New challenges for literature study in primary school English: building teacher knowledge and know-how through systemic functional theory

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Abstract

Australian primary school teachers face two major challenges in their implementation of the national curriculum for English: literary study and multimodality. Whilst teachers and students frequently engage with texts like literary picture books, the requirement that teachers build children’s understandings of texts as patterned, aesthetic constructs is new. And it is especially demanding for teachers without specialized training in either literature or multimodality. They must learn to manage the expanded ‘reservoir’ of meaning in school English and develop ‘repertoires’ of semiotic understanding in the course of full-time teaching (Bernstein, 2000). This paper emerges from a larger study that aimed to meet the challenge of literary study in English by introducing practicing teachers to a semiotic toolkit inspired by systemic functional grammatics. Grammatics, as Halliday (2002) interprets it, distinguishes the theory from the practice of grammar, the metalanguage from language in use. In our project, systemic functional grammatics included study not just of clause-level choices in language but their role in larger discourse frames and, via analogy, in images and multimodal texts. We made use of the ‘resemblance’ between focalization in print narratives and in bi-modal narratives picture books. Adapting semiotic principles like stratification and metafunction to national curriculum notions of ‘levels of analysis’ and ‘threads of meaning’, we used systemic functional (SF) theory to open up the potential of literature study for English teachers in NSW and Victoria, attempting to build understanding about the ‘uses’ of grammatics for a relatively uninformed group of ‘users’ (Martin et al., 2013). Because of the need to manage the theory-practice nexus in professional learning, we attempted to characterize ‘knowledge about’ images in narrative in accessible and systematic ways and to relate this to pedagogic ‘know-how’ in primary teaching and assessment of narrative.

The paper introduces the analytical framework we developed to represent and develop knowledge and know-how in primary school literature study. It shows how we used the framework to benchmark teacher starting-points as they commented on students’ responses to a picture book called The Great Bear by Armin Greder and Libby Gleeson (1999). It overviews input provided to teachers in workshops based on SF principles such as system, stratification and metafunctions. Finally, it overviews our initial findings based on our analysis of follow-up interviews with two teachers as they reflected on students’ responses to The Tunnel, by Anthony Browne (1989). Changes are arrayed on clines produced to account for shifts in teacher knowledge and know-how. Early results of our project are very encouraging, providing evidence of significant if varied growth in teachers’ orientations to narrative meaning and increased levels of meta-semiotic awareness. The paper concludes with reflections on the use of SF grammatics for meeting the challenges of literature study in primary school English in an era of multimodality.

Keywords: systemic functional semiotics; literature; primary school English; grammatics narrative appreciation.
1. Introduction

The field of literary study is expanding to accommodate not just new kinds of literature such as picture books, graphic novels and film narratives but new ways of reading these. In Australia, this reaches down to early years of schooling as primary teachers now begin to analyze the texts they previously simply enjoyed with their students (Commonwealth of Australia, 2012). In the new Australian curriculum for English, ten year olds must learn to see literary picture books less as ‘windows’ on experience and more as aesthetically patterned literary ‘constructs’ that explore deep themes of human experience. And, if images shape interpretation as powerfully as words, the knowledge base of the profession must now include specialized understandings of multimodal texts. It is a decisive moment for primary school teachers, many of whom are unfamiliar with both literary study and multimodal analysis. In this new curriculum context, teachers must work within an expanding ‘reservoir’ of meaning in English and acquire new ‘repertoires’ of understanding in order to do so (Bernstein, 2000). What kinds of knowledge and know-how will enable them to foster understandings not only of more traditional concerns like theme, plot, setting and characterization but of the contribution of images to these? Does systemic functional theory have something to offer in this enterprise?

This paper emerges from a larger study introducing practising teachers to knowledge about language based on systemic functional grammatics (Macken-Horarik, Unsworth & Love, 2011-2014). The term ‘grammatics’ was coined by Michael Halliday (2002) to distinguish one’s theory of grammar from grammar in use, metalanguage from language. The project from which the current work emerged investigated the grammar-genre connection in school English, with a special focus on wordings. Drawing on portable notions like system, metafunction and stratification, we were able to exploit powerful resonances between clause and text (Halliday, 1981) and to relate wordings like mental process clauses and projection to higher order narrative strategies like internal focalization. Developing a toolkit relevant to both clause and text-level meanings was crucial if we were to persuade English teachers that SF grammatics had something to offer the study of literature. In 2011 and 2012, we introduced primary and secondary English teachers to a grammatics of narrative and argument respectively. Then, in 2013, we moved beyond verbal grammatics to explore what we called (boldly perhaps, given the limited purview of grammatics) ‘image grammatics’ (Unsworth & Macken-Horarik, in press). We introduced teachers to semiotic tools for analyzing images in literary picture books and then to response genres for integrating image analysis into written interpretation. In this way, we hoped to address the new demands of a national curriculum through strategic adaptation of systemic functional (SF) theory. The portable character of tools like genre, metafunction and stratification was crucial to this enterprise.

In the current paper we present a framework for characterizing knowledge necessary to help students engage effectively with bi-modal literature, especially texts in which images carry a powerful semantic load. The developmental framework depicts teachers’ starting points and resting points after a period of implementation of image grammatics. Representing growth in teachers’ semiotic awareness along developmental clines was valuable, as we will show. Primary school teachers like Bianca and Boyd, who feature in this paper, made substantial gains in understanding, but these were fragile on some dimensions and they were certainly uneven. Given the necessary interface between literary study and SF theory, between ‘knowledge about’

1 These are pseudonyms for real teachers who gave us permission to use data from interviews and observations, as did their students.
and ‘know how’, we needed to develop several clines to capture different dimensions of semiotic awareness.

In this paper, we draw substantially on data from Bianca and Boyd, both of whom were new to literary study and visual analysis. Prior to our discussion of their ‘semiotic starting points’, we introduce key systemic functional principles of metafunctions, system and stratification, and show how we adapted these for our project. We consider kinds of knowledge and know-how evident in reflections by Bianca and Boyd on their students’ responses to a picture book called *The Great Bear* by Libby Gleeson and Armin Greder (1999). Using a four-point ‘theoretical compass’ based on goals of our project and their interface with SF theory, we explain aspects of workshop input relevant to teacher change and ways in which teachers used this in classrooms. We then explore post-intervention interview data from Boyd and Bianca as they reflected on two students’ responses to a second picture book called *The Tunnel* by Anthony Browne (1989). We benchmark changes in teachers’ knowledge and know-how, presenting evidence of significant if varied growth in each one’s semiotic awareness—mapping shifts understanding that appear sensitive to their levels of engagement with principles of the grammatics. We conclude the paper with reflections on the contribution of systemic functional theory to literature study in primary English in an era of multimodality.

