



## ESSAY REVIEW

### Revolutionary reading

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For decades, together with his colleague and wife Yetta, Kenneth Goodman has been lionized and vilified by literacy educators and education decision-makers on both sides of the Atlantic. It is unusual for scholars as careful and thorough to evoke such responses. However, literacy in general and literacy education in particular are highly political and contentious issues. Those who make connections, as Goodman does, between literacy activities in the classroom and the power of the individual in the wider literate society are entering hotly-contested ground.

It is widely believed that a nation's prosperity, well-being, and standing in the world are, in large part, the product of the level of literacy achieved by its citizens. When the countries on the Pacific Rim surged to economic success, just over a decade ago, we were told that this was the result of their high test scores, and that these were the product of 'traditional' whole-class teaching from the front (see, e.g. IMF 1991, Reynolds and Farrell 1996). Despite the subsequent economic decline of a number of those countries with high reading scores, the notion persists that a high level of literacy is an essential component of a country's success in the world.

#### Kinds of reading

However, what kind of literacy? One's view of this is closely linked with one's view of a healthy society. Is what's wanted the literacy to speed up the processing of insurance claims? Or, do we want (at least in some of the population) the literacy to interpret more complex documents? What about the imaginative literacy that allows one to think about other places and other

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The book reviewed here is Alan D. Flurkey, and Jingguo Xu (eds), *On the Revolution in Reading: The Selected Writings of Kenneth S. Goodman* (Portsmouth, NH: Heinemann, 2003), xvii + 460 pp., US\$35.00 (pbk), ISBN 0-325-00542-7.

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times and other points of view, and to see the familiar in new ways? Or the critical literacy that allows us to evaluate carefully what is read and written?

Governments tend to take a rather narrow view. All over the anglophone world, especially in the Northern hemisphere, education in general and literacy education in particular have been straitened in recent years by governmental insistence on measurable outcomes and the imposition of targets, largely predicated on a limited and instrumental view of literacy. Perhaps this is inevitable in a market-driven culture, where a demand for 'accountability' accompanies every sort of public expenditure.

However, this insistence on measurable outcomes has created an atmosphere in which high test scores are no longer regarded as less than totally valid or reliable indicators of the learning achieved, but instead are perceived and treated as the desirable goal of education. To answer a set of externally-devised questions in the way approved by the examiner proves you are a capable reader. No matter if you find it hard to locate information on a given topic, cannot relate the text in front of you to what you have learned from other texts or to your own experience, have no capacity to evaluate what you read with the critical faculties needed in the world, or have no love for reading and never read when you don't have to. And, if you answer the test questions in the right way, you are contributing to raising the national literacy index and ultimately to its economic advance.

Ken Goodman has never settled for such a limited view of literacy education. Throughout all that he has written—and this volume collects together papers written from 1967–1994—it is clear that the goal for him is not just the mechanical 'retrieval' of information, but active engagement with texts that matter to the reader. Even of 'readers in trouble'—those who read less well than they or others would like—he writes: 'Pupils must reach the point where they choose to read when there is nobody there to make them do it, before educators can really claim success' (p. 429).

The texts he draws on for his own sustenance come from far beyond the usual frame of reference of those who write on learning to read; in addition to the works of the psychologists and linguists discussed below, they include works by Copernicus, Charles Darwin, Albert Einstein, Thomas Kuhn, and Umberto Eco, among many others. All are substantial. All are challenging—not just to the individual reader, but to the accepted wisdom of their times. Reading for Goodman is a far from trivial business. He wants the children we all teach to share in reading experiences of as much value to them.

This rich conception of reading informs all his work. However, this lofty and powerful aim is accompanied by a keen and almost anthropological interest in what readers—from novices to the highly experienced—actually do as they operate on text. Ken and Yetta Goodman have given us 'kidwatching' and made it evident that there really is no substitute for examining the reading process in action, not taken away from real-life contexts to a laboratory setting or reduced to the fragmentary abstractions of the usual kind of reading test, but the whole process, in its normal functional context, where readers engage with text to make sense of it. Anything short of this is not reading in Goodman's book. Tests composed of nonsense syllables, single words, unconnected sentences, or literal 'comprehension' questions on longer passages cannot, in his view, be counted as tests of reading, for

none of these will serve as an indicator of the process of comprehending in which the effective reader engages, of which more below.

