Introduction: Responses to the changing face of language education

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1 Introduction
In the 1960s, M. A. K. Halliday and his colleagues set about to develop a model of linguistics which could better support language teaching than could the grammars then available (Halliday et al. 1964; Mackay et al. 1973; Halliday and Hasan 2006). Out of these projects grew Systemic Functional Linguistics (SFL), a functional theory of language, which has had profound impact on educational practices today, not only in language education, but in education as a whole, for instance through the genre-based literacy approach (cf. Martin and Rothery 1986). (See Whittaker et al. 2006 for applications of SFL in education around the world).

However, the classroom is not static, and the changing face of educational needs has been a driving force behind both how SFL has been applied and how it has been extended. For instance, the 1970s saw an increasing pressure to produce critical readers – readers who could discern the way discrimination and social inequality are established and maintained through discourse. In response to this need, Critical Discourse Analysis (CDA) arose as a set of techniques for revealing implicit world-views in text, and thus allow readers to avoid the subliminal manipulation of their ideologies.

Earlier work in CDA has been criticized as too anecdotal, basing analyses on selected phrases within a text, rather than systematic study. However, increasingly, analysts have turned to SFL to inform deeper, grammatically based analyses of text. In recent years, CDA in various forms is entering the classroom, as part of the resources given to both first and second language learners (cf. Janks 1991).

While CDA draws upon Hallidayan SFL, other educational needs have forced radical advances within SFL. In recent years, researchers in and about SFL have started to focus on two areas which were not centrally addressed in the Hallidayan model, but clearly of relevance to language education:
1) **The need to deal with multimodal 'texts':** SFL has been oriented towards the analysis of spoken and written language. However, daily we are confronted with texts where the message is communicated not only via text, but via the interaction between text and images on the page. Language education needs to teach learners how to interpret such texts, and teaching needs to be supported by a well-formulated theory of how different modes interact. The same is true for the interaction of image and audio in film. The web also has introduced new kinds of texts, inter-mixing media in ways never seen before.

2) **The need to analyse the attitudes expressed in text:** While SFL recognized an 'interpersonal' component of meaning, the model as stated did not readily support the analysis of speaker attitudes in text. During the 1990s, Peter White, Jim Martin and others developed an approach to attitudinal text analysis, complementary to SFL, called 'Appraisal Theory' (Martin 2000; Martin and White 2005; White 2006). Appraisal Analysis has started to show its usefulness in language education, allowing learners to see how the choice of wording not only encodes states of affairs, but also the speaker/writer’s attitude to the entities and events of the text.

While the digital age has confronted us with new kinds of texts, it has also provided us with new resources with which to deal with them. One such tool is the computational corpus, which allows large bodies of text to be searched rapidly, so that we can explore the patterns of language as never before. This has permitted researchers to examine in more depth the ways in which lexis and grammar work together, allowing for greater explicitness in terms of language patterns and probabilities of co-occurrences. The increased understanding of how language works in practice offers new insight as to how language education should proceed.

This book presents these developments in linguistic theory – mainly extensions of and around SFL – and their applications to changing needs in education. It is really only in the new century that these techniques have become mature enough to be used in the classroom, and to start to change the way education through and about language takes place, providing new tools for language educators and, in some cases, for the language learners themselves.

2 **Multimodality and education**

Advances in technology are affecting the ways in which we represent our world, in educational settings and the workplace, where the printed page has long held supremacy, as it is now much easier to incorporate image and sound through the medium of the computer screen. Image has also come to hold a more prevalent place in printed materials, lessening, and perhaps in some cases overcoming, the domination of written text (see Kress and van Leeuwen 1996; Kress 2003 and this volume). According to Macken-Horarik (2004: 6), '[a]nalysing and production of integrated texts
has now become a routine part of school learning – whether in visual arts, science, geography or even English’. The inclusion of other modes of representation besides the written word is not actually a new phenomenon, as Lemke (2002: 24) points out, exemplifying with science textbooks which ‘contain not just words in sentences and paragraphs, but tables charts, diagrams, graphs, maps drawings, photographs, and a host of specialized visual representations from acoustical sonograms to chromatography strips and gene maps’. Work by researchers on mathematics (see, for example, O’Halloran, this volume) shows how different forms of representation work together, through intersemiotic expansion, to construct the field of mathematics. Yet, while multimodal representations in education are not new, the explosion of multiple modes of representation, brought about in large part through the revolution in technology, calls for different ways of understanding meaning-making in a given context. In other words, there is a clear need for a focus on multimodality in education, and the first section of this book responds to this need.