**2. New curriculum demands of English**

Study of images is assuming greater prominence in the Australian curriculum for English as it is in the wider communicative environment. From Year 4, children are expected to ‘build a vocabulary to describe visual elements and techniques’, beginning to understand ‘how these choices impact on viewer response’ (Commonwealth of Australia, 2012). Whilst in previous times children responded personally to stories (Christie & Derewianka, 2008), they must now analyze character development and plot tension’ (Commonwealth of Australia, 2012). These content descriptions are coupled with a new emphasis on choices in images, such as framing, point of view and salience (Commonwealth of Australia, 2012). The power of picture books communicates through the interplay of words and pictures—what Lewis (2010) calls ‘interanimation’. Discussion of ‘how’ authors and illustrators make stories exciting, moving and absorbing and hold readers’ attention’ (Commonwealth of Australia, 2012) now need to consider the contribution of images to a reader’s interpretive stance. This places teachers and children in a new analytical role, orienting them towards the ‘how’ of literary craft rather than just the ‘what’ of their story worlds. In this context, children’s enjoyment of ‘the total world of the story action’—what is often called the ‘diegesis’—(Bordwell & Thompson, 1990: 56, and see Genette, 1980) becomes a limited, if important, aspect of literary appreciation.

The shift appears to involve the following: when readers reflect on an artist or author’s choices for meaning, they move from literal and inferred understanding of the ‘diegesis’ (what happens in the story) to exploration of semiosis (‘how’ this world is created in images and language). Attention to technique leads on to interpretation and explanation of composers’ interests and agendas (the ‘why’ of intentional- ity). For example, analysis of interactive choices in images will identify closeness or distance of a represented character to readers, describe the effect of this on contact with the character and interpret the broader significance of contrasts in closeness/distance for alignment with this character. Within a semiotic reading program, students explore images in principled ways, moving from labelling of an illustrator’s choices, glossing of their function on a page to interpreting their contribution to larger patterns of meaning. Moving up the levels of abstraction from material realization in form to the functional import of
the choice and from thence to the literary significance of patterns of choice is important in any semiotic knowledge program that hopes to yield benefits for literary study. Given the focus of the national curriculum in Australia, this must now happen a lot earlier in students’ school lives. In sum, semiotic approaches to reading of multimodal literature call for new kinds of knowledge and (for teachers) new kinds of know-how.

3. From knowledge to know-how

Teachers need access to knowledge by which they can help students climb from identification of forms to description of their function to interpretation of their literary significance. However, this kind of semiotic awareness is only part of the challenge facing teachers in school English. They also need to know how to teach this and then to assess what they have taught in students’ work. In this section of our paper, we introduce three principles in SF theory that proved helpful in addressing such challenges and substantially shaped workshop resources for teachers.

3.1. ‘Learning about’ principles of metafunctions, system and stratification

Early in his development of systemic functional theory Michael Halliday observed that certain language features tended to cluster together depending on their sensitivity to contextual parameters. Some features appeared sensitive to social roles and relationships (interpersonal), some to the field of activity (ideational meanings) and others to the channel of communication (textual). Halliday proposed a ‘hook-up’ between contextual variables and meanings and argued that our implicit awareness of the connection between context and meaning enables us to predict with a reasonable expectation of success ‘what is to come in the flow of discourse’ (Halliday, 1978). Our grammatics project drew on the notion of metafunctions to enrich teachers’ understanding of connections between higher order (e.g. contextual) features of communication and wordings that realize (or express) these. In our work with teachers, we suggested that each metafunction offers a different ‘lens on meaning’. When we ‘put on’ an ideational lens, we focus on what happens (who does what to whom, when, where, how and why). This includes what Genette (1980) calls the ‘diegesis’ but also inferential and symbolic meanings about experience that are important to literary study. Far less commonly explored in English is the ‘interpersonal lens’, which highlights the interactive function, how texts position us to feel, see and judge what people do and say. Exploration of narrative values will typically include interpersonal meanings. The ‘textual lens’ focuses on texture, balance and composition—an aspect of literary study is increasingly important when we consider literary craft. Our use of metafunctions with teachers enabled us to show how narratives represent experience (a slice of life in a possible world), enact relationships (a virtual interaction) and work semiotically (composition). In this way, we hoped to enrich accounts of meaning in English, exploring realizations of meaning in image and verbiage and linking these to higher order themes like suffering, loss and reconciliation in literature.

The notion of metafunctions is portable, with relevance to language and image (see Kress & Van Leeuwen, 2001/2006, for a telling extension of metafunctions to visual analysis). Our goal was to exploit ‘resonances’ between choices in one mode and semantically related choices in another, thus extending SF grammatics in ambitious ways. With internal focalization, for example, experience is rendered through the viewpoint of a character and readers experience events through his or her eyes. In a verbal narrative, authors manage this grammatically through resources like mental processes and projection of ideas. Visually, it is achieved through aligning of the viewer’s gaze with that of a given character (Painter et al., 2013: 137). Because of the functional basis of SF theory, there is enough commonal-
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A second principle adapted for workshops with teachers was the notion of system. Systemic functional theory is predicated on the assumption that resources for meaning are organized into contrastive choices activated in particular environments. They represent differences in meaning ‘that make a difference’. In the domain of interpersonal meaning, grammatical choices for Mood, Modality and Polarity enact options for interaction in the environment of the clause. Declarative Mood contrasts with Interrogative Mood and this is realized by the ordering of Subject and finite, which grammaticalizes different speech roles in distinctive ways. In images, in the interpersonal domain, we consider systems like Focalization (previously Contact), Social Distance and Attitude for enacting image-viewer relations. Understanding the distinctive either/or nature of choices in wordings and images was crucial to our work with English teachers. But, as will be seen, we needed to begin with systems that could be apprehended easily (that ‘either were or weren’t’, as Bianca put it). Clear oppositions with identifiable realizations were central to our work on systems in images. Teachers, like students, found it much easier to understand simple ‘embodied’ systems than more complex abstract ones, as will be seen.