### Miscue analysis

Over the years, this kidwatching has produced important results. Carefully documented and analysed through the procedures of 'miscue analysis', which with Yetta Goodman he pioneered and developed, kidwatching has shown us that neither young readers nor proficient readers proceed in a straightforwardly linear or inductive way from letter-perception, through word- and phrase-perception, to meaning. The process is far messier, more complex, and more intelligent, and calls into question much conventional wisdom about how we should teach children to read. It involves knowledge of language and knowledge of the subject matter of the text being read. Most importantly, it is an active process, with inference and guesswork at its heart, held in check by self-monitoring for sense, necessitating movements to and fro in the text, rather than a relentless forward progress.

In miscue analysis, the procedure the Goodmans developed, the child reads aloud a piece of coherent, connected, usually narrative text, of interest to her, unaided as far as is possible without the child being made to feel uncomfortable. She subsequently re-tells the story. As she reads aloud, where her responses differ from the words on the page, the teacher or other investigator marks what she says on her own copy of the text, using agreed symbols to show such deviations as repetition, hesitation, or omission. The 'window on the reading process' that this procedure offers has been widely used in research into children learning to read (e.g. Bussis *et al.* 1985), as well as by teachers seeking to understand how particular students go about the process and what they derive from it.

### Seminal influences

Goodman's challenging conceptions of reading and learning to read have not arisen from these close observations alone. In pioneering the recognition that reading is a process that is essentially linguistic, his earliest writings are powerfully influenced by Chomsky's conceptions of language. In those early papers, he sees reading as principally concerned with arriving at the 'deep structure' of a text, the semantic and syntactic relations which find expression in the 'surface structure' of words organized temporally or spatially. This makes the accurate identification of letters, phonemes, and individual words—the concerns of most researchers into early reading—appear quite irrelevant to an understanding of the processes involved. If reading a text is arriving at its deep structure, then what matters is helping the child achieve the most efficient and effective route to this deep structure, which, says Goodman, certainly doesn't involve identifying every letter, and often not every word.

In his top-down approach, he draws on work from Cattell at the end of the 19<sup>th</sup> century, to George Miller in the middle of the 20<sup>th</sup>, showing that

‘what we know controls what we perceive’ (p. 331): linguistic knowledge is involved in the perception of written text, words are easier to perceive than arrays of individual letters, and meaningful propositions, in familiar language are easiest of all (Cattell 1886, Miller 1956).

For Goodman at this time, the term ‘decoding’, so often used by others to refer to word identification, refers instead to the process of arriving at the deep structure, or meaning, of text, not the identification of individual words, much less the process of sounding these out on a grapheme-by-grapheme basis. So, for him—at least in his early papers, those written up to the mid-1970s—he focus of reading is the reconstruction of meaning. Reading is decoding and decoding is reading. He advocates the term ‘recoding’ for oral reading (reading aloud) since the message, having been extracted from one code (written language), is now inserted into another (spoken language). However, he claims that what teachers tend to train children to do in the early stages of learning to read, namely to give an oral rendition of the text that is accurate word-for-word, short circuits this process, as it misses out the essential stage, arriving at meaning. It goes against all Chomsky has taught us about how we process language.

He is also much influenced by the work on language acquisition that Chomsky’s work initiated, which sees the child as applying her innate Language Acquisition Device to the speech she hears around her, and so constructing a succession of increasingly complex grammatical rule systems, from which her own speech is generated. Supported by a few neat and familiar instances of children’s rule-bound ‘miscues’, such as ‘I seed the mouses’, this idea, revolutionary in its time, banished for ever the claims that imitation, operant conditioning, or explicit rule-following provide adequate explanations of children’s language learning.

After the publication in 1959, in the journal *Language*, of Chomsky’s (1959) devastating review of Skinner’s (1957) book *Verbal Behavior*, swiftly followed by an explosion of work by Brown (1973) and others on language acquisition, it became widely accepted that children and their linguistic errors (such as ‘mouses’ and ‘runned’) could no longer to be patronized or usefully corrected. Instead, the children had to be respected as constructors of grammars, which they were shown to revise and expand at a truly impressive rate.

And of course children were doing all this without any conscious knowledge of verbs or nouns, much less of sub-ordinate clauses. As psycholinguists started to listen carefully to children’s speech, they found most 5-year-olds, in terms of sentence structure, to have mastered the essentials of the adult linguistic system, without any conscious awareness of what they were doing. Those who sought to explain language acquisition took Chomsky’s (1959: 58) words to heart ‘a refusal to study the contribution of the child to language learning permits only a superficial account of language acquisition ...’. Children were studied not for their deficiencies as language-learners, but for their power as language-generators.

