

## TOWARDS A READING BASED THEORY OF TEACHING

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We are arguing that elaborated orientations, and even more elaborated codes are the media for thinking the ‘unthinkable’, the ‘impossible’ because the meanings they give rise to go beyond local space, time, context and embed and relate the latter to a transcendental space, time and context. A potential of such meanings is disorder, incoherence, a new order, a new coherence.

Basil Bernstein (1990:182)

The goal of this paper is an ambitious one, and perhaps presumptuous as well, as I’m going to argue that reading is the basis of what we all do as teachers and students, and that we need to be developing systematic approaches to teaching reading as a core element of our practice. All of us in the language education and functional linguistics communities are now talking about texts, and about teaching the language of spoken and written texts, but far less attention is given to the fact that we learn the language of written texts by reading them. Many of us are working on writing, but the function of writing in school and university courses is primarily to demonstrate what we have learnt from reading. So I’m going to suggest that if we wish to explicitly address the learning needs of our students, then we need to make a significant shift in our teaching practices at all levels of education. This paper outlines a theoretical framework in which we might consider how to do so.

The title of the paper is taken from Michael Halliday’s 1993 article, *Towards a language-based theory of learning*, in which he outlines the stages that children acquire each domain of the language system, from their very first infant signs to the grammatical metaphors of technical written discourse. Halliday contends that learning language is “the foundation of learning itself”, that “the ontogenesis of language is at the same time the ontogenesis of learning” (p93). In this paper I will focus on learning in school, and argue that reading is its foundation. I will relate learning in school to Bernstein’s discussion of elaborated codes, quoted above, and argue that such elaborated codes are acquired through reading. I will also suggest certain ontogenetic stages in which reading

skills are acquired in school, but I will frame this learning sequence within two other social semiotic timescales: firstly the evolution or *phylogenesis* of schooling as a cultural institution, and finally the unfolding or *logogenesis* of its discourses, including the learning interactions in which reading skills are acquired.

The model that emerges at these three levels is grounded in the work of many colleagues, in particular Michael Halliday on spoken and written ways of meaning (1989), Jim Martin on genre, register and discourse analysis (1992, 2006), Christian Matthiessen on grammatical syndromes and models (Halliday & Matthiessen 2004), Clare Painter on language learning in the home (1998), Geoff Williams on reading in the home (1999), Joan Rothery on scaffolding writing in school (1996), Wendy Cowey and Brian Gray on scaffolding reading (Rose, Gray & Cowey 1999), Frances Christie on curriculum genres (1999) and Basil Bernstein on the social relations of education (1990, 1996), and in my own work training teachers around the world in the literacy methodology *Learning to Read: Reading to Learn* (Martin 2006, Martin & Rose 2005, Rose 2005a&b, 2006a). This methodology was initially developed to address extremely poor education outcomes for Indigenous students in Australia (Rose 1999, 2004a, Rose, Gray & Cowey 1999, Rose, Lui-Chivizhe, MacKnight & Smith 2004), but it has since proved applicable to all educational contexts, from early school years to university. It has been consistently shown to accelerate literacy development at twice to four times expected rates, at the same time as it closes the gap in any class between the most and least successful students. We have developed an inservice teacher training program for the pedagogy that is now being offered in schools and universities across Australia and internationally (Rose & Acevedo 2006a&b). Development of the theory thus integrates action and reflection: observations in practice continually enrich and modify the theory, which in turn continually refines and expands the practice.

## 1. Phylogenesis

To grasp the evolution of education as a cultural institution, and so to imagine ways we might redesign its outcomes, we cannot do better than Basil Bernstein's comprehensive model of what he calls the *pedagogic device*. Bernstein's is a social semiotic theory, that describes how systems of meaning are reproduced and transformed across generations.

At its most general level, Bernstein distinguishes three sets of organising principles or ‘rules’, that operate in any education system:

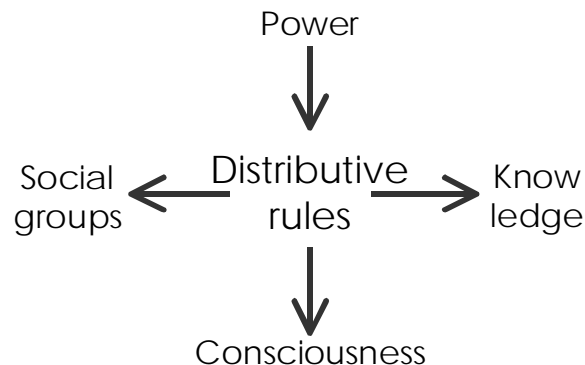
*Distributive rules* regulate relationships between power, social groups, forms of consciousness and practice...who may transmit what to whom and under what conditions.

*Recontextualising rules* regulate formation of specific pedagogic discourse... pedagogic discourse selects and creates specialized pedagogic subjects through its contexts and contents.

*Evaluative rules* constitute any pedagogic practice...the key to pedagogic practice is continuous evaluation...evaluation condenses the meaning of the whole device (1996:42-50).

Bernstein’s 1996 diagram of distributive rules places *Power* at the top as their informing principle, with *Social groups*, *Knowledge* and *Consciousness* as the sites of their trajectory, schematised in Figure 1.

Figure 1: Distributive Rules (after Bernstein 1996)



To *Power* can be added the two principal economic bases from which it derives in modern societies: the control of material economic production, and the control of production, distribution and reproduction of symbols, or symbolic control. For Bernstein these contrasting economic bases characterise two fractions of the middle class, the old middle class with its base in industrial production and the new middle class with its base in symbolic control, people like ourselves. There is a continual struggle between these fractions for control of the pedagogic device. In contemporary post-Fordist economies, it is in the interests of industrial producers to have an educated workforce, so they are currently attempting to force schools and universities to educate the working class

by means of increasing state control, including state mandated testing regimes that reveal the extent of schools' failure to educate working class students, and attempts to link funding to outcomes. However it is not in the economic interests of agents of symbolic control to share our symbolic resources with the working class, despite our rhetoric of equal opportunity in education and liberating pedagogies, and we are strongly resisting attempts at state interference in teaching and teacher training practices.

*Social groups* that are recipients of the distributive rules can be distinguished most broadly as professional, vocational and manual occupational strata, on the basis of educational qualifications and our research in literacy in industry in the 1990s (Rose 1997, 1998, Rose et al 1992). Aside from their incomes and the degree of autonomy in their jobs, what distinguishes these groups is the broad types of *Knowledge* that the distributive rules have afforded them: theoretical knowledge to professional qualifications, technological knowledge to vocational qualifications, but predominantly everyday forms of practical knowledge to those whose choices are limited to manual occupations or unemployment. That is for the least successful student group, it is experience outside of the classroom that provides the knowledge base for their future work rather than what the school has to offer them. In Bernstein's more recent terms (1999) everyday knowledge is a horizontally segmented discourse, in contrast with the vertically integrated discourse of academic fields.<sup>1</sup>

At the bottom of Bernstein's model he places *Consciousness*, as the underlying outcome of the distributive rules. In earlier phases of his theory (1975-90) Bernstein distinguished two categories of consciousness, as *restricted* and *elaborated* orientations to meaning, or *coding orientations*. In broad terms this distinction simply means access to one, or more than one, way of interpreting experience. Elaborated coding orientations have been compared with Vygotsky's notion of 'high order consciousness', which he claims is characteristic of educated social groups, but less so of oral cultures (Hasan 2004). Bernstein on the other hand makes a further distinction between elaborated orientations to meaning, and *elaborated codes* that are characteristic of written

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<sup>1</sup> Relations between this model of Bernstein's, and the language syndromes of horizontal and vertical knowledge structures are described in Martin to appear.

discourses. Elaborated orientations are realised, for example, in the religious cosmologies of oral cultures, but their "code of cultural transmission, *the relay itself*, is not an elaborated code" (1990: 251).