Figure 1 presents three systems for interactive meanings in images presented in workshops, based on work by Kress & Van Leeuwen (2001/2006) and Painter et al. (2013).

**Figure 1** Interactive meanings in images (adapted from Kress & Van Leeuwen, 2001/2006)

Interactive meanings in images

- **Contact**
  - Focalization
- **Social Distance**
  - Intimate/personal
  - Social
  - Impersonal
- **Attitude**
  - Subjectivity
  - Objectivity
- **Involvement**
  - Detachment
- **Viewer power**
- **Equality**
- **Representation power**
- **Action Oriented**
- **Knowledge Oriented**

As we mentioned at the outset, it was crucial that teachers have access to a metalanguage that interfaced with higher orders of meaning. Our third principle—stratification—enabled us to show how formal, functional and discourse semantic patterns could be related to one another in a principled way. Like language, images cannot be tackled on one level of description. Whether in static bi-modal texts like picture book pages or dynamic multimodal texts like films, the notion of stratification enables us to distribute analysis across levels of choice. Whilst all choices are open to interpretation, a stratified analysis allows us to “determine just which material distinctions are to be considered ‘semiotically charged’ and which not” (Bateman, 2013: 56). In analyzing images with teachers, we began at the material level of form, identifying, for example, whether a character’s gaze was direct or averted, whether viewers were positioned above, at eye level or below depicted figures, and so on. We discussed the significance of these ‘charged’ options using the SF metalanguage. For example, a direct gaze implies contact with a viewer whereas an averted gaze invites observation. A close-up suggests ‘intimate’ interaction, whilst a ‘mid-shot’ communicates social distance and a ‘long-shot’ an impersonal connection. Within the system of focalization, gaze ‘as a character’ enables readers to experience what is seen through that character’s eyes whereas gaze ‘along with a character’ gives the viewer greater range, seeing what the character sees and also ‘more than the character sees’ (Painter et al., 2013).

Once teachers could identify formal choices like Focalization and describe their function, we were able to shift up a level and relate these to syndromes of meaning in the text. As John Bateman has observed in his study of film texts, “these signs are themselves subject to ‘orchestration’ in order to construct more complex and richly textured semiotic acts” (Bateman, 2013: 56). For example, in Anthony Browne’s book, *The Tunnel*, a combination of direct gaze, relative close-up and an attitude of anxiety portrayed on a young girl’s face aligns us with this character’s subjectivity. These coupled choices, however, contrast with later ones once the young girl has rescued her brother and they are reconciled. The combination of ‘over the shoulder’ view of her brother in close-up, along with the hint of a smile and overlapping backgrounds, previously quite distinct, point to the change in their relationship. Contrasting semiotic choices like this contribute to the larger theme of sibling relationships explored in this picture book. We hoped our adaptation of the principle of stratification would enrich teachers’ understandings of narrative, enabling them to shuttle from one level of description to another, exploring form, function and pattern in related ways, enabling students to relate material aspects of presentation to more abstract matters like literary themes. In fact, a literary reading depends on a reader’s attunement to syndromes of meaning which are made salient at the level of discourse semantics (Martin, 1992). At this point, our grammar necessarily opened out to a concern with discourse semantics.

### 3.2. Learning how to turn knowledge into ‘nous’

Following workshops on semiotic resources deployed in bi-modal texts, teachers had to turn ‘knowledge about’ images into pedagogic and assessment ‘nous’. There were two facets to our developing account of teacher know-how. The first was pedagogic. Teachers needed guidance on how to scaffold students’ analyses of images, enabling them to deploy a functional metalanguage for identifying, describing and interpreting images in picture books. In practical terms, this meant introducing teachers to strategies for exploring contrasts in images and ways of talking about the relevance of choices to narrative meaning. Beyond this, it involved teaching students how to integrate their analyses into written responses. As we predicted, learning to
synthesize the results of earlier analysis of images and their role in a literary composition was critical to successful work on text response.

The second aspect of teacher know-how we examined related to assessment. We assumed new levels of semiotic awareness would be revealed in teachers’ comments on their students’ written responses to picture books. What students wrote is the subject of a related paper (see Unsworth & Macken-Horarik, in press). In this paper we focus only on teachers’ judgements of students’ written responses and explore the comments made in interviews prior to and following classroom teaching of image grammatics. A semiotically-informed approach to assessment would rest substantially on a teacher’s ability to focus on the meanings of a text—whether the student’s writing or the text on which this is based.

Turning knowledge into know-how required attention to pressing preoccupations of the profession, and these related not just to images and their role in literary texts but to the work of teaching and the uptake of new learning by students. Keeping faith with key aspects of SF theory, these several preoccupations can be explored on two different dimensions: semiotic (the relationship between system and text) and social (the relationship between disciplinary practices in English to literacy repertoires of individual students). The vertical (social) dimension captures the tasks of English teachers in classrooms—mediating new kinds of knowledge and skill in classrooms for diverse individual learners. The horizontal (semiotic) dimension takes into account moves between semiotic instances (like picture books and all these contain) and resources for meaning (systems like Focalization, Social Distance and Ambience), amongst others. Both dimensions—semiotic knowledge and semiotic know-how—interface productively with the SF model of language in context (e.g. as outlined in Halliday, 1991) and are the focus of an earlier paper (Macken-Horarik et al., 2011).

Each point on our theoretical compass was integral to development of teacher knowledge and know-how in a new curriculum environment. We wanted teachers to:

(i) learn about semiotic resources at different levels of description (drawing on notions of system and stratification);

(ii) learn about narratives and integrate semiotic analysis with interpretation of higher order meanings in narrative (drawing on the interpersonal metafunction primarily);

(iii) learn how to expand students’ understandings and uses of semiotic resources in multimodal texts (with a focus on visible pedagogy);

(iv) learn how to assess the effect of semiotic choices in multimodal narratives (with a focus on images in bi-modal texts at this point of the project).