Goodman draws clear parallels with learning to read. Just as children learn to talk without explicit attention to the phonemes, word classes, or syntactic structures of which language is composed, so they should be allowed to learn to read and write. Instead of drawing children’s attention to

letters and words, we should, he argues, regard learning to read as a natural process. 'In neither case is the user required by the nature of the task to have a high level of conscious awareness of the units and system' (p. 354).

However, although conscious awareness of the bits and pieces plays little or no part in Goodman's view of learning to read, this does not mean that the mind is not at work. Just as Chomsky dismisses research into language acquisition that accords no importance to the child's contribution, failing to recognize the uniquely powerful mental power of the human child to shape the degenerate language she is surrounded by into a set of orderly structures which she then manipulates at will, so Goodman castigates those who devise lengthy and detailed programmes for reading instruction that treat the learner like Skinner's black box, denying any capacity to detect the regularities and infer the underlying structures of written language. Those who take such a limited view of the learner may have given us 'a highly-developed technology of instruction', but its 'very shallow theoretical base' makes this worthless.

Like Chomsky, Goodman rejects psychological approaches based on behavioural learning theory and the work of Thorndike and Skinner, which treat the learner as the empty-headed and passive subject, acted on by the teacher and the text, which provide the stimuli, prompting responses which are then re-inforced through external reward. Goodman sees the vast commercial apparatus of the teaching of reading, with basal readers at its heart, as founded on such a conception. Instead, he is guided by psychologists who take the view that children have minds. We need a psychology, he argues, based on our uniquely human capacities, which have enabled us to make our mark on the world, not one that treats us like pecking pigeons or bar-pressing rats.

In Piaget's work, he found more congenial ideas, which influenced his earliest writings, particularly in the concept of children's progress through states of disequilibrium and equilibrium, achieved through the processes of assimilation, accommodation, and adaptation. These ideas allowed a view of literacy learning as an active process in which children are forever striving to make their worlds more predictable and manageable, as they focus their mental energies on making sense of texts. Goodman was also much influenced by Piaget's respect for the power of play as a context for learning.

Later, Vygotsky, who also sees play as a powerful context for children's learning, became a stronger influence. He was valued partly for this and his thinking, now well-known and widely-respected, on such matters as learning as an essentially social process, the need to engage children in whole tasks that make sense to them, and the zone of proximal (or potential) development. However, Vygotsky's (1962, 1978) less well-known observations on learning to read and write also appealed to Goodman. Writing in 1990, Goodman heads an article with a quotation from Vygotsky's (1978) *Mind in Society*: 'The best method (for teaching reading and writing) is one in which children do not learn to read and write but in which both these skills are found in play situations. ... In the same way as children learn to speak, they should be able to learn to read and write' (p. 118). Goodman comments that '[i]n this passage, Vygotsky expresses his belief that written language develops, as speech does, in the context of its use'. He draws clear parallels with

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the Whole Language view of literacy learning, which 'views learners as strong, not weak, independent, not dependent, active, not passive' (p. 258).

However, in a sense, reading Vygotsky appears to have confirmed and refined Goodman's ideas, rather than revolutionized them. The shift in focus from the individual to the social had already been made after his encounter in the late-1970s with the work of another ground-breaking linguist, Halliday (1975).

A paper published in 1979, 'Learning to read is natural', reprinted as chapter 20 of the present volume, indicates a marked shift from his earlier, heavily Chomskyan, position, and is the first product of Halliday's enduring influence. First appearing in Resnick and Weaver's (1979) *Theory and Practice of Early Reading*, it made an important contribution to the development of a powerful school of thought that proposed ways of examining and promoting children's early reading predicated on a view of children as active and interactive learners.

From Halliday and the school of systemic linguistics that has grown up around him, Goodman takes the powerful conception of language as essentially functional. Whereas Chomsky sees language as an immensely intricate system, which children master, when exposed to it, because they are programmed to do so, while not denying its complexity or the child's innate mental powers, Halliday sees language as performing a range of functions for us. So, we learn language not just because we are programmed to do so, but because of what it can do for us. Language for Halliday is 'meaning potential'; our control over the system increases in order to enlarge our 'meaning potential', to enable us to make more and subtler meanings, related in increasingly complex ways and to put these to use, so that we might control the actions of others, interact with them or announce ourselves as individuals, as well as communicate information. In learning language we are learning how to mean, and meaning is essential to being human. And, rather than functional expansion following an extension of mastery of the forms of language, to Halliday, an awareness of function always precedes the grasp of the forms through which it can best be realized. We have to have an idea of what we want to do with the tools before we can learn to use them effectively.