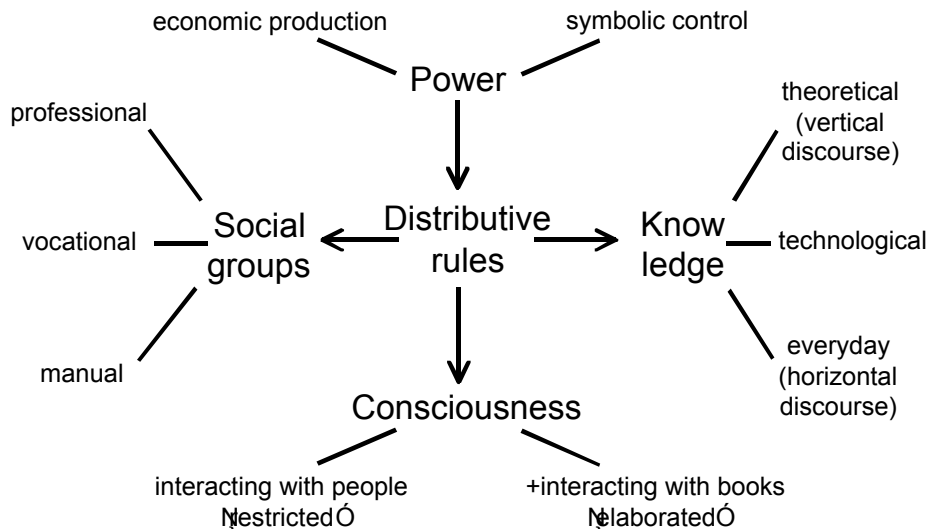
What I want to draw attention to is this 'relay itself', in other words written discourses. Michael Halliday, Jim Martin and colleagues have led the world in describing the differences between spoken and written ways of meaning, in terms of alternative ways of construing experience of the world, and alternative patterns of organising discourse (Halliday 1989, Halliday & Martin 1993). But another aspect I'd like to focus on here is from the perspective of social interaction. From the interpersonal angle the striking contrast between spoken and written discourse is that speaking typically involves interacting directly with one or more other people, whereas reading and writing involve interacting not with a person but with a book (or its electronic equivalent).

As highly literate readers and writers it is easy to take this distinction for granted, but for a small child from an oral family culture it takes on another significance altogether. For such a child, interacting with a book as though it is a person may be a very strange form of consciousness indeed. It is for this reason I believe that literate middle class parents around the world spend an average of 1000 hours reading books with their children before they start school (Bergin 2001), and that many children from oral cultural backgrounds do not learn to read in the first years of school, and may never learn to read fluently. In order to read with understanding and engagement it is essential to conceptualise the book as a partner in an exchange of meaning. Without the orientation to books that middle class parents give their children, it appears to be very difficult for some children to arrive at on their own.

These different orientations to written discourse have consequences right through children's school careers, and on into their adult life and work. Professional occupations are underpinned by a body of accumulated theory that is learned primarily through reading; vocational occupations involve less reading and are learnt more through practical training; while manual occupations are learned primarily through personal demonstration. So in place of Bernstein's restricted and elaborated categories, I am going to distinguish two general forms of consciousness produced by the distributive rules of the pedagogic device: an orientation to interacting with people, and an orientation to interacting with books. Some of us from oral cultural backgrounds have experience with just the first, and some of us have experience with both, in varying degrees. The

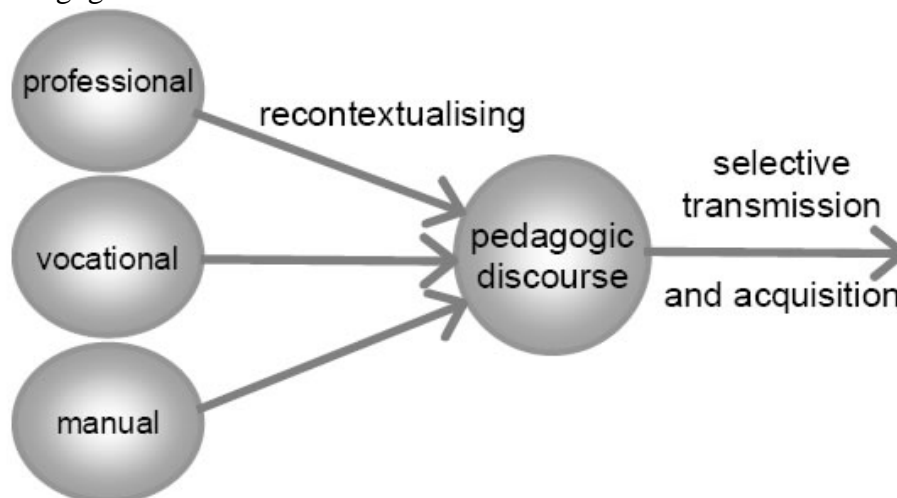
distribution of types of knowledge and consciousness to groups in our society is summarised in Figure 2.

Figure 2: Distributive Rules of the Pedagogic Device



With respect to recontextualising rules, Bernstein further explains that “pedagogic discourse is a principle by which other discourses are appropriated and brought into a special relationship with each other, for the purpose of their selective transmission and acquisition” (1996:47), that is these discourses are removed from economic and cultural contexts and relocated to pedagogic contexts. What shapes their selective transmission and acquisition most broadly is the hierarchy of occupational strata, illustrated in Figure 3.

Figure 3: Economic and Cultural Contexts Recontextualised as Pedagogic Discourse

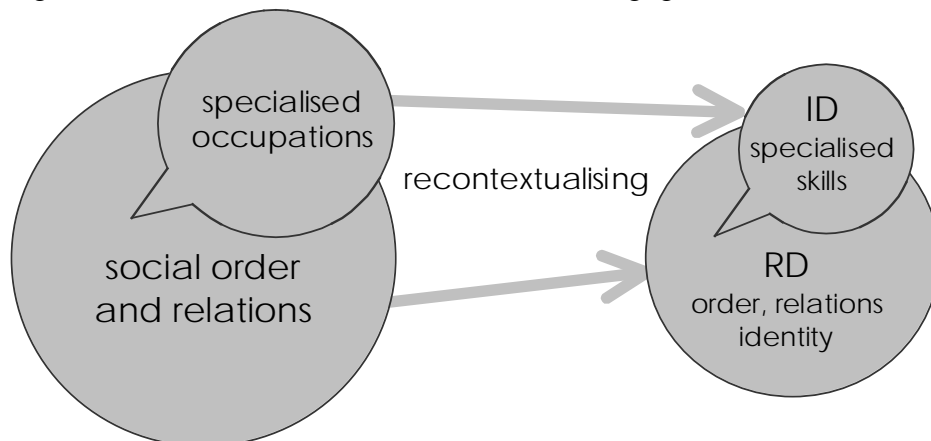


Bernstein distinguishes two dimensions of pedagogic discourse: “the discourse which creates specialised skills and their relationship to each other as *instructional discourse*, and the moral discourse which creates order, relations and identity [as] *regulative discourse*...the instructional discourse is embedded in the regulative discourse, and the regulative discourse is the dominant discourse” (1996:46). The implication of this analysis is that the dominant function of pedagogic discourse is not so much about learning skills and knowledge, which is what we generally assume we are teaching, but rather of ‘order, relations and identity’. What then is the nature of this order, these relations and identities? I suggest that these are continually apparent to all teachers in all our classrooms in every day of our practice. The dominant moral order within all our classrooms is one of inequality, as it is within and between schools, within and between communities, within and between nations.

Figure 4 illustrates four sets of relationships in this model. Firstly the hierarchy of occupations in the economy is projected by economic relations between social groups, the ‘social order’. Secondly, the order and relations of the society are recontextualised in education as a regulative discourse of order, relations and identity in the classroom. Thirdly, specialisations within the occupational hierarchy of the economy are recontextualised in education as an instructional discourse of specialised skills and knowledge. And fourthly, this instructional

discourse is projected by the regulative discourse of the classroom. That is, social order, relations and identity are the underlying messages that are manifested semiotically in the classroom, as selective transmission and acquisition of specialised skills and knowledge.

Figure 4: Social Order Recontextualised as Pedagogic Discourse



The distributive rules have evolved to unequally distribute privileged forms of consciousness, in the interests of the social groups that exercise control over the system. Recontextualising rules have evolved to shape pedagogic discourse, so that it provides unequal access to written discourses through reading. But as Bernstein tells us ‘evaluation condenses the meaning of the whole device’. The evaluative rules of the device “act selectively on contents, the form of their transmission, and their transmission to different groups of pupils” (1996:118). They transform texts into curriculum contents, and then evaluate learners on their skills in acquiring these contents, and their skills in demonstrating their acquisition. This evaluation then determines how and what will be transmitted to different groups of students.

Evaluative rules have evolved to legitimate and cement the unequal access to written discourses that pedagogic discourse affords. By reconstruing written texts as curriculum contents, they background the fact that these contents are transmitted primarily through reading, and that their acquisition is demonstrated primarily through writing. As a result the overt focus of educational practice at all levels is on transmitting curriculum contents, rather than on the literacy skills needed to acquire them. It makes no difference if these contents are construed in



terms of academic subjects, of personal development, or of a critical stance, they all serve to mask the underlying skills required for acquiring these contents - by learning from reading, and to divert pedagogic practice away from explicitly teaching these skills.

## 2. Ontogenesis

### 3.1 *The reading development sequence*

I now want to move from phylogenesis to ontogenesis, to the stages of schooling in which privileged written discourses are acquired, at least by some students. I want to suggest that the acquisition of increasingly sophisticated skills in reading is a hidden curriculum that underlies the whole sequence of schooling. This hidden curriculum is aimed ultimately at the high level reading skills required for university study by the most successful student group. Successful students acquire such elaborate skills by independently processing large quantities of texts across the curriculum over six years of secondary school, learning to recognise, understand and reproduce their language patterns, without being explicitly taught how to do so. Instead the focus of teaching is on curriculum contents, not the language patterns that realise them. The strategy of leaving these reading skills for tacit acquisition simultaneously ensures that success remains limited to this small minority, and that the majority who are not as well prepared for independent tacit acquisition are directed to vocational and manual occupations.