Figure 2 images each point on our theoretical compass.

The ‘compass points’ allowed us to hold each aspect of knowledge and know-how in relationship. Learning tasks in left-hand quadrants of the figure (‘west’) relate to ‘knowledge about’ images and narrative. Tasks in right-hand quadrants (‘east’) relate to ‘know-how’—pedagogic and assessment nous. Numbers on the figure recreate the sequence of learning activities undertaken after initial interviews with teachers—the steps teachers took with students in the course of the intervention phase of the project.

4. Characterizing teachers’ initial diagnoses in interview 1

In order to understand development of semiotic expertise, we needed to benchmark teachers’ starting points. We did this in interviews about two students’ responses to questions about The Great Bear, by Libby Gleeson and Armin Greder (1999). This is a text about a cruelly-treated dancing bear who spends her days in a cage and her...
nights performing for a circus crowd. The crowd taunts her as she dances, poking her with sticks or throwing stones. Eventually the bear decides to stand up for herself, with momentous consequences. Students were given 45 minutes to read the text and complete responses to two general questions and specific questions about double pages such as the one in figure 3.

Questions 2c-2f asked students to reason and write about image-verbiage relations.

2c) How is this drawing linked to the words on this page?
2d) What is the effect of the repeated patterns in the words on this page?
2e) How is the drawing of the bear connected to the coloured picture of the people?
2f) Why are we looking down on the people in this picture?
2g) Why are the people's eyes important to what the story is about?

It is clear that these questions invited students to deploy semiotic awareness in answering each question. For example, question 2c focuses on the relationship of the faint line drawing to the dominant coloured picture on the same page. Question 2d asks about the effect of repetition of words in the villagers’ chant and question 2e explores the relationship of the drawing of the bear to the coloured picture. Question 2f calls for interpretation of visual point of view and question 2g asks readers to reflect on the significance of the depiction of people’s eyes for the story as a whole. Importantly, the order of questions shifts from experiential observations to semiotic reasoning—something all respondents acknowledged they found challenging.

Following the prompt, all 27 teachers in our study were asked to select two samples of response to The Great Bear and to discuss these during the interview with researchers. All teachers were asked to answer the same set of questions focussing on what their students had written and what they thought were strengths and weaknesses in these responses. The results
were telling. In spite of national curriculum calls for greater attention to images and to domains of meaning like point of view, not one of the teachers in interview 1 said they felt equipped to teach it. In ascertaining levels of semiotic awareness amongst teachers, we needed to draw on different data sets: the picture book itself, students’ written responses to this and their teachers’ assessments of two of these during interview. We were attempting to discern through interview data which aspects of meaning in the picture book were picked up by students and which of these teachers could recognize. In spite of the highly mediated nature of knowledge, findings from interviews were startling in their commonality. Almost all teachers ignored images in responding to students’ readings and their assessments of student responses relied on what they ‘knew’ of students’ earlier work and their assumed levels of competence. Few gave any attention at all to what students had actually written. Our coverage of interviews with two primary teachers of Year 4 English in New South Wales (Bianca) and Victoria (Boyd) is summarized briefly under headings related to each of the four points on our ‘theoretical compass’. Telling comments from each are highlighted in bold.

4.1. Semiotic resources (image)

Boyd opened his interview by acknowledging the importance of ‘looking at the connections between pictures and the written word’ but demonstrated limited awareness of this. When pressed about this, he explained that he had to ‘go back and start from scratch’ with his students as they didn’t ‘have the metalanguage’:

**Boyd:** So we're looking at the connections between the pictures and the written word. We are looking at things like - we've actually got to go back and start from scratch with the majority
of our kids because they don’t have the meta-language. Hence, that’s why we are putting an emphasis on going back and starting with the Toolbox.

Bianca too demonstrated minimal awareness of images in her commentary. She referred to ‘stuff about social distance and the demand and eye contact’ (introduced briefly in the previous year’s workshop by Len Unsworth) but acknowledged she hadn’t taught these ‘as yet’.

**Bianca:** I suppose when we started multimodal last year, that was probably the first time in my teaching experience that we had been encouraged to analyze visual texts that way. And, I suppose the stuff about social distance and the demand and the eye contact and all that sort of thing - that hasn’t come into my teaching as yet this year.

In sum, as far as knowledge of visual choices and how they worked, both teachers displayed minimal awareness. Any references to images represented a gesture towards the field, as in Bianca’s comment above, rather than systematic semiotic awareness.

### 4.2. Disciplinary practices (narrative)

In the first interview, we asked teachers to tell us how they tackle multimodal narrative in classes. Boyd reported that he approached these in a similar way to verbal narratives, emphasizing personal response to both literal and implied meanings.

**Boyd:** What I expect from the students is to be able to comment and reflect on what the writer has to say from their perspective. So it’s about really delving in and reading between the lines and making connections between the different things, like, for example, the pictures, the written word, things like that. Basically when I work with them, we always come back to: ‘What is the writer saying? What is he literally saying and what are the implications after that?’

Bianca appeared more goal-centred in her work on narrative, stressing the need to attend to the purpose of the task in any work on grammatics:

**Bianca:** Often we’ll read a text to look at the features of good writing. Sometimes it might be something simple like paragraphing or speech marking. Other times it might be a word choice or it might be like with Paul Jennings, elaboration, or with Roald Dahl, description writing or humour. It just depends on what the purpose is.

For both Boyd and Bianca, work on narrative focussed on comprehension and, where analysis occurred (as it did in Bianca’s class), it was limited to verbal language. There was no evidence that either teacher related images to tasks of narrative interpretation.

### 4.3. Individual Repertoires (teaching)

Later on in the first interview, we asked teachers about how they would approach images in teaching—both analysis and text response. Boyd referred to his employment of prediction strategies typical of constructivist approaches to reading:

**Boyd:** Well, in general, I will take the cover and maybe I will get the title off there, and just give the picture on the cover and let the kids sort of - - you know ‘What do you think the book is about? Make a prediction. What do you think, what do you think, what do you think? And then ‘Why?’

Whilst Boyd preferred to approach images on a book cover as a guessing game, Bianca was unsure about how she would approach teaching *The Great Bear*:

**Bianca:** I don’t know. I mean, it’s a beautiful book and the language in it is very brief and short and sharp. And, the bear is so disempowered and the people like the traders are so awful but I would probably have to sit down and have really good, you know, think and possibly chat about how I would teach it best.