Influenced by Halliday, Goodman argues that the acquisition of written language should be seen as expanding the user's linguistic range and effectiveness. Children must be put in a position to feel certain needs if they are to seek actively to develop the related forms, just as, in their oral language learning, they were impelled to learn the forms of the imperative by the need to regulate others.

However, most early literacy teaching has no such aims or means in mind. No account is taken of how the written word might extend children's range as language-users, and thereby have an evident intrinsic value for them. Whereas, when they are learning to talk, the informative function appears to be the last one that children acquire (they can tell you what to do long before they can tell you about things), it is often the only function served by the texts they are expected to read and write in school. In conventional classrooms, children tend not to read or write for their own purposes, so they see their school literacy activities as serving only to please the teacher and to show that you are a good pupil. From this point on, all Goodman's

work is coloured by a desire to make written language in the school classroom as functionally varied as it is in the world outside, and to respect the sequence of learning shown in children's development of oral language.

The term for which Goodman is perhaps best known is 'Whole Language'. The term was coined to indicate the nature of the language-learning process—complex but unified, involving semantic, syntactic, and grapho-phonetic elements all bound together—as much as the teaching process, which engages children in making sense of, and constructing, whole texts rather than focusing on decontextualized bits and pieces. From 1979 on, Goodman characterizes this in Halliday's functionally varied terms, stating that, 'Halliday's (1975) seven functions make a good guide for generating learning experiences for initial and continuing reading instruction' (p. 368).

Beside the linguists and the psychologists, there is another thinker who has been important to Goodman, Freire (1970). From his work in downtown Detroit in the 1960s and 1970s, to his more recent work with the Tahono O'odham native American people in Arizona, Goodman has always been passionately concerned with the literacy education of those in danger of marginalization. In this, he is guided by Freire, who urges that the 'banking' view of education, which treats learners as empty vessels, should be replaced by one that sees learners in a power-relationship to society. Education must empower, to help learners liberate themselves. This means that 'The learners must own the process of their learning. They must see learning including literacy and language development as part of a process of liberation' (p. 381).

### Comprehension and comprehending

Of course Goodman is not alone in wanting children to learn to put reading to use. Schools, teachers, and examiners have traditionally been concerned with comprehension, seeing this as the goal of reading instruction. However, to Goodman, comprehension is very different from comprehending. The first is a product—inert, and usually uniform and mundane, the stuff that many reading tests demand. It is composed of items of information 'retrieved' from the text and presented to the tester, much as a dog retrieves ducks shot down from the sky and presents them to his master. Comprehension is backward-looking and concerned with the conventional; in no way does it engage the reader as an individual with her own experience and way of seeing the world.

By contrast, comprehending is to Goodman an active process, a transaction between the reader and the text, in which the reader seeks to make sense of what she reads, relating it to what she knows. It is a process that has a forward dynamic, shaped by the reader's expectations, inferences, and predictions. However, it also involves, certainly where challenging text is concerned, backward moves, when parts of the text surprise or fail to make sense, and the experienced reader knows she has to look more closely and with a sharper focus on the meaning being constructed. For Goodman, certainly after 1979, meaning is not located in the text, or even the author, but in the transaction.

### Passionate responses

So we can begin to see some of the reasons why Goodman's work has excited passionate responses—both hostile and favourable. He challenges:

- the conception of the learning and teaching of reading as straightforward, orderly processes, proceeding through a 'hierarchy of skills' from small, simple units—letter/sound relationships—to larger, more complex units;
- the idea that one's competence as a language-user can be developed by focusing on the component parts of a text;
- related to this, the idea that to read well one must attend to every word and every letter;
- the underlying assumption that control over form must precede control over function;
- the view that the teacher should be in charge of the student;
- the view that a centrally-devised programme should be in charge of the teacher;
- the view that the goal of the process is to fit individuals into the existing social structure; and
- what counts as success.

Such ideas threaten the publishers of basal readers—reading schemes, as we call them in the UK—and the whole testing machinery. They call into question the way in which children and, increasingly, teachers, are assessed and graded. They also question the validity of much research into the learning and teaching of reading. And, they pose a threat to teachers who are happy to follow texts chosen by others and lesson plans devised far away from their classrooms. Above all, they threaten those with vested interest in the status quo.

On the other hand, these same ideas have elicited warm responses from teachers who are knowledgeable about children and children's literature, and passionate to bring the two together. 'Whole language' has been a rallying cry in the US as teachers have enthusiastically adopted a pedagogy that places emphasis on what children can do and on the meanings they can make through written language. And, in the UK, while the term 'whole language' has never caught on, both directly through his own writing and indirectly through the work of popularizers and those of like mind, his works have had an enormous influence.