The current shift in ways of presenting reality through a wider variety of more easily accessible media parallels, in interesting ways, the shift which occurred when the printed word became more readily available. Scholars such as Eric Havelock and Walter J. Ong show how the development and proliferation of alphabetic writing systems ‘fundamentally altered cultural epistemologies’ (Casaregola 2003: 217). Gee (2003), in his work on the impact of video games on literacy development, reminds us that it is our situated selves that experience the material, social and cultural world in a certain way, often repeated time after time, which means that approaches to education need to take into account the material, social and cultural artefacts that shape text production. This challenge is taken up in Chapter 1, ‘Meaning, learning and representation in a social semiotic approach to multimodal communication’, where Gunther Kress addresses current shifts in the means we use for making representations, and reflects on how these shifts impact the ways in which we come to make sense of the world. As with the move from a manuscript culture to a print culture, where ‘[a]uthorities can be questioned much more easily and cheaply’ (Casaregola 2003: 215), Kress argues that increased sites for authorship through technology and multiple entry points in web pages and school textbooks mean that authority is appropriated by greater numbers of writers, and readers now take decisions as to how they make their own way through texts. This dispersion of authority needs a response: reflection on and changes in curricula.

We need, then, greater understanding of how multiple modes of representation combine to construct meaning, and also of how educators might best help in literacy development across the semiotic modes. SFL has provided a solid tradition of analysing text in context which analysts, educators and researchers have used to come to an understanding of the semiotic workings of language, in terms of how linguistic choices come together to convey meanings through the three metafunctions of
language: the ideational, or the way in which language is used to represent world of experience; the interpersonal, or the way language is used to establish and maintain relationships between people and also to express attitudes and opinions; and the textual, or the way language is used to organize these meanings. These understandings are helpful in setting up a solid basis for literacy development across a range of educational and workplace contexts (cf. Cope and Kalantzis 1993; Hasan and Williams 1996; Christie and Martin 1997; Christie and Mission 1998; Unsworth 2000; Schleppegrell and Colombi 2002; Whittaker et al. 2006).

However, new technologies with the accompanying expansion of modes of representation call for an expanded analysis, given that literacy practices often take place in settings where multiple modes of representation come together to make meaning. Macken-Horarik (2004: 6) states the call clearly when she writes ‘educators need access to analytical apparatuses (including grammars) which enable them to relate one modality to another in explicit and mutually informing ways’ and ‘students . . . need access to metasemiotic tools for analysing these texts – tools that enable them to move in a mutually comprehensible way between one modality and another’.

Kress (2003) and Kress and van Leeuwen (1996) have found Halliday’s multi-stratal language model a sound base when expanding from the study of verbal language to the study of multimodal discourse. There is a lot of support for this approach, stemming from initial work carried out by O’Toole (1994). Royce (2002) for example, picks up this application of the metafunctional approach to language as applicable to other semiotic modes as well:

...almost any image type can be analyzed in terms of what it presents, or its subject matter. A visual can also be considered in terms of who it is being presented to (the expected target audience), how the audience is being addressed (asked questions, given information, etc.), and whether there are relations of power or inclusion/exclusion being expressed. A visual can also be considered in terms of how it is presenting its messages, or in terms of its composition or layout.

At present, a lot of work is using SFL and related approaches to analyse multimedia texts. Burn and Leach (2004: 156), in suggesting ways of working with moving images in the English classroom, write that ‘references to linguistics can be productive, even provocative’, and specifically mention SFL and its three metafunctions as an apt way of analysing moving image in an educational setting. The New London Group (2000) calls for a framework of analysis with a metalanguage which allows for choices in representation to be related to the social contexts in which they are produced. Unsworth (2001) connects this call with SFL in its focus on the context of situation and the context of culture. Indeed, a growing amount of research being done within the SFL paradigm to analyse multimodal texts, and also to suggest paths of multimodal literacy development (cf. Kress and van Leeuwen 1996; Unsworth 2001; O’Halloran 2004; Ventola et al. 2004; Baldry and Thibault 2006; Hanauer 2006; Kress et al. 2006; Royce...
and Bowcher 2006) and it is our purpose in this volume to add to this work.