In anticipation of later workshops on written response genres, we asked each teacher how they currently approached teaching of response. Boyd did not respond to the query but Bianca claimed her classroom work concentrated on ‘nuts and bolts’ of written responses, like correct spelling and use of ‘best words’.
Bianca: So, for some children I need to point out that ‘I want you to write me a sentence, you know… I want you to use the best words you can think of’ and some of them get very caught up in the nuts and bolts of writing—whether it’s spelt correctly or whether to take a new line here and all that sort of nonsense. I hope as the year goes on that I can lead them into some better skills perhaps.

Prior to the workshops, Bianca expressed minimal expectations of students in writing. In fact, she focussed on the difficulty of getting well written responses. Both she and Boyd approached teaching of response in minimal or non-interventionist ways. It appeared that teaching students to write about literature was an undeveloped aspect of their expertise.

4.4. Multimodal texts (assessment)

When each teacher was asked to comment on students’ responses to questions, we noted distinctive patterns in their stance. Boyd commented on responses by his student, Maria, in light of what he knew of her personally, rather than in terms of what she had written (see figure 4).

Sections of interview dedicated to reading the question or student’s words are underlined.

Boyd: For example if you look at 2c: How the drawing is linked to the words on the page, she said: It’s linked to the words because the people are playing instruments and the words are telling us about the sounds that they make. So she linked the sounds to the words and that kind of thing. She went on to 2d and spoke about the effects of the repeated patterns because the cymbals are clashing many times. So her knowledge of music is helping here.

Bianca too relied on what she knew about her student, Jane, to assess her achievement (see figure 5).

Bianca: Because, straight away without any prompt, without any idea she looked at me and she kind of mouthed the words ‘Is it because
we’re the bear?” and I gave her the thumbs up. I wanted her to keep it to herself but I feel that the children around her thought ‘Oh, Jacqueline’s worked it out’, because they know that she’s bright. So, I think that, even though I never explicitly taught her the skills of trying to connect image and text and trying to analyze an image, she innately knew that. She worked that out through just being a competent kid.

Both Bianca and Boyd reasoned about what each student had achieved on the basis of extrinsic knowledge rather than on the basis of what they read on the page. In fact, lack of attention to images (and how they worked in picture books) paralleled lack of focus on students’ writing. Both teachers appeared to ‘split off’ from semiosis (Macken-Horarik, 2006a, 2006b). More often than not, they adopted an anxious tactic of ‘find something to say’ when pressed for diagnostic comments on students’ writing. Where they did make comments on these, they focused on comprehension, mirroring diegetic readings made by students (Unsworth & Macken-Horarik, in press). Attention to words and images in the picture book and their relevance to higher order meanings was virtually non-existent in first interviews. All teachers had much to gain from a semiotically-principled grammatics.

5. Introducing teachers to a semiotically principled grammatics

The first two-day workshop in 2013 introduced participants to three lenses on meaning (metafunctions) and then to detailed focus on interpersonal meaning. We aimed to make this accessible by linking choices to probe questions about narrative technique. For example, we related gaze to the larger probe question for focalization—Who sees?—and dialogue to the question—Who speaks to whom and how? We related colour palette to the ‘ambience’ of a text—What is the mood or atmosphere? In relation to stratification, we showed teachers how to make motivated connections between form, function and patterns of meaning across literary picture books like Hyram and B by Brian Caswell and Matt Otley (2003), The Lost Thing by Shaun Tan (2000) and Way Home by Libby Hathorn and Gregory Rogers (1994). As far as system was concerned, we paid most attention to interactive meanings including Social Distance, Focalization and Colour (ambience). In all activities, we made connections between choices in systems and their contribution to notions like characterisation, setting and theme.

Following demonstrations of visual grammatics in picture book analysis, workshop participants collaboratively planned for teaching in classrooms. The final day of workshops shifted from ‘knowledge about’ to ‘know-how’. We stressed the importance of strategies like modelling, small-group analysis of images and discussions of effects of visual choices in texts. We encouraged teachers to translate knowledge into accessible metalanguage for their students, making use of contrasts in choices where possible to aid easier analyses of images. We assumed that if teachers could shuttle between form, function and pattern in motivated ways, this semiotic knowledge would ‘turn up’ in students’ responses to bi-modal texts and become evident as signs of teacher (and thus student) learning. In weeks following the first workshop, teachers implemented visual grammatics in different ways. The focus in this period was on analysis of images and becoming adept at recognizing, naming and glossing image structure and function and discussing the effect of repeated or contrasting choices for narrative meaning generally.

Following several weeks of image analysis, teachers returned for a two-day workshop on text response. Our intention here was that students would now be in a stronger position to integrate analysis into written responses to bi-modal texts. In these two days, we taught teachers about the structure and features of response genres like book review and thematic interpretation (Macken-Horarik, 2006a, 2006b). Workshops taught teachers about the stages of book review (Context ^ Text Description ^ Judge-
ment) and Thematic Response (Text Evaluation ^ Text Synopsis ^ Re-affirmation of Evaluation). In addition, we covered language features of response genres such as use of universal present tense, and ‘symbolic verbs’ (e.g. ‘represent’, ‘show’, ‘symbolize’, ‘reveal’), which are crucial to literary interpretation. Primary teachers who taught response genres like book or film review had greatest impact on students’ semiotic understandings, enabling them to integrate image analysis into extensive written responses.

Following this second workshop and a new period of implementation of the grammatics (on average from 4-6 weeks), teachers supervised and assessed students’ written responses to questions on The Tunnel. These questions paralleled those on The Great Bear. The Tunnel (Browne, 1989) is a powerful story about sibling rivalry and how two children overcome this as a result of a traumatic incident. Rose and her brother, Jack, are constantly arguing and bickering, which leads to their mum ordering them to spend the day together playing outside in an attempt to reconcile. Initially, Rose sits reading her book while Jack explores and ends up crawling into a mysterious tunnel. When Rose urges him to return, there is no response and she is forced to follow him into the tunnel and to rescue him so they can overcome their differences.