We can distinguish five general stages in this underlying reading curriculum. Each stage prepares successful students with the skills they will need in succeeding stages. But what students are evaluated on is skills that they have or have not acquired in each preceding stage. In this way evaluative rules work in tandem with recontextualising rules at each stage, to relentlessly differentiate students in the school's hierarchy of success and failure.

The first stage of the reading curriculum begins for successful students with parent-child reading in the home, which functions to orient young children to written ways of meaning and to the book as a partner in communication. Junior primary teachers are trained in strategies which value add to this learning in the home, teaching the alphabet and letter

sound correspondences, reinforcing engagement with written stories through shared book reading sessions, and providing opportunities for independent practice with silent reading periods. The overt curriculum in junior primary is construed in psychological terms, as development of the child's personality, but the underlying goal is for independent reading by the end of Year 3. The necessary condition for this, as I have said, is engagement in reading as a communicative activity, that is prepared for in middle class homes.

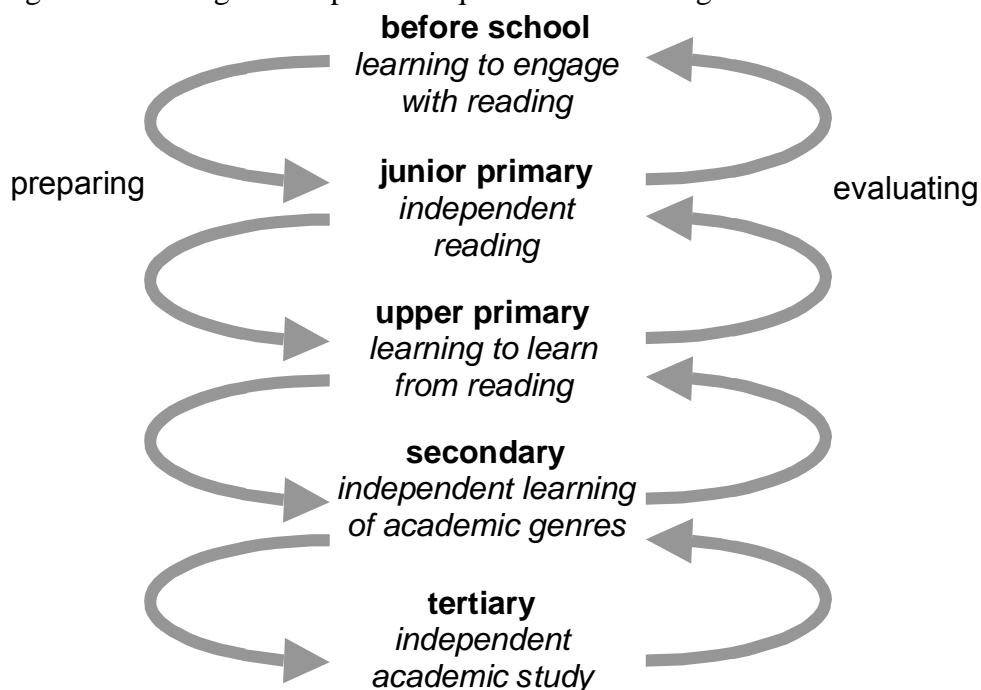
For success in school, it is essential that children are reading independently with comprehension and engagement by the end of junior primary, because the next curriculum stage in upper primary is geared to developing skills in learning from reading. While reading as a communicative activity is a difficult concept for young children, learning from reading is even more so, as the normal mode of learning in all cultures is through practice that is modelled, directed and guided by another person. In order to recognise the book as a teacher it is necessary first to recognise it as an interactant. However skills in learning from reading are not explicitly taught in the primary school, indeed the teaching of reading in general falls away after the junior years, except perhaps for a few students diagnosed with 'special needs'. Rather the overt curriculum focus is on learning topics across subject areas, sometimes known as 'themes' in the weakly classified curricula of contemporary primary schools. A variety of activities are used by upper primary teachers to engage children with these topics, using a mix of teacher input and support, group activities, and individual reading and writing. What I contend is that most of these activities have evolved in the primary school to foster the underlying curriculum goal of independently learning from reading, without teaching it explicitly.

Again it is essential that students are able to independently learn from reading, in order to succeed in the next curriculum stage in secondary school, where reading becomes the primary mode of learning. As Bernstein puts it, "beyond the book is the textbook, which is the crucial pedagogic medium and social relation" (1990:53). Classroom activities across the high school curriculum have evolved to prepare students to read for homework, and to then build on what they have learnt from reading. Without the requisite skills in learning from reading, students can neither succeed with their homework, nor engage with classroom activities at the level expected of their grade. In the high school these

reading skills are rarely taught at all. Instead teachers are pressured to cover the curriculum content that the syllabus demands, allowing little time for teaching skills in reading and writing this content. They are also typically burdened with a wide range of so-called 'ability levels' in their classes, and are constrained to meet the needs of the successful few at least, and the average group at best. In such a context, students who are least prepared by the home, by the early years of school, and by the upper primary years, typically reach the limits of their so-called 'abilities' by Year 9. Instead of experiencing high school as a gateway to the future, these students frequently experience it as a waste of time, in which their identities are continually invalidated.

What then is the function of forcing successful students to study masses of curriculum content over six years of high school? What they are processing of course are texts, of every shape and form. And the critical things they are learning are not the facts and fictions of curriculum content, much of which will be irrelevant to their future study and careers, but the language patterns of academic and literary texts. Rarely are they recognising and using these patterns consciously, as they are not explicitly taught to do so; rather they are using the skills they began acquiring tacitly in the home, and sharpened in the primary school, to intuitively recognise and use the meaning making patterns of written texts. The underlying curriculum goal of the whole of secondary schooling is to prepare these students for independent reading and writing of academic texts when they get to university. The five stages of reading development in the educational sequence are illustrated in Figure 5.

Figure 5: Reading Development Sequence in Schooling



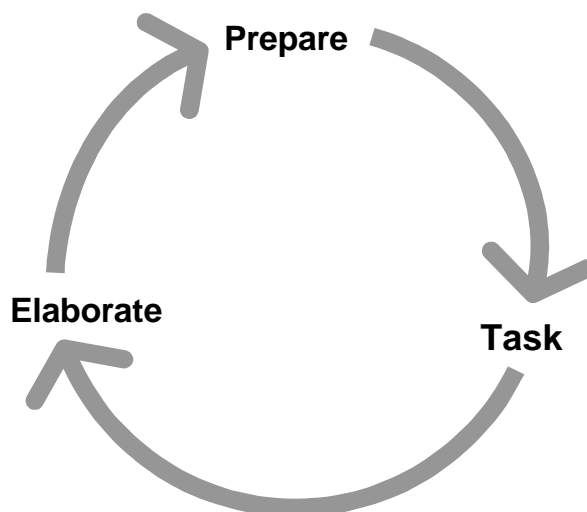
This then is the ontogenetic sequence in which reading skills develop in the school curriculum. Although the pacing of transmission and acquisition varies in each stage of schooling, slowly in early years and accelerating towards senior secondary, the sequencing and pacing of the reading development curriculum as whole is inflexible. If one is slow to acquire the requisite skills in a preceding stage, they will not be made available in following stages except in exceptional circumstances. Yet this age based sequencing is entirely arbitrary. Bernstein points out that “the age by which a child should be able to read is a function of the sequencing rules of the pedagogic practice of the school” (1990:75). For example children in scandinavian countries do not traditionally start school until age 7, yet in anglophone countries they are expected to be independently reading by this age. Likewise, the age that students acquire each subsequent level of reading skills is also determined arbitrarily by the sequencing rules. For Bernstein, sequencing and pacing are dimensions of the regulative discourse, functioning to differentiate students on their readiness to meet the evaluation criteria at each stage. In this light it is highly significant that so-called ‘learner-centred’

progressive pedagogies advocate slower pacing for students who are not able to meet the criteria, and actively oppose explicit transmission of generic skills in reading and writing (Martin, Christie & Rothery 1987, see concluding discussion below). The obvious and inevitable result of slower pacing is that these students will be even less prepared for subsequent stages. By middle secondary they will fall so far behind in the pacing of the reading development curriculum that the overt curriculum must be stratified into two or three levels in each subject area. The lower level strands continue with slower pacing, while the upper strands accelerate towards university matriculation.

### 3.2 *The scaffolding learning cycle*

I now want to introduce a second perspective on ontogenesis, which is the cycles in which reading development takes place. I will call these *scaffolding learning cycles*, and use them as a framework for analysing and designing teaching practices. The scaffolding learning cycle consists of three steps, *Prepare*, *Task* and *Elaborate*, illustrated in Figure 6.

