enterprises has been very little recorded or evaluated.

What is the best word to relate the two domains, language and education? Traditionally it is the conjunction 'and', as in the title of this journal. But *and* is an anodyne conjunction: it leaves open the nature of the semantic relationship between the elements it links. Personally I prefer prepositions to conjunctions, and there are some interesting relationships suggested by them: language for education, ... with education, ... through education, ... in education? My favourite is the one I have used for the title of this paper.

References

- Databank* series. With John L Foster. 30 books. London: Edward Arnold, 1979-85.
Datasearch series. With John L Foster. 4 books. London: Hodder & Stoughton, 1991.
Discover grammar. London: Addison-Wesley-Longman, 1996.
Language A to Z. Two student books and Teacher's book. London: Longman, 1991. Integrated and updated, 2013 at www.davidcrystal.com.
Making a point: the pernickety story of English punctuation. London: Profile Books, 2015.
Making sense of grammar. London: Pearson Longman, 2004.
Making sense: the glamorous story of English grammar. London: Profile Books, 2012.
Oxford Illustrated Shakespeare Dictionary. With Ben Crystal. Oxford: Oxford University Press, 2015.
Rediscover grammar. London: Longman, 1988; 3rd edn 2004.

Skylarks: a language development programme for 6--9-year-olds. With J. Bevington. 48 booklets and teacher's notes. London: Nelson, 1975.

Sounds appealing: the passionate story of English pronunciation. London: Profile Books, 2018.

Spell it out: the singular story of English spelling. London: Profile Books, 2012.

Other references

Aarts, B. 2012. *Englicious*: English language resources for schools. Survey of English Usage, University College London. www.englicious.org

Crystal, D. 1979. Reading, grammar, and the line. In D. Thackray (ed.), *Growth in Reading* (London: Ward Lock Educational), 26-38.

Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. 1985. *A Comprehensive Grammar of the English Language*. London: Longman,

Raban, B. 1970. Line breaks in texts for young children. London: Social Science Research Council, HR6390/1.

Thomas, L. 2013. *The Buckinghamshire Grammar Project*. Buckinghamshire Learning Trust. www.bucksgrammar.weebly.com