Once students completed responses to questions about The Tunnel, we interviewed teachers about the work of two selected students. Wherever possible, we asked them to comment on the same two students whose work they had selected for interview 1. In this second interview, we were looking for evidence of changes in teacher knowledge and know-how. We pursued these in light of our guiding ‘compass points’ and the goals of our project. For example, we hoped to find evidence of a more integrated approach to narrative, an understanding of salient visual systems and a capacity to make connections between levels of description. On the know-how aspect, we looked for signs of semiotically-informed teaching of bi-modal texts and for greater attention to students’ writing in their assessment of their responses.

6. Changes in teacher knowledge and know-how

While the data from initial interviews could not be benchmarked to goals and principles of our project, following the implementation period, we were in a position to explore shifts in teachers’ knowledge and know-how. Learning related to key aspects in each quadrant of our figure could be explored along a cline, with shifts in awareness benchmarked against teachers’ different starting points. In this way we could capture progression towards greater semiotic awareness without having to declare this as either absent or fully achieved. The end point on each cline was related to the goals of our grammatics project and the entry point was related to teacher starting points as determined in interview 1.

We evaluated changes on each of the four dimensions of our model firstly by exploring differences between answers to similar questions in each interview. For example, we asked both Boyd and Bianca what they had been doing in relation to bi-modal narratives and then summarized differences in their approach in light of our aims. We were then in a position to benchmark changes along a developmental continuum from ‘unrelated’ to ‘limited’ to ‘integrated’ (our goal) which indicated degrees to which teachers were relating analysis of images to narrative interpretation. A similar process was undertaken with respect to the other three aspects of our developmental framework, as we will show. We draw on interview data to illustrate trends for Bianca and Boyd and then summarize changes in expertise in a synoptic figure.

6.1. Disciplinary practices (narrative)

Boyd opened the interview with enthusiastic endorsement of the value of work on images. He reported working with his Year 4 class on three
picture books, but that he had also incorporated other ‘skills’. Boyd was more constrained than other English teachers in his cohort because decisions about class texts were made by all Year 4 teachers in his school.

**Boyd:** We’ve looked at *The Lost Thing*. The kids want to do more work on *The Tunnel*. One of the kids said, ‘Can we use that for our literary book for the next two weeks?’ and I said ‘Look I will have to find out. More than likely we will because all the materials are there,’ but … we set up a kind of a timeline of what we would like to do by the end of the year. *So, we’ve incorporated Fantastic Mr Fox into our plan and we’re doing the multimodal work but bringing in all the other skills because the kids, even in the little pictures that they’ve drawn of the three farmers.*

In spite of his enthusiasm, however, there was little evidence that Boyd’s work on images was related to what he sometimes called ‘underlying narrative meaning’. His development on this cline appeared limited, preoccupied with general considerations and lacking any interface with material realizations of images or their connections with higher order meanings. By contrast, Bianca engaged substantively with the role of images in narrative. She spent weeks on texts like *Way home*, *Hyram* and *B* and their deeper themes.

**Bianca:** …the themes I kept coming back to were like love or loss or family or need for a sense of belonging, so we stressed the need for a sense of belonging because all three books were sad. *They nearly all picked up on one or the other of those. So, they are aware of the fact of theme in terms of the big, sad human issues.*

Bianca also encouraged students to identify features in either images or language that grabbed their attention and to explain why these were significant. The move towards integration of analysis into interpretation was crucial here. This became clear in Bianca’s report on teaching children to write a middle paragraph in a book review.

**Bianca:** In the second paragraph they were allowed to pick up features of either the images or the language that grabbed their attention—whether it was characterisation or humour or repetition. And then they would find something that grabbed their attention and the bit I had to draw out of them was why? I told them, ‘Now, you have to explain why that’s significant or a part of the book that’s effective’.

By concentrating not just on what was there but on ‘why’ it might have been there, Bianca demonstrated that she was now able to relate visual analysis to exploration of themes of a narrative. A key feature of an integrated approach to narrative is the practice of relating images to interpretation of their significance for higher order concerns (e.g. themes of loss and sadness). In this respect, Bianca’s work differed from Boyd’s, moving from identification of choices (what) to exploration of their symbolic meaning (why).

Her dual focus on visual analysis (using tools like Social Distance) and on production of written responses (using the three paragraph structure of a review) required her students to identify choices and reason about a composer’s intention and then to integrate these into an extended text response. Boyd had yet to undertake classroom work on text response and this severely limited his capacity to relate image analysis to narrative themes, except incidentally in class discussion.

### 6.2. Semiotic resources (image)

Boyd claimed that he had analyzed Colour and Salience with his class, although he grouped the latter under interactive meanings whereas it is typically handled under textual meanings. His grasp of technicality was not as secure as Bianca’s. Once again, we highlight his comments that are germane to changes in knowledge and know-how.

**Boyd:** Well, the kids looked into the image. They have become very good at - - as one of the kids said ‘it’s not ambience, it’s ambience (French accent) she really liked the word. So the kids have
been involved with the vibrancy and warmth of the pictures. ... Vibrancy, warmth and familiarity...

Although he was clearly now able to identify choices within Ambience (Vibrancy, Warmth and Familiarity), when asked specifically about how he had taught these, Boyd tended to list terms rather than exemplify or explain these systematically. Neither was attention to text-wide patterns of meaning in evidence:

Boyd: One of the things is that there's quite a few kids who have become confused in a sense when we're talking about the warmth and the warmth of the colour and it is warm and cool again (on other pages of the picturebook). So trying to explain to the kids at the lower end of the spectrum, a lot of them will say 'Yeah, I've got it' but they haven't got it.

Boyd's limited semiotic knowledge appears to have led him to a dismissive attitude to 'lower spectrum' kids' and their intelligent questions about changes in colour over the course of a picture book. It reveals misrecognition of their tacit awareness that colour contrasts are significant. Bianca, by contrast, demonstrated knowledge of three systems within image grammatics: Ambience, Contact and Social Distance. In the following extract, she reports how she taught her students to analyze Social Distance, drawing on the distinctive contrasts embodied in this system of choices:

Bianca: They were very happy to learn about Demand and Offer because it's a nice simple visual, that either is or isn't. It was something they could easily grasp onto. We looked at Social Distance. They quite liked that as well. They could relate to the fact that people you know intimately, you see up close and get into their personal space. People you know socially have that bigger physical distance. And if people are distanced from you, you have little way of understanding their emotional state.