Figure 6: Scaffolding Learning Cycle



This model of learning cycles is predicated on an assumption that we all probably hold in one form or another, that learning involves tasks of some kind. The task may be to articulate new words as a child learns language, or it may be to create an object through manual activity, or to

read an academic article or listen to a lecture with critical understanding. In order for learners to successfully carry out such tasks, we have to assume that they have been prepared in some way to do so.

Outside the classroom, most learning tasks are prepared by a parent, teacher or more experienced peer modelling an activity, that learners then try for themselves. That is, a teacher shows how to do the task, before the learner practises it, whether this is a manual skill (Gamble 2003, Greenfield, Maynard & Childs 2000) or learning language in early childhood (Painter 1998, 2004). At its most basic this is what scaffolding means: preparing learners to perform a learning task successfully by showing them how to do the task.

But in addition to preparing learners for a task, learning activities often involve a third step, during or after the task is done. For example, when a young child uses a new language feature, a parent will often repeat it with correct pronunciation in a whole sentence. The child can absorb this new information because it elaborates what he or she can already do. In the classroom we often use students' responses to our questions to move on to the next step in a lesson, elaborating on what they already know.

The scaffolding learning cycle more precisely specifies the processes of social learning that Vygotsky called the *zone of proximal development*. Vygotsky's spatial metaphor objectifies the learning process, and this has opened it to manipulation to legitimate individuated theories of learning (Inghilleri 2002), it can become just a space, a context where learning is supposed to occur diffusely. The same is true for metaphorical abstractions such as *semiotic mediation* and *activity theory*, that objectify the learning process.

In contrast the scaffolding learning cycle temporalises the learning process, describing how learning actually unfolds in steps with the guidance of a teacher. This is an empirical description of what is, rather than what should be. It dissolves manipulative non-empirical dualisms, such as teacher-centred vs learner-centred practice, process vs product and so on. The analysis can be applied to teaching practices at three time scales. At each level we can ask what is the nature of the task that learners are expected to perform, how thoroughly they are prepared to perform the task successfully, and whether successful completion is followed by an elaborating step.

Firstly we can apply the analysis to the global level of learning sequences, where the goal is a completed activity of some kind, such as a technological procedure or a written assignment. We can ask whether the preceding activities were adequate for all learners to successfully complete the product or text, and whether successful completion is elaborated with another learning sequence that builds on it. In educational contexts this level of analysis is often known as program planning, where the scaffolding learning cycle may be familiar in other forms, such as the 'action research cycle' of *plan-implement-evaluate*, the 'genre writing cycle' of *joint deconstruction, joint construction, independent construction*, or 'curriculum macrogenres' described by Christie 1999.

Secondly we can use it to analyse individual learning activities, each of which may involve a micro-task, that may be a component of the global task expected from the lesson sequence as a whole. In educational contexts this is the level of planning lessons. Again we can ask how learners have been prepared for such tasks, such as performing a step in a craft procedure, doing a maths sum, or reading a paragraph of text aloud, and then ask how the task is followed up. Evaluation is always a component of the step following task completion in any context, but in educational contexts such evaluation often consumes the whole of the follow-up. Its regulative function is to rank students on their success or failure in completing the task.

Thirdly the scaffolding learning cycle can be applied to analysing the continual micro-interactions between teachers and learners that constitute classroom discourse. At this point we are moving from ontogenesis to logogenesis, to describe the patterns of discourse that realise the sequences and cycles of teaching practice. I will use the scaffolding learning cycle to analyse discourse in a range of learning contexts, but first I would like to briefly outline the model of language in social context that underpins these analyses.

### 3. Logogenesis

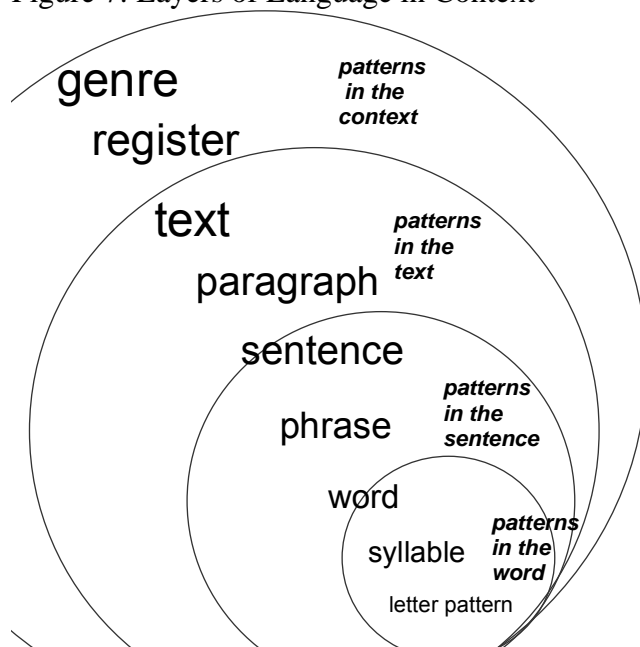
#### 4.1 *The place of discourse in our model of language*

The linguistic theory that informs the design of our literacy pedagogy is based on a stratified model of language as text in social context. We introduce this model to teachers at the beginning of our training, so that they grasp the principles of what they are doing in the classroom, as follows. Firstly, all speakers are aware that language is made up of words; those of us who read and write also know that it is made up of sentences; and those of us who teach are often aware that it is also made up of texts. But each of these three levels includes further layers of structure. A text is not just a string of sentences, but includes intermediate phases of meaning that are often presented as paragraphs. Likewise a sentence is not just a string of words but includes intermediate structures that are often known as phrases, or word groups. Nor is a word just a string of letters, but includes intermediate structures, including syllables and their patterns of letters. Reading and writing, like speaking and listening, involve processing all these layers of structure simultaneously and automatically, including patterns within the word that we call spelling, patterns within the sentence known as grammar, and patterns within the text which I will call discourse.

Beyond the text is the context that it realises, which is also stratified as contexts of situation or **register**, and of culture or **genre**. The register of a text includes the fields of experience that it construes (its 'subject matter'), its engagement of readers and appraisals of positions, enacting the tenor of the reader-writer relationship, and its position on the mode continuum between highly written and more spoken ways of meaning. Its genre specifies its social purpose and the stages it goes through, in relation to other genres in the culture. Finally, running through all these layers of language in context are the ideological messages that the text encodes. In order to recognise and negotiate these dimensions of its context, readers must be able to automatically process each layer of patterning within the text, sentence and word. This model of text-in-context is schematised in Figure 7.



Figure 7: Layers of Language in Context



Various approaches to teaching language and literacy attempt to manage this bewildering complexity in different ways. Each approach recontextualises one or another view of language. Phonics and basal reading book programs recontextualise the bricks-&-mortar model of formalist linguistic theories; so they start at the bottom, teaching systems of phonemes and letter patterns, then words, then phrases, then sentences, but ignore higher levels of text and context. Progressivist ‘whole language’, constructivist and critical literacy approaches recontextualise the interests of cognitive psychology, cultural studies or literacy criticism; so they focus at the top, interrogating the context of a text, but ignoring most of the linguistic patterning that realises it. In practice primary teachers generally use some combination of reading whole texts and explicit teaching of alphabet and sound-letter correspondences, with varying attention to intervening patterns. Many still use word recognition techniques of traditional ‘whole word’ approaches, although these have been widely abandoned in the polarised field of whole language vs phonics. Paulo Freire’s critical approach to teaching adults combined a critique of political fields, with teaching syllable patterns in words from these fields, based on the whole word approach. Specific language teaching programs, such as ESL, EFL, ESP

etc, typically recontextualise grammatical theories, including both formal and functional grammars, such as systemic functional grammar; so their primary focus tends to be on teaching sets of grammar structures and their functions. So-called 'communicative' approaches in these fields create 'contexts' for language learning, but the goal is still to teach grammar structures. The same applies to grammar based approaches to language and literacy in schools, whether they recontextualise traditional school grammars or functional grammars. An important step towards addressing patterns of both grammar and discourse was made by genre based approaches to writing, that are informed by the stratified model of language described here; so they focus on the global organisation of texts, as well as various language features.

Although they explicitly teach only selected domains of the language system, each of these approaches works to some extent for some learners, because they teach them to recognise patterns of language in their particular domains of interest. Learners then intuitively apply skills in pattern recognition that they have learnt in one domain, to other regions of the language system, in order to communicate successfully. However learners vary greatly in their ability to intuitively transfer pattern recognition skills to other language domains. The major factor in this variation seems to be the cultural background of literacy, that is whether or not learners have acquired pattern recognition skills in the context of reading in the home and school, as discussed above for the reading development sequence. This can be seen most acutely in progressivist/constructivist pedagogies that dominate teacher education in developed nations, in which explicit teaching of language patterns is devalued. In these pedagogies, learners from oral cultural backgrounds can be severely disadvantaged, including Indigenous students and many others who have not been prepared by reading in the home (Rose 1999, 2004a, Rose Gray & Cowey 1999). From the regulative perspective then, domain specific approaches to language teaching may serve to create and maintain inequalities between learners, no matter how explicit and supportive the pedagogy may be.