Teachers have warmed to a conception of literacy teaching and learning that takes a fresh look at how we read and write in the real world, that proposes that learning in school should be like the (apparently more successful) learning out of school and that the curriculum should involve children in 'a series of authentic speech and literacy events' (p. 316). Thoughtful, confident, and ambitious teachers have been persuaded of the dangers of empty learning or 'procedural display' in many school-based literacy activities, and have felt invigorated by the notion that, like mastery over spoken language, mastery over written language is brought about through the forces of individual invention and social convention, and the tension between them. Teachers with imagination have welcomed the idea of adjusting the



school to the learner, rather than the learner to the school. Many have found that life in the classroom is much more interesting if, like Goodman, they encourage their students to take risks, to draw inferences, to use literacy for their own purposes. They have valued the encouragement he has given them to see themselves as thinking professionals, rather than the distributors of 'teacher-proof' materials.

In miscue analysis, teachers have welcomed a diagnostic tool that indicates, not just which component bits of the reading process children have knowledge of, and which bits appear to be missing, but, more importantly, *how* each individual child goes about the task of reading, and where her problems might lie, in terms of the strategies she adopts when faced with text. It enables teachers to identify where children are failing to make effective, harmonious use of the major 'cueing systems' of written text: the semantic, the syntactic, and the grapho-phonetic. It shows them plainly how children may appear to misread a word, but in their re-telling, reveal how they have, in fact, identified the problematic word in the text and made appropriate sense of it. It also shows that children whose miscues are not immediately corrected, given space, are often capable of correcting themselves.

The 'Whole Language' approach allows teachers to recognize children's pre-school experiences of literacy, to work from children's interests, and to create alluring and stimulating language environments in their classrooms that intensify the literate environment outside school. It legitimizes broadening the literacy curriculum to include a range of texts, from collectively-established classroom rules to the writing of telephone messages in the role-play area—in other words to use written language to expand their linguistic range and effectiveness.

### Fundamental challenges

However, what about the claims on which this practice rests? Is reading an essentially top-down process? To make effective sense of a text, do we always approach it with an expectation of its overall meaning, and then operate through sampling, prediction, and checking? Is learning to read similarly top-down? Can we happily assume that phonics learning will take care of itself, just like the learning of phonology in spoken language? Is the main barrier to effective learning an excessive concern for accurate word-identification?

Goodman has, of course, not been the only scholar to look at these processes. Using the metaphor of the latest development in computing in the mid-1970s, Rumelhart (1976) proposed that the process of reading was one of 'simultaneous, multi-level, interactive processing'. Rather than operating in a top-down way, as Goodman had claimed, or in the bottom-up way on which the whole basal apparatus is predicated, Rumelhart claims that reading is both at once. The reader comes to a text with expectations that influence what she perceives, producing downward-directed hypotheses about sentences, phrases, and words. So far, so Goodman. However, at the same time, Rumelhart argues, she notices individual letters, from which she

derives upward-directed hypotheses about the words, phrases, and sentences. Reading is smooth and untroubled as long as the two sets of hypotheses are in agreement. Where conflict arises, the reader needs to both check the meaning and look closely at the letters on the page. This view is now widely accepted.

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And a legion of investigators and educators have challenged the views that children can infer the relationship of written to spoken language for themselves and that the explicit teaching of phonics is harmful. It is clear that some children do work out the relationships without explicit teaching: a famous paper by Torrey (1973) documented one such case. A more recent European text gives accounts of many more (Cohen and Söderbergh 1999). However, the Torrey case, which concerns the successful self-teaching of an African American 5-year-old, while by no means unique, is not widely replicated in whole-language classrooms. Cohen and Söderbergh (1999) report on even younger children, whose homes have been made into very carefully contrived environments, in which adults interact with them principally through the written word. Replication in a school setting appears not to be a practical proposition.

Work by the British psychologist Frith (1985) clearly demonstrates that, regardless of the teaching methods used, children's approach to word-recognition follows a similar developmental route as they make progress in learning to read. She sees three phases in this progress, starting with the logographic phase in which children see words as whole configurations and have no strategies for identifying new words. This is followed by the alphabetic, or analytic, phase in which they process problematic words deliberately, a bit at a time. Most finally arrive at the orthographic phase, in which they 'recognize' new words immediately, having internalized the spelling patterns they exhibit. Frith, whose main interest is in children who experience great difficulty in learning to read, sees the transition from the logographic to the alphabetic to be peculiarly problematic for most child learners. Children need to have their attention drawn to the workings of sound/symbol relations, and most need extensive support and encouragement to invest the energy necessary to