Bianca's use of systematic differences was important for her children's analysis of images. She was explicit about tools of analysis and it was clear that her students were keen to demonstrate their learning, showing transfer of knowledge to new texts.

Bianca: And of course, every time we see a picture in any aspect of the classroom they want to let me know about Social Distance again.

A key feature of systematic meta-awareness is attention to systems of choice—both realizations in form (e.g. colour palette, shot size) and higher order significance (e.g. invited relationship to viewers). Whilst Boyd was vague about these options, Bianca named and exemplified these precisely, commenting on their effects on meaning more generally. She thus demonstrated awareness of a motivated connection between form (realization), function (key choices in a system and their role) and pattern (effect or significance for meaning). The notion of stratification and system was crucial here. However, it was also clear from the interview that Bianca first had to ‘metabolize’ understandings before she could teach them to children. Boyd remained at the stage of observant (rather than systematic) comments on colour and other choices.

6.3. Individual Repertoires (teaching)

Boyd claimed that he hadn't yet any work on text response but concentrated on class discussion of pictures, using small-group teaching to develop expertise in students.

Boyd: So we would actually sit in different groups and give them big sheets of paper. After we spoke about what they were, they went and analyzed pictures came back as expert groups and shared with the group and then the other kids would say ‘They maybe left out this or maybe left out that’. So we covered all bases.

Although Boyd mentioned that children shared insights about pictures, the relationship between his semiotic knowledge and teaching appeared unclear. Bianca taught her students how to analyze systems like colour and then
how to write a book review incorporating a paragraph in which they included comments on features. When asked whether she had taught the stages of review, Bianca was explicit about these:

**Bianca:** Oh, definitely—Summarise, Features, Recommendation. And then I allowed them to select a picture book from the library and they would bring it to me first and we would be over at the library and I would say ‘You don’t want too many words, you will be there forever. You don’t want no words, because then you have to apply it to a different degree of understanding.’ So we would find something we agreed was suitable and then they worked with a partner. Some of those reviews were hilarious and a lot of them were really good. They showed the skills of being able to recognise the value of colour, which was one that they felt pretty comfortable with.

Like Boyd, Bianca had much more to say in the second interview. But Bianca was able to talk in detail about work on text response genre. She explained how she used the grammatics toolkit and how it helped students integrate analysis of images in writing. The rhetorical stages of ‘Summarise’, ‘Features’ and ‘Recommendation’ enabled her students to produce much longer texts, publish them for others who wanted guidance on the value of a picture book for younger readers (displayed in the library) and then adapt the genre to evaluations of short films. Her students exceeded her earlier expectations—moving from ‘a few sentences’ to three paragraph reviews.

A key feature of semiotically informed teaching is evidence of a transparent relationship between knowledge about images or the structure of text response and teaching strategies employed. The clarity of Bianca’s account of what she taught in image grammatics suggests a semiotically informed approach to teaching. Although Boyd demonstrated a schematic understanding of Ambience, it was not clear whether he taught these explicitly or hoped students would generate understandings without scaffolding. The relationship between knowledge and know-how remained opaque.

### 6.4. Multimodal texts (assessment)

Both teachers demonstrated shifts in their approach to assessment of students’ readings, with Boyd making less significant advances than Bianca on this front. One of the final questions about The Tunnel related to the following image of the two children, following their return home after the traumatic incident in the forest.

![Figure 6](image6.png)

**Figure 6**

Rose and Jack after their experience of the tunnel

Question 4 invites an explanation of focalization: Why do you think the last image is shown as it is? An extract from Maria’s response is included below as figure 7.

Boyd was asked to comment on what Maria had written; pressed to provide detail on what he claimed about her knowledge of Social Distance, he replied:

**Boyd:** I think she’s focusing on the picture itself in that in all the other images were separate. They always spoke about the boy doing this and the girl doing that, and one was there and one was there and now they’re physically together as well as emotionally together.

Boyd adopted a diegetic rather than a semiotic orientation to this task. Like Maria, he in-
interpreted the thematic significance of change in images but did not comment on composition. If there was a hint of a semiotic orientation, it remained superficial—a collection of bits and pieces rather than awareness of the contribution of image and verbiage to literary meaning. Boyd moved from a tactical response in interview 1 to a more thoroughly diegetic one in the second.

Bianca was asked to comment on what Jane had achieved in response to the final image, reproduced as figure 8 below.

**FIGURE 7**
Maria’s response to question 3c and 4 about *The Tunnel*

3c. I think the last word on the second last page, *together*, is printed by itself and in bold because the girl and boy need to fight and do many things separately. But now since they had found the tunnel they seem to bond more.

4. I think the last image in the book is shown as it is because it shows how different they are even though they are alike.

**FIGURE 8**
Jane’s response to question 4 about *The Tunnel*

*The last** *Letter* *on the page* (together) *is printed on the last line by itself* so people will notice it more and think about it.

4. I think the last image on the page in the book is shown as it is because they are now together not arguing and they are looking at each other with a smile and they are really close to each other.
point in writing to diagnose strengths and weaknesses in Jane’s response. In contrast to her earlier focus on the student’s ‘competence’, she was now focussing on the writing, getting the drift in Jane’s argument and highlighting next steps necessary in teaching (in this case, learning to incorporate a term like Contact and to elaborate on its function in this image).

A key feature of a semiotic stance is attention to the text itself and its meaning making choices. This applies as much to the source text—the picture book—as it does to the students’ responses to this. A semiotic stance incorporates attention to story information and to students’ comprehension of the story line in a picture book (diegetic) but it also attends to the constructedness of images and their relationship to verbiage in the text. Overall we observed a shift towards a semiotic stance in Bianca’s approach to assessment. Her reasoning about development was based on what the child had written rather than on what she ‘already knew’ about her. Boyd remained diegetic in stance, with occasional references to what he thought children ‘knew’. Where he shifted from his earlier tactical stance, it was to focus more on comprehension than on the constructedness of their texts.

What can we say of development in knowledge and know-how for our two teachers? Figure 9 positions each teacher on clines related to project goals and interview analysis.