Our own approach to teaching reading attempts to work systematically through each level of language patterning, from the top down; patterns of meaning at each higher level providing the context in which learners can recognise patterns of meaning at each level down. We begin with the context that learners need to know to access a text, including its genre

and the field it is a part of. We then give an oral summary of how the text unfolds through each phase of discourse, in other words the sequence in which the field unfolds through the genre, before reading it aloud. This preparation enables all learners to follow its wordings with general understanding, without struggling to work out what is going on at any point; and as it is read aloud, they need not struggle to decode the letter patterns of unfamiliar words, but attend instead to its sequence of meanings. This oral reading provides a global framework of meaning for learners to read and comprehend each sentence in a short passage themselves, in an activity known as *Detailed Reading*. They are enabled to do so by preparing them to recognise each word group in the sentence from the perspective of its meaning, and its roles in the sentence and the text. All learners are then able to read the passage with fluency and full comprehension, no matter what their starting level was, and how difficult the text is. Furthermore they are able to consciously recognise the language resources that the author has used to construct the text, at each level, so that they can critique and use these language resources themselves. If required we may then go on to address the spelling of words and their syllables. Writing then follows the same course, reconstructing the patterns of the reading text at each level of discourse and grammar, using the pattern recognition skills that have been learnt through *Detailed Reading*. As they are consciously acquired, these skills are rapidly transferred by learners to reading other texts with comprehension and fluency, and to consciously appropriating their language patterns at each level, to write successful texts of their own.

To enable teachers to apply this pedagogy successfully and independently, we provide them with high level skills in text analysis. This involves some practice in analysing grammatical structures,<sup>2</sup> but

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<sup>2</sup> Teachers are trained in our program to analyse grammatical structures, in order to recognise and teach the patterns in which higher level meanings are realised. This training begins with recognising discourse segments at the levels of genre, then discourse phases, sentences, clauses and word groups, some functions of lexical and grammatical words, and finally the elements of nominal groups that become highly elaborated in written discourse. However we have found that detailed study of grammatical features characteristic of grammar courses is not necessary for the teachers we work with. Rather the focus on patterns of discourse systems, with a little grammar, gives them sufficient knowledge to practise effectively. Although it is certainly useful for specialist language teachers, the grammar described in Halliday 1994 and related textbooks is both too much and too little for most classroom teachers. Too much

more importantly we train them intensively in analysing patterns of discourse, applying six system of discourse semantics described in Martin & Rose 2003/2006 as follows:

<b>systems</b>	<b>social functions</b>
NEGOTIATION	enacting exchanges between speakers
APPRAISAL	evaluating attitudes about feelings, people and things
IDEATION	construing experience as activities with people, things, places, qualities
CONJUNCTION	logically relating sequences of activities
IDENTIFICATION	introducing and keeping track of people and things through a text
PERIODICITY	presenting enactments and construals as waves of information

The patterns of meaning in these discourse systems are realised as patterns of wordings, in the grammatical systems described in Halliday 1994/2004, such as MOOD, TRANSITIVITY and THEME. But I want to emphasise here that these grammatical systems are not sufficient in themselves for analysing how texts make meaning, or for teaching learners how they mean. For example, learning interactions in the home and classroom have often been analysed by labelling each clause in terms of its mood or transitivity structures. These analyses may be used to count how many clauses of each type are found in an interaction, and then to classify interactions statistically, according to their proportions of each clause or message type. But because learning involves a dynamic series of unfolding interactions between learners and teachers, classifying types of clauses cannot show us how learning actually takes place in such interactions. What we need, in order to describe unfolding interactions, are discourse systems, in particular NEGOTIATION. And what we need to explain how written texts make meaning are the other five discourse systems above. In the next section I will introduce an analysis specifically designed for learning interactions, based on the scaffolding learning cycle. The relations between this analysis and the more general system of NEGOTIATION are described in Martin 2006.

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because its immense complexity is very costly for teachers to learn, and too little because it hardly begins to address the discourse patterns they need to know.

## 4.2 Classroom interaction

At the level of classroom interaction, the primary task for students in each scaffolding learning cycle is to respond to teacher questions. This pattern is endemic in classroom interaction, described as ‘triadic dialogue’ or the Initiation-Response-Feedback ‘IRF’ cycle by Sinclair & Coulthard 1975 and many others (Gibbons 2002, Lemke 1990, Mercer 2000). But there is no point in wishing that students would do the initiating in these cycles, as progressive theorists would like to imagine (e.g. Wells 1999), because the teacher first needs to prompt the students to do so. Teachers are the ones with the power and authority in the classroom; teachers interact with students by asking them questions, to which they respond. Under certain circumstances, students sometimes also ask questions, express opinions or recount their experience, but only ever in response to preceding cycles that the teacher has initiated.

In our exhaustive analyses of learning interactions, we have found that the task demanded by teacher questions is of two general kinds: if the class is reading a text the task is to *identify* some element of the text, whether a wording or a graphic feature such as an illustration or chart; if the task is not to identify a text element, it is to *select* an element from students’ experience, whether this is personal experience, concepts previously studied, or new elements to contribute to a text. The teacher may prepare students to give the desired response, or simply assume that they already have the resources to respond successfully. And the response may be elaborated with new understandings of the element that has been identified or selected, or the response may be simply affirmed or rejected. Our analyses using the scaffolding learning cycle, are distilled in the following seven types of exchange moves:

<i>Query</i>	teacher asks a question without preparing (or student asks question)
<i>Prepare</i>	teacher provides information to enable successful responses
<i>Identify</i>	students identify element in a text
<i>Select</i>	students select elements from experience
<i>Affirm</i>	teacher affirms student responses (or student concurs with teacher)
<i>Reject</i>	teacher rejects response by negating, ignoring or qualifying it
<i>Elaborate</i>	define new terms, explain new concepts or discuss relevant experience

This analysis is applicable to parent-child reading, in which the parent may prepare the child to identify a picture in a story book, by pointing and naming it, or to select an element of experience to help understand the story. After affirming the child's response, the parent will typically elaborate to extend the child's understanding. This elaboration will either focus on language, such as articulation or grammar, or on some aspect of the context, such as the plot, characters, or emotional reaction to the story. This illustrated in the following transcript of reading with an 18 month old child (from McGee 1998:163). Each interaction cycle is indicated with a box.

### Exchange 1: Parent-child Reading

*Child* [Brings the book, sits on her mother's lap, and turns the book so the cover is facing right-side-up.]

Mother	The three little pigs [points to each of the pigs on the cover of the book].	Prepare
<i>Child</i>	[Opens the book and turns several pages while her mother is talking] [points to picture of a tree]	Identify
<i>Tee</i>	[looks up at mother].	
Mother	Yes It's a tree.	Affirm Elaborate
<i>Child</i>	[points to another tree in the picture]	Identify
<i>Tee</i>	[looks up at mother again].	
Mother	Um, um	Affirm
Mother	[Points to each of the little pigs in the illustrations]. Here are the little pigs. Bye bye mama [waves her hand]. We're going to build a house.	Prepare
<i>Child</i>	[laughs, waves at the mama pig in the illustration and turns the page]	Identify
Mother	Look, the first pig...	Prepare
<i>Child</i>	[Turns the page].	Select
Mother	Oh, oh, I see that wolf [points to the wolf, eyes get larger as if in fright].	Prepare
<i>Child</i>	[turns page and points to wolf] Oh, oh.	Identify
Mother	Oh, oh. He huffed and puffed [blowing on child] and he blew that pig away.	Affirm Elaborate

Very bad, isn't he? [in different tone directed toward child as an aside].

At 18 months this child is already thoroughly familiar and engaged in reading, as she selects the book, and the pages to read, and identifies elements of the text, following her mother's lead in pointing and naming them. Her motivation is clearly the affirmation she gets from her mother. However her mother not only affirms her first response 'Tee', but elaborates it with a complete sentence and pronunciation, extending her experience of language. In the next cycle the mother is able to direct the child's attention to the story, by relating it to her own experience 'Bye bye mama [waves her hand]', so that the child recognises both its experiential and affective meaning, and responds by laughing and waving. In the last cycle, the mother directs the child's attention to a higher level meaning, the expectation of a problem in the story, by again framing it in terms of a familiar emotional reaction, 'Oh, oh' with widening eyes. Again this enables the child to recognise the meaning of expectancy in a story, and so to turn the page and repeat the emotional reaction 'Oh, oh'. This time the mother affirms and elaborates by first reading the words on the page, and then commenting on the wolf's character, introducing the child to the judgement implicit in the story, a high level meaning indeed for one so young.