The chapters in the first section present research and applications which help in our understanding of multimodal texts, responding, through SFL, to Kress’s concerns expressed in the opening chapter. The chapters focus on different educational levels, ranging from young children to university students. Addressing the early reader level, in Chapter 2: ‘Children’s picture book narratives: reading sequences of images’, Clare Painter looks at picture books as a child’s first experiences of written narrative, and develops Kress and van Leeuwen’s (1996) work to take greater account of inter-visual (and eventually inter-modal) meanings in narrative texts so as to enhance engagement in visual literacy education.

This chapter is complemented by Chapter 3: ‘Popular culture in the classroom: interpreting and creating multimodal texts’, in which Katina Zammit describes work done in the classroom on analysis and production of multimodal texts by primary-school children. Zammit explains the genre-based teaching/learning cycle, in particular the methods of scaffolding students’ understandings of visual, written and multimodal texts in paper-based and electronic media. She argues that this kind of work in the classroom can help young readers attain a more critical reading position, and thus be more aware of how texts may attempt to manipulate thoughts and feelings.

Moving up to secondary school, in Chapter 4: ‘Systemic functional multimodal discourse analysis (SF-MDA) approach to mathematics, grammar and literacy’, Kay O’Halloran provides a systemic-functional framework for analysing written mathematical discourse in terms of its language, mathematical symbolism and the mathematical visual images used. She discusses the implications for literacy in terms of the grammars, strategies for encoding meaning and metaphorical shifts which take place in mathematical discourse. At the tertiary level, Chapter 5, ‘Multiliteracies for academic purposes: multimodality in textbook and computer-based learning materials in science at university’, by Janet Jones, analyses the changes brought about by information and communication technologies in literacy and pedagogical practices. Jones is interested in understanding the kinds of literacies students need in the new multimodal, hypertextual and multimedia learning environments, and discusses the results of a multimodal content analysis of a corpus of textbook and computer-based learning materials from undergraduate science courses at the University of Sydney. She takes into account the relationship between visual and verbal elements, including technicality and abstraction in the various modes, and considers implications of the interplay across modes for developing students’ multiliteracies for academic purposes. Thus, the chapters in this section all provide ways in which those involved in education can move towards helping learners untangle the complexities of multimodal representations in their classrooms.
3 Discourse analysis and education

Multimodality is not the only reason why SFL has needed to develop to address the changing needs of language in education. There has been a growing need to produce critical readers, readers who can not only read the overt meanings in a text, but can also read between the lines to see covert representations, to see the implicit assumptions in text which can shape the reader’s point of view without them being aware of this.

CDA has its roots in the work of Kress, Fowler, Hodge and Trew during the late 1970s (Fowler et al. 1979; Hodge and Kress 1979), and has slowly become more rigorous in its analysis, moving away from its original, rather anecdotal methodology and developing more systematic analysis of the text as a whole. One aspect of this increase in systematicity was greater use of grammatical analysis, and, in particular, while certainly not the sole source, SFL has been increasingly involved in CDA analyses. Kress himself has been a prominent figure in SFL (e.g. Kress 1976), and much of his metalanguage draws on SFL. Fowler also draws on SFL, as he acknowledged:

Halliday’s systemic-functional linguistics . . . is specifically geared to relating structure to communicative function, and this model provides most of my descriptive apparatus. (1991: 5)

Increasingly, CDA has been applied in language education. For instance, during the 1990s, Fairclough (Fairclough 1992), Janks (e.g. Janks 1991) and others developed CDA as a tool for classroom education, giving it the name ‘Critical Language Awareness’ (CLA). CDA has also been a major contributor to the field of critical literacy as a whole.