Although an interview cannot provide exhaustive evidence of changes in teacher knowledge and know-how, it offers some purchase on teachers’ capacity to deploy expertise in ‘talk about text’. The developmental clines provide a way of plotting changes in teachers’ semiotic awareness and to relate what they ‘knew’ about images and their contribution to narrative meaning and to what they could now ‘do with what they knew’ in teaching and assessment. Interview responses by Bianca and Boyd were not only important in their own right but also illustrative of trends in teacher growth across our larger cohort. Many of the 27 teachers we interviewed revealed development similar to that demonstrated by our two focus individuals. The knowledge deployed by Bianca and Boyd was revealed in an authentic task of student writing assessment. In this way, Bianca and Boyd demonstrated what they (now) knew in relation to what they could (now) do. Clines like those

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**FIGURE 9**

Benchmarking changes in Bianca and Boyd's knowledge and know-how

<table>
<thead>
<tr>
<th>Disciplinary Practices (visual grammatics in narrative study)</th>
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</thead>
<tbody>
<tr>
<td>How is grammar related to narrative if at all (in second interview)?</td>
</tr>
<tr>
<td>Unrelated</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Semiotic resources (images)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What kinds of semiotic awareness is evident in second interview?</td>
</tr>
<tr>
<td>Superficial awareness</td>
</tr>
<tr>
<td>Boyd</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students’ Repertoires (scaffolding semiotic knowledge)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How does semiotic knowledge inform teaching, if at all by second interview?</td>
</tr>
<tr>
<td>Semiotically uninformed</td>
</tr>
<tr>
<td>Boyd</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Multimodal Texts (assessment of students’ texts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What stance do teachers adopt in assessment of students’ written responses?</td>
</tr>
<tr>
<td>Tactical</td>
</tr>
</tbody>
</table>
above provide indications of starting points and resting points in these teachers as they undertook the journey into the new territory of multimodality.

7. Preliminary Conclusions

We began this paper by asking two questions about how to develop teacher knowledge and know-how in an era of multimodal literature and new curriculum demands: What kinds of knowledge will enable teachers to foster understanding literary concerns like theme and characterization and the contribution of images to these? Does systemic functional theory have something to offer in this enterprise? Answering the second question requires taking account of the first. Now that primary English teachers will undertake specialized work on narratives, they must have access to a framework that enables them to build this on the back of analysis of images and language. Any grammatics ‘good enough’ for school English must inform disciplinary practices (related to narrative as well as other domains), enhance individual repertoires, engage with semiotic resources (like images) and apply to a range of multimodal texts. It was these disciplinary compass points orienting our adaptation of systemic functional theory, and early results of the project are encouraging, providing evidence of significant if varied growth in teachers’ orientations to narrative meaning and increased levels of meta-semiotic awareness generally.

In relating the theory to narrative interpretation, the principle of stratification proved indispensable. Whilst the national curriculum refers to the need to analyze texts at text, sentence and word levels of description (Commonwealth of Australia, 2009: 7), just how these levels are to be inter-related is not made clear. All teachers need principled ways of construing motivated connections between forms (whether linguistic or visual), functions and patterns of meaning. Each level of description is a means of ‘climbing’ from lower level (material) choices (e.g. for gaze) to higher level (abstract) arrangements and patterns (e.g. alignment with characters). Our adaptation of the SF model of stratification enabled teachers like Bianca to do this kind of work with Year 4 students, showing them how resources for Social Distance worked formally, functionally and rhetorically. Perhaps because he was not able to access this heuristic of stratification, Boyd did not appear to link formal choices like Ambience to higher order meanings of mood or feeling, even though he could name the systems within Colour at interview. Making motivated connections between these levels of description deepens the interpretation of literature, enabling students to step up and down the ladder of form, function and pattern in texts.

From the point of view of semiotic knowledge, it was clear that teachers needed access to a rich model of meaning. For many teachers in our group (including Bianca and Boyd), the notion of metafunctions remained at the level of abstract and interesting ‘information’. The lenses on meaning did not become part of their technical lexicon. By contrast, the SF principle of system was crucial, enabling Bianca to demonstrate meaningful contrasts in choices in different domains of meaning (e.g. Social Distance, Ambience and Focalization). Without access to systems of choices within images and typical material realizations, teachers like Boyd tend to list technical terms, without making options for meaning clear for students. Of course, whilst Bianca made use of ‘either/or’ choices so accessible in Social Distance (‘it either is or it isn’t’), some semiotic systems are more complex, with diverse realizations, hard to ‘embody’ in experience. Few teachers in our group took up more abstract systems such as Attitude with confidence. It is an open question whether teachers in Year 4 would be able to teach students about more complex systems in visual semiotics, but early signs are promising, if work on interactive meanings is anything to go by. Our project re-
minds us that we should not underestimate the capacity of teachers or students.

The project out of which multimodal work grew aimed to develop a grammatics ‘good enough’ for English teachers in diverse settings and with different class groups (see Macken-Horarak et al., 2011). Our toolkit needed to be not just theoretically principled but practically useful to teachers at different starting points and, as we discovered, different resting points. What was powerful was to see teachers like Bianca shifting their stance from tactical and di-egetic in interview 1 to semiotic in interview 2. Attending to what students had written rather than what she personally ‘knew’ about them was a significant development in her semiotic stance. Whilst Bianca was able to translate her hard-won semiotic understandings into pedagogy—to find students moving from ‘a few sentences’ to extended three-paragraph reviews—, this was not the case for Boyd. In fact, the work was new for all teachers in the group. In her interview Bianca observed:

Bianca: So my point is that all this focus on these various aspects of the images is new territory; it’s new territory for teachers; it’s new territory for the kids.

It is early days for many primary teachers who must now teach multimodal literature drawing on a meta-language that is principled and usable such as that available in SF theory. But our project has shown that teachers can take on such a toolkit and apply it with productive benefits for their own knowledge base and for that of their students. A theoretically rigorous and extravagant model of meaning making such as SF theory has much to offer in this enterprise but it must be adapted if it is to meet teachers where they live in 21st century classrooms.

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New challenges for literature study in primary school English: building teacher knowledge and know-how through systemic functional theory