These patterns of parent-child reading follow a type of learning interaction that I have called a *scaffolding interaction cycle*, which seems to be universal and may be fundamental to human learning (Rose 2004a, 2006c). For example, imagine a parent and child outside: The parent points upwards, "Look, there's a bird!" The child looks up and repeats "Ba." The parent affirms and elaborates, "Yes, it's a bird, flying in the sky!" The affirmation both reinforces the name-referent relation in the child's memory, and motivates her participation in the learning process. The elaboration expands on the child's existing skill, at the levels of articulation, grammar and lexical relations (*bird-flying-sky*).

The importance of affirmation in learning cannot be emphasised too strongly. It is central to Vygotsky's theory, based on his observations of behaviour, and to current models of the neurophysiology of learning (Edelman & Tononi 2001). Our brains have evolved to remember and repeat activities that are affirmed, and avoid activities that are not. Affirmation opens up the potential for learning – rejection closes it



down. The elaboration move takes advantage of this expanded learning potential to raise the level of understanding.

Such highly scaffolded interactions contrast with classroom discourse, in which teachers often ask questions without preparing. One motivation for this is the belief that students must learn by making inferences for themselves, instead of being told the answer. This belief underlies the following interaction in a Year 1 class that is reading a wordless picture book about a snowman (from McGee 1998:164).

### Exchange 2: Year 1 Reading Class

Teacher	What's that he's got, Ben?	Query
Anna & Jody	Carrot!	Identify
Teacher	[makes circular motion on round object in illustration]	Prepare
Bobby	Meatball! Meatball!	Identify
Kris	Oranges!	Identify
Teacher	Yes, Kris, I think you...That's right!	Affirm
Other child	Meatball! Meatball!	Identify
Anna	They're oranges!	Identify
Jody	Oranges!	Identify
Other child	Tangerine!	Identify
Teacher	Well, it's kind of oval like a tangerine. [makes oval shape with hands]	Reject

The teacher's first move is an unprepared *Query*. She asks Ben to infer the answer, but unlike the mother above she gives him no preparation to do so, and he remains silent. Anna and Jody then enthusiastically respond with 'Carrot!' but the teacher rejects their response by rephrasing her question. Only when the initial *Query* fails to get the right response does the teacher now prepare by wordlessly adding more criteria. Bobby then enthusiastically proposes 'Meatball', which the teacher rejects by ignoring it, but then affirms Kris' choice of 'Oranges'. Another child who repeats Bobby's unsuccessful response is also ignored, as are Anna and Jody, who repeat the successful answer, and the last response is rejected by qualifying it, i.e. it is not affirmed. While the instructional goal of this reading activity may be 'inferencing', its regulative function is to evaluate students on the appropriateness of their responses. Of those few children in the class who do respond to the teacher's initiating question, all but one are rejected.

This pattern of unprepared questioning recontextualises another frequent pattern of parent-child interaction, in which the parent prompts the child



to repeat a wording that has been previously modelled for them. The purpose is for the child to display what they know, and to be praised by the parent; its regulative function is evaluative, but the evaluation is always positive, which reinforces both the instructional function of learning the language feature, and the child's engagement in the question-response game. In the classroom, four instructional functions of unprepared questioning include checking students' memories or monitoring their understanding, of information previously presented in class or in texts, or drawing on their personal experience, or demanding inferences as in the example above. As with the parent-child interaction, its regulative function is also evaluative, but now the evaluation ranks children on their 'abilities' to remember, understand or infer, reinforcing the hierarchy of success or failure.

Most of the time unprepared questioning works for teachers, because there are usually one or more students who can infer the desired response, which can then be used as a stepping stone in the lesson. In the next example (Black 2004), the teacher does not need to prepare, because at least one student can select the response she needs, and she can then elaborate on it.

### **Exchange 3: Year 5 Maths Class - Successful IRF Cycle**

Teacher	How would we represent that sort of information? All that information on one graph.	Query
Phillip	<i>You could put them...like the Monday underneath it like that.</i>	Select
Teacher	You could.	Affirm
	You could put Monday, Tuesday, Wednesday, Thursday, Friday at the bottom of your graph.	Elaborate
	That's true.	Affirm
	So let's assume it's going to be just like most graphs – it has a vertical and a horizontal axis and at certain points it has little bits of information.	Elaborate
	And at the bottom Phillip you're suggesting in these boxes at the bottom we put Monday, Tuesday, Wednesday, Thursday, Friday [drawing it on the board].	Affirm

Here the standard classroom practice works ideally as the teacher uses a successful student's response to move to the next step in the lesson,

elaborating with technical information. Phillip is able to give the desired response because he has some experience in reading the genre (the graph) that the teacher is constructing. In the process he is continually affirmed and re-affirmed. Unprepared questioning works in most classrooms most of the time because there are usually enough Phillips in each class that can provide the successful responses to teacher questions, that enable us to move from one step to the next in a lesson, confident that we are engaging at least some of our students. Most teachers also try to get weaker students to infer answers like Phillip, as the Year 1 teacher tried for Ben above, but it rarely works as well, as shown in the next exchange (Black 2004).

#### **Exchange 4: Year 5 Maths Class - Unsuccessful IRF Cycle**

Teacher	[pointing to the centre of the Venn Diagram in the textbook] So B will go right in the middle there, won't it Hasan? B.	Identify
	Do you see why it will go in the middle there?	Query
Hasan	<i>[no response]</i>	
Teacher	Do you see why it will go in there? Can you explain why?	Repeat Rephrase
Hasan	<i>It's got five faces.</i>	Select
Teacher	Pardon?	Query
Hasan	<i>[louder] It's got five faces.</i>	Select
Teacher	Good, it's got five faces.	Affirm
	What else?	Query
Hasan	<i>[no response] [Top pupils have their hands up]</i>	
Teacher	That's one reason why, that's not the only reason why it can go in the middle, is it? [points to one circle in the Venn Diagram] What's that say there?	Query Prepare
Hasan	<i>[reading from textbook] Red.</i>	Identify
Teacher	[points to another circle in the Venn Diagram] What does that say there?	Prepare
Hasan	<i>[reading from textbook] Has at least one square face.</i>	Identify
Teacher	And that has got a square bottom hasn't it?	Elaborate
Hasan	<i>Yeh.</i>	Affirm
Teacher	An' it's red and it's also got five faces, so that's the only shape that will go in the middle, the rest	Elaborate

you're gonna have to decide, some might go in between red and has a square face or might go in between red and has five faces, it might not belong in any of them, in which case you put the letter outside the Venn diagram.

The teacher twice rephrases her question before Hasan can murmur a response, which she is asked to repeat before it is affirmed. Hasan's small success then encourages the teacher to demand another inference which Hasan cannot supply, while other students have their hands up. The teacher's reaction is to simplify the task to just reading out words in the text. The teacher then uses Hasan's correct responses as a stepping stone to give information to the whole class. While the teacher may believe Hasan has benefited from trying to make inferences, to Hasan it has merely confirmed her identity at the bottom of the ability hierarchy. The dominant function is always regulative.

These patterns of classroom discourse differ from scaffolding interaction cycles outside the school in two important dimensions. The first is instructional: scaffolding interactions beyond the classroom typically prepare learners, either by giving them the information to respond with, or assuming it from information shared in prior interactions, as illustrated in the mother-child book reading. But initiating moves in the classroom typically ask learners to *infer* the information to respond with: there is a semantic gap between the preparation or query and the desired response, that learners are expected to bridge from their own resources. Judging just how much of a semantic gap to give learners is a skill that teachers acquire tacitly; more experienced teachers who know their students capacities are often able to make such judgements more consistently, although some of us never acquire such skills, or the skills we do have do not work with particular student groups, in which case a common compensating strategy is to minimise teacher-learner interactions. The other dimension is evaluative: interactions outside the classroom typically begin with a preparation, but inside the classroom with an unprepared question, ensuring that some students will be better able to respond than others.

Neither of these classroom practices - demanding inferences through unprepared questions - are ever wholly intentional. Like the scaffolding interaction cycle as a whole, they are not taught in teacher training

programs, rather all of us acquire them tacitly through our years of experience as students, and we all apply them intuitively as teachers.

We have seen that the inferential demands of classroom discourse serve the regulative function of evaluating students on their abilities to respond. But for the successful students they also serve an instructional function; they support them to intuitively recognise patterns of semantic relations between the teachers' questions and their own responses. Affirmation of successful responses reinforces valued semantic relations in learners' memories for recall in similar contexts. How do teachers know the semantic relations to apply in interactions, without being trained to do so? One source perhaps is the continual interplay between spoken and written modes of meaning that constitutes teaching practice, and much of everyday discourse in literate cultures; another is directly from reading, since such semantic relations are continually being constructed by authors as texts unfold. As classroom questions are typically only indirectly related to a written text, they privilege those students who are most experienced in negotiating semantic relations between oral and written discourses.