The first chapter in this second section, David Hyatt’s ‘Applying a Critical Systemic-Functional Literacy Frame in a UK secondary education context’ (Chapter 6), offers a detailed framework for the analysis of text to reveal critical patterns. He provides a step-by-step procedure for text analysis in the classroom, including grammar (e.g. pronouns, tense/aspect), semantics (e.g. metaphors, presuppositions) and context (e.g. audience). Using this, Hyatt has built a critical analysis frame based on the SFL model. For each stage of his analysis frame, he refers to the theoretical bases in mainstream SFL. He not only includes core SFL areas of grammar, but also aspects from newer areas of SFL, such as Appraisal Analysis and Multimodal Analysis. Hyatt’s frame has been developed specifically for use in education, by students at secondary level. It is intended to be easily applied by students, and allows them to make explicit the strategies speakers and writers use as they represent situations and their social actors (van Leeuwen 1996). The frame is being tested with teachers, teacher-trainers and secondary-school students in a project at Sheffield University’s School of Education, and the author is working on its application in the area of citizenship teaching.

Another type of discourse analysis, Appraisal Analysis, has its roots in ‘The Write It Right (WIR) Project’, run in Sydney during the first half of the 1990s. WIR was oriented towards improving language education
practices in secondary schools (see Veel 2006). The project produced many innovations, and one of the most important was Appraisal Theory (Martin 2000; Martin and White 2005). At that time, the SFL model had not developed the affective analysis of text: the recognition of the speaker’s expression of attitude towards participants and processes within the text, or of attitudes assigned to participants within the text with respect to other participants and processes. One reason for this lack is perhaps that the markers of affective language are not located in one particular unit within a Hallidayan model. Appraisal can be realized in terms of lexical choice, but can also be dependent on combinations of words within a clause or phrase. Appraisal can also be realized through the decision to express rather than suppress information. Despite this complexity, White and Martin have developed a coherent theoretical framework for analysing expression of Attitude. A second component was added for analysing the scaling of attitude, called Graduation. During this time, White was working on a related area: how the writers of news articles align or distance themselves with respect to other voices they include in their texts. This area was built into Appraisal Theory under a third branch, called Engagement. Analyses using these systems of Attitude, Engagement and Graduation provide a way of making attitudinal meaning of different sorts visible, allowing explanation and debate around this very often elusive aspect of texts.

In recent years, investigation has been underway applying Appraisal Theory in the classroom, both to improve the teacher’s assessment of student work, and also through the explicit teaching of Appraisal Theory to students to help them improve their own work, and to assess the work of others, which, in essence, amounts to the application of Appraisal Theory as a form of CDA.

Four chapters show how Appraisal Theory can be applied in education. Development of control of the resources for appraisal goes on throughout the different levels of education, as Bev Derewianka shows in Chapter 7, ‘Using appraisal theory to track interpersonal development in adolescent academic writing’. She analyses texts written in history classes from early secondary up to university level, illustrating the progression students make as they respond to changing demands in the curriculum. Derewianka demonstrates how the more mature texts have moved away from the encoding of direct personal response to more objective and less explicit evaluation, based on social norms. She also demonstrates how older writers are developing awareness of other points of view, bringing other voices into the text and recognizing multiple points of view in their readership, as they learn to argue around propositions, rather than judge a person, group or event from a personal perspective.

In a similar line, in Chapter 8, ‘Appraisal in expository texts: insights and pedagogical implications’, Elizabeth Swain shows the strength of Appraisal Theory analysis to do away with the myth of objectivity, which, at the same time, is in contradiction with the requirement of persuasiveness in pedagogic materials for academic writing. Again, she is able to make
explicit the reasons for the evaluation of students’ texts, this time written in English as a foreign language by Italian university students. She gives a very detailed analysis of appraisal resources in two student texts, showing the key role of the subsystems of ENGAGEMENT in the construction of a coherent academic argument, and proposes an approach to the problem of teaching academic discussion and argument.

Chapter 9, by Susan Hood, again applies Appraisal Theory, in this case to communication among researchers. Her chapter ‘Arguing in and across disciplinary boundaries: legitimizing strategies in applied linguistics and cultural studies’, shows how different disciplines apply appraisal resources differently, arguing that smoother cooperation across disciplines requires academics to be aware of differences in appraisal style. She applies appraisal analysis to the introductions to two theses, one from Applied Linguistics, the other from Cultural Studies, showing the former to be more explicitly knowledge-focused in its appeal to other work in the discipline, the latter to be more knower-focused and based on shared knowledge inside the field. Hood leaves us with the question of how disciplines with different epistemological bases can communicate together.