#### **4. Regensis**

These analyses of classroom discourse illustrate how the evolution of the pedagogic device, on the timescale of phylogenesis, is realised in the sequences of curriculum and teaching activities, on the timescale of ontogenesis, which are in turn realised in cycles of interaction, on the timescale of logogenesis. Distributive rules shape the sequence of reading development through the years of schooling from home to university. Recontextualising rules shape the structuring of pedagogic discourse so that it privileges orientations to reading developed in middle class families. Evaluative rules shape the school curriculum so that it masks its underlying function of reading development, and shape the cycles of pedagogic discourse so that it affirms students who know how to interact with books and negates students who don't.

These structures and processes have evolved with the institution of schooling so that they appear natural and inevitable. Schools, and much of the educational theorising that surrounds them, actively promote this illusion, as Bernstein describes:

The school must disconnect its own internal hierarchy of success and failure from ineffectiveness of teaching within the school and the external hierarchy of power relations between social groups outside the school. How do schools individualize failure and legitimize inequalities? The answer is clear: failure is attributed to inborn facilities (cognitive, affective) or to the cultural deficits relayed by the family which come to have the force of inborn facilities (1996:5).

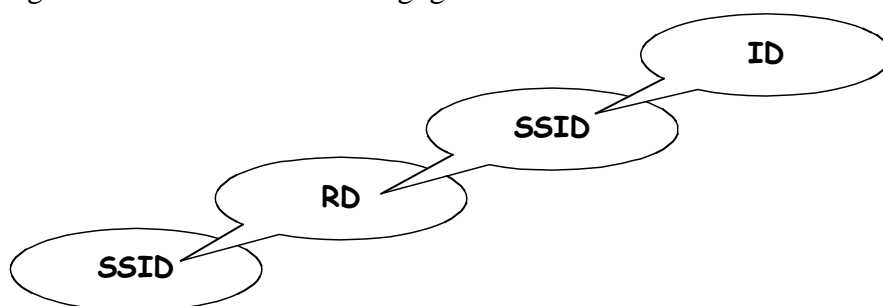
But it doesn't have to be so. Pedagogic discourse is vulnerable to radical change in an era of globalising economies, as individuals, families and nations turn to education as the only viable route to economic equality. The anti-democratic biases of the pedagogic device can be subverted by redesigning our practices at the levels of curriculum sequencing and classroom interaction. Firstly by placing reading at the centre of classroom practice, and explicitly teaching all students how to read and write the texts that realise their curriculum contents. Secondly by carefully designing our teaching interactions so that all students are continually successful at their learning tasks.

With respect to the reading development curriculum, we pointed out above that its sequencing and pacing are entirely arbitrary. It takes six years of primary school for successful learners to acquire independent skills in learning from reading, because they are acquired tacitly without explicit instruction. And it takes six years of secondary school for these students to tacitly transfer their independent learning skills to genres across the academic curriculum, again without explicit instruction. But with the advantages of our research into literacy demands across the academic curriculum (Christie & Martin 1997, Martin & Rose 2006, Martin & Veel 1998), and the *Learning to Read: Reading to Learn* pedagogy, we can intervene in the sequence at any point, to give all students the skills they need at their particular level of study, from early school years to post-graduate university courses. We have repeatedly demonstrated that all students can acquire the independent reading skills they need within one year, in 2-3 lessons per week or equivalent (Culican 2006, McRae et al 2000, Rose 2006a, Rose, Rose & Farrington in prep).

With the tools of discourse analysis we can redesign the instructional discourse of teacher education, so that teachers can explicitly provide

their students with the skills they need for reading and writing. Jim Martin has called this a *social semiotic instructional discourse* (SSID). The SSID in which we train teachers enables them to redesign the regulative discourse of their classrooms, so that all learners are continually prepared and affirmed for success, and the instructional discourse of their classrooms, so that all students can acquire the skills they need. In our model of a redesigned pedagogy for democracy, the social semiotic skills in which we train teachers project a new kind of regulative discourse, in which the goal is equality rather than hierarchy. This in turn projects the social semiotic skills that they teach in the classroom, schematised in Figure 8.

Figure 8: Social Semiotic Pedagogic Discourse



The following transcript illustrates such a redesigned pedagogic discourse, in a stage of our literacy methodology known as *Detailed Reading*. In this example, students are learning to read a complex history text, and to recognise the language resources the author has used to construct it. This is a brief extract of a lesson with South African secondary students in a poor township school, that is described more fully in Martin & Rose 2005, and shown on video in Rose 2004b. Before this lesson no students in this class would have been able to read this text with adequate comprehension, and some had basic problems recognising common written words.

Here the students' task is to identify wordings in the text that has previously been prepared and read aloud to the class. The teacher prepares students to recognise each wording by explaining the sentence and reading it, and then giving them cues to identify each key wording. Cues are either 'wh' elements denoting categories such as who the sentence is about, what they are doing, where or when, or else

commonsense paraphrases of unfamiliar wordings. Students have to reason from the cues to identify each wording, but here the inferential gap is intentionally designed. The semantic relation is either general to particular: from a general class of *who*, *what*, *when* or *where* to the particular wording in the text; or from concrete to abstract: from a commonsense synonym to the technical, abstract or metaphorical wording it in the text. Preparations are designed to ensure that all students are always successful and affirmed, and the element they have identified is usually then elaborated, by defining new terms, explaining new concepts, or discussing the language or context of the text. Elaborations may also involve a scaffolding cycle, in which the teacher supports students to jointly unpack metaphors or other elements of the text.

### Exchange 5: Scaffolding Interaction Cycles in Detailed Reading

Teacher	Now the first sentence tells us that the trouble blew up in the townships, and that the people were rebelling against the government. [teacher reads sentence] <i>In the mid-1980s South African politics erupted in a rebellion in black townships throughout the country.</i>	Prepare
	Now that sentence starts by telling us when they rebelling. Who can see the words that tell us when?	Prepare
Student	<i>In the 1980s.</i>	Identify
Teacher	Is she right?	Affirm
Students	<i>Yes</i>	
Teacher	OK. Let's all do mid-1980s.	Elaborate
Teacher	Then it tells us that South African politics blew up. Can you see the word that tells us South African politics blew up? South African politics...?	Prepare
Student	<i>Erupted.</i>	Identify
Teacher	Erupted! Is he right?	Affirm
Students	<i>Yes.</i>	
Teacher	Can you see the word that says erupted? Let's do that one, erupted.	Elaborate ^

Teacher	The reason they use the word erupted is because that's what volcanoes do. Have you heard that before?	Prepare
Students	<i>Yes.</i>	<i>Affirm</i>
Teacher	A volcano erupts?	Prepare
Students	<i>Yes.</i>	<i>Affirm</i>
Teacher	So what were the townships like? They were like...?	Prepare
Students	<i>Volcanoes.</i>	<i>Select</i>
Teacher	Exactly right, they were like a volcano. And there was all this pressure inside, waiting to blow up and erupt, with all this anger the people were feeling about the government's repression.	Affirm Elaborate
Teacher	OK, South African politics erupted and then it tells us that people were rebelling. Can you see the word that means people were rebelling? South African politics erupted in a...?	Prepare
Student	<i>Rebellion.</i>	<i>Identify</i>
Teacher	Rebellion! Is he right?	Affirm
Students	<i>Yes.</i>	
Teacher	OK, everybody do rebellion.	
Student	Then it tells us where that rebellion happened. <i>In townships.</i>	Prepare <i>Identify</i>
Teacher	Exactly right. Which townships did it happen in?	Prepare
Students	<i>In black townships.</i>	<i>Identify</i>
Teacher	OK! Let's all do black townships. So it happened in townships like Sobantu. So it was your parents that were involved in this. Is that right?	Affirm Elaborate ^Prepare
Students	<i>Yes.</i>	<i>Affirm</i>
Teacher	Have they told you stories about that time?	Prepare
Students	<i>Yes.</i>	<i>Affirm</i>

The teacher's preparations enable all students to identify the key wordings in the sentence, which they highlight as they go. The multi-layered metaphor *politics erupted* is prepared with a commonsense paraphrase 'blew up', which is likely to be familiar to all students. But then the teacher prepares the students to jointly unpack the metaphor, first by explaining that volcanoes erupt, and checking that they know this, then preparing them to infer what the townships were like –



'volcanoes', and finally elaborating this response by explaining that the pressure in the volcano was the people's anger towards the government. Next the abstract noun *rebellion* is prepared by unpacking it to a process involving people - 'people were rebelling', so that students can recognise the activity that the abstraction stands for. Such patterns of semantic relations between metaphors and their referents are explicitly and repeatedly addressed in any passage of academic discourse, until all students can recognise and produce them independently.

Finally these students are prepared to relate their own experience to the historical account, by asking them to affirm that their own parents were involved. This extract was followed by a dialogue in which students recounted their parents' experience of the rebellion, as follows:

Teacher	Did the police and army come here?	Prepare
Students	<i>Yes.</i>	<i>Affirm</i>
Student	<i>They would run into the bushes and stuff. They would hide away from the police.</i>	<i>Select</i>
Teacher	Here in Sobantu?	Prepare
Students	<i>Yes.</i>	<i>Affirm</i>
Student	<i>Like they would drive around in their cars. Like if they find a person on the streets they would lock them away, or ask them why they aren't at school or why they're not working.</i>	
Student	<i>And also come into the house and count how many people in the family. And if they come and they find someone else, that person will go to jail.</i>	<i>Select</i>
Student	<i>If you want to visit your cousin you must go to the police and write down this is a visitor. Because if they come they'll know that person now.</i>	<i>Select</i>
Student	<i>And at six o'clock everybody must be in the house.</i>	<i>Select</i>
Student	<i>Like sometimes, if you're at home, if there's three boys and one girl, a boy that is over 18 is ordered to move out of the house and go build his own house.</i>	<i>Select</i>
Student	<i>When the police come and ask their ages, like if Morgan is living there and he's over 18, he has to go out and build his own house.</i>	<i>Select</i>
Teacher	How would you feel about that Morgan?	Elaborate

Students [laughter]

Student I'd build a shack.

Select

Students [laughter]

Here control passes from the teacher to the students. The initial question is analysed as *Prepare*, because it invites them to relate their own knowledge to the events they have been reading about – it is far from an unprepared query. In this lesson, *Detailed Reading* enabled all students in the class to access the abstract construal of history in the text and relate it to their community's oral recounting of the same events. In Bernstein's terms, the 'local space, time, context' of oral experience is embedded and related to the 'transcendental space, time and context' of written discourse. By such means, elaborated codes can be acquired simply and painlessly by every student, no matter what their class or cultural background. There is no mystery, no quasi-religious realm of 'higher order consciousness', 'transformation' or 'critical consciousness'; there are just meanings, that can be taught and learnt by anyone.

## 5. Conclusion

We are using such carefully planned cycles of classroom interaction to teach reading around the world, with students from all backgrounds and all levels of learning skills, at all stages of the education sequence. What enables us to do this with texts across the curriculum are the discourse analyses described above, of both classroom interactions, and the written texts that students need to read and write (Martin & Rose 2003, 2006). The outcomes, as I have said, are consistently twice to four times expected rates of learning development for all students, no matter what their starting point or education context (Culican 2006, McRae et al 2000, Rose 2006a, Rose, Rose & Farrington in prep). We have developed a professional learning program that can give teachers the skills needed to independently apply this methodology in four to eight days of workshops, together with print materials and training DVDs listed in the references below.

I will conclude with a return to the perspective from phylogenesis, positioning this pedagogy in relation to other theories and pedagogies in the education field, elaborating Bernstein's 1990 analysis. Since the 1960s the field has been polarised in reaction to learning theories

associated with the behaviourist psychology of B.F. Skinner, and approaches to reading that recontextualise these theories, such as phonics and basal reading book programs. These kinds of programs are often favoured by conservative political agents such as the Bush administration in the US. Dominant approaches to reading in the US have historically alternated in generational cycles between the articulation focus of phonics programs, associated with conservatism, and the word recognition focus of 'whole word' programs, associated with liberalism.

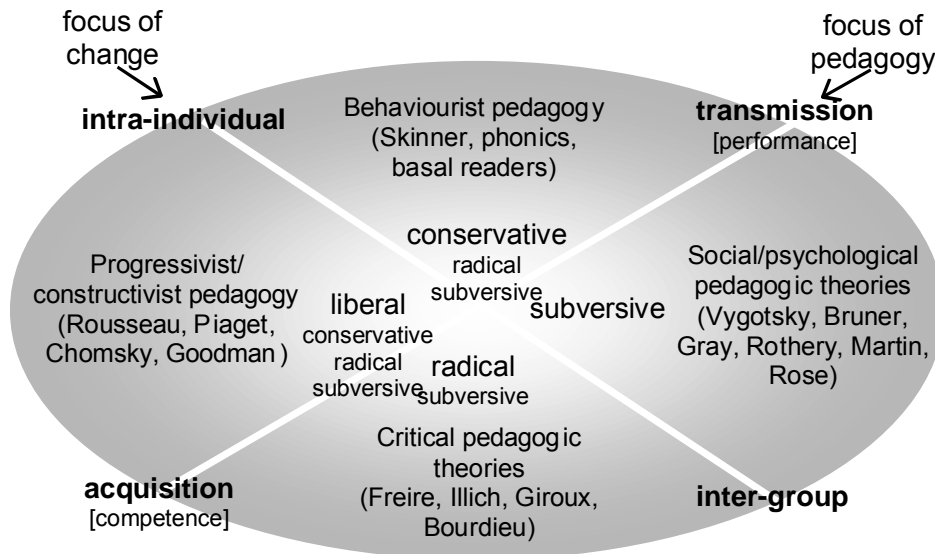
Current reactions to behaviourist pedagogies are of two types. Critical theories start from a radical political agenda, and use political critique as a basis for learning to read. Paulo Freire's liberatory pedagogy takes this position, as well the 'anti-schooling' theories of Illich and Giroux. Although they are popular in certain adult education fields, the overt oppositional stance of these theories marginalises them in state sponsored education systems. In contrast, progressivist/constructivist theories have come to dominate teacher education in developed economies since the 1970s. These pedagogies recontextualise ideas originating in the nativist philosophy of Rousseau, Piaget's theory of innate child development, Chomsky's hypothesis of innate language acquisition, and more recently post-modernist theories of 'difference'. As they consider language learning to be a process internal to the individual, they advocate 'immersion' in texts as appropriate pedagogy, and oppose explicit teacher intervention in reading development. Progressivist/constructivist theories are associated with liberal political ideals, such as freedom of choice, creativity of individuals and celebration of difference. Although they explicitly oppose conservative politics and pedagogies, they do not threaten the class structured status quo of liberal democracies, and are now hegemonic in most western education faculties. With respect to class distribution of symbolic resources, statistics of educational outcomes in Australia, where progressivism has dominated teacher training for three decades, show that it has achieved no significant change in this time (Rose 2004a, 2005a&b).

Both behaviourist and progressivist/constructivist pedagogies are focused on the individual as the locus of change – change in behaviours or in dispositions. In contrast, critical pedagogies are focused on political-economic relations between social groups as the locus of

change; social justice is to be achieved by raising learners' awareness through critical reading. On the other hand, both critical and progressivist pedagogies are focused on the learner acquiring qualitative competences (cognitive or critical), and oppose the traditional focus on standardised performances transmitted by the teacher. They valorise so-called 'learner-centred' activity and condemn 'teacher-centred' transmission. In traditional classrooms the authority of the teacher and the field is overt, and the criteria for evaluation are visible to the learner. In critical and progressivist pedagogies, the authority of the teacher and the field is no less present, but it is masked by the overt value given to the learner's existing cognitive or cultural competence. As they are institutional education programs, learners are still subject to evaluation by the teacher and institution, but the criteria for evaluation are left implicit and so invisible to the learner. For this reason Bernstein refers to these as 'invisible pedagogies'.

A fourth possibility in the field is for pedagogies that are concerned with changing social relations, but focus on transmission of skills. These pedagogies oppose the individuated learning theories of progressivism/constructivism, and analyse learning instead as a social process directed by the teacher, associated with Vygotsky's social psychology. The pedagogy described here is of this type. It is concerned with transmitting skills that learners need to succeed in education, using a social semiotic instructional discourse, and with achieving equality in the classroom and society by redesigning the regulative discourse. Since it is aimed at achieving these goals without being explicitly oppositional, its political position might be described as subversive. These options in the field, their commonalities and contrasts, are schematised in Figure 6.

Figure 9: Types of pedagogy (adapted from Bernstein 1990, Martin & Rose 2006)



The goal of the theory is overtly political: redistribution of the symbolic resources that are the basis of middle class occupations, to social groups that are currently excluded by middle class pedagogic practices. But the pedagogic practice of the theory is not oppositional: it is focused on enabling learners to achieve success in formal education, through reading across the curriculum, without demanding a radical critique of curriculum contents. Instead we work directly with the curriculum as it stands in schools and universities, training teachers to give all students access to it, thus subverting the stratifying effects of conservative curriculum transmission pedagogies. And we work directly with teachers who are looking for tools to meet their students' needs, subverting the control of progressivist/constructivist pedagogues in teacher training faculties, who espouse a liberal rhetoric of equality but cannot give teachers the tools to achieve it. Our radical critique is of ordinary classroom practices that have evolved in the pedagogic device to reproduce social inequality, but remain inadequately analysed in pedagogic theories of every stripe.

We began this work to start seriously addressing the tragedy of Indigenous education in Australia, but we found that this tragedy is only an extreme effect of an unnecessary injustice that runs right through the pedagogic device of every contemporary society. It is the enthusiasm with which teachers around the world are taking on the methodology and beginning to transform their students' learning outcomes that is persuading us to start imagining the unthinkable - a world in which education could become a gateway, not just to material comfort for a privileged few, but to justice and equality for all.

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