In Chapter 10, ‘On the “internal dialogue” between an examination task and pre-university students’ responses’, Bodil Hedeboe applies a combination of Appraisal Theory, and work on genre theory (specifically work by Eggins and Slade 1997) to answer the questions raised by her analysis of Swedish students’ responses to a written task in their school-leaving examination, and, again, finds it possible to reveal the criteria for what might seem surprising evaluations by raters. Her analysis of the task set in the examination shows that, though the students were told to write an argumentative text, many linguistic features of the prompt led students to produce a text in the gossip genre rather than an academic argument. However, maturity in writing was recognized by the examiners in the register features of the written mode (Halliday 1989) of the more successful of the responses analysed. Hedeboe calls for explicit teaching and training in features of genre both for students and for their examiners.

The final chapter in this section on discourse analysis is Chapter 11, by Inger Lassen: ‘A discourse analytical study of decontextualization and literacy’. Lassen’s chapter is more purely SFL than the previous studies, drawing on core SFL resources: genre, register, etc. to highlight problems of communication in academic communication. Even inside a discourse community – in her case, of scientists working in protein chemistry, specifically on the genetic make-up of a variety of potato – texts may be inaccessible to those who do not belong to the same small ‘community of practice’, once such texts are taken out of their original context. Lassen finds that implicitness is a feature of both the Methods section of the article and of the lab account she analyses. This means that these texts are not accessible to those outside the immediate group of scientists working together on the experiment, despite the supposed function of facilitating replicability of scientific reports.
4 Corpus linguistics and education

Computers have brought new challenges to education by providing us with new kinds of texts. At the same time, the power of the computer has given us new means of dealing with this new complexity. We now have available electronic corpora, large digital collections of texts, and tools to explore the corpora for text instances.

The most important way in which language education is being affected by corpora is that our very understanding of language is changing. Sinclair (2004), for instance, after a long career working with corpora, came to believe that reading is more idiomatic than constructive: it is more a matter of interpreting semi-fixed sequences of words than it is of making meaning one word at a time.

This volume includes two chapters exploring new views on the nature of language when seen through corpora, and the consequences for these views on how language should be taught. First, in Chapter 12, Gordon Tucker’s ‘Exposure, expectations and probabilities: implications for language learning’ argues that while we may be able to construct infinitely many sentences, in practice, we typically use a far smaller set of wordings: There is thus a set of social meanings, conventional ways of seeing the world, that populate the very heart of most social interaction. And this is premised on the claim that speakers, when they endorse a ‘meaning’ and adopt it, are more likely to express it in an identical or closely similar way to the way in which they have regularly encountered it, rather than seek some novel form of expression for it. (Tucker, this volume)

He argues that particular combinations of words occur statistically more often than others, and that an intuitive sense of these probabilities (based on exposure) are an essential part of our language ability. Thus, to properly teach a language, language educators need to raise language learners’ awareness of probabilistic expectations of language forms.

Susan Hunston, in Chapter 13, ‘Grammar patterns and literacy’, goes even further, arguing that large-scale corpus work pushes on towards viewing a sentence as a linear sequence of semi-fixed phrases, which mesh together to form the sentence. She argues that readers only take recourse to word-for-word interpretation of a sentence as a last resort, when no phrasal, idiomatic pattern applies. If language teaching is to exploit what we know about how native speakers process their language, then such teaching should be based on a grammar which supports this analysis. Hunston describes this Pattern Grammar – which Gill Francis initially formulated, and Hunston developed – as viewing the construction and reception of sentences in this way. Using Pattern Grammar for teaching reading may well change the nature of language education.

5 Summary

This book, then, brings together the work of language educators and researchers of language who are developing new ways of looking at ‘text’,...
or applying the recent advances in language analysis within language education. We have tried to organize these works into a coherent framework, distinguishing three areas of development: multimodal analysis, discourse analysis and corpora. We hope the book as a whole offers a useful resource to all those involved in education who are trying to understand what these new directions can take, or, for those already working in them, offering some new ideas to enrich their practice and research. Ultimately, the voices of the educators and researchers who have contributed to this project, along with those of the learners reproduced in their chapters, offer new ways of understanding and of raising awareness as to the shape of language as instance – that is of language often working in conjunction with other modes of representation – and of language as system, an understanding which we feel is more and more necessary in today’s complex society.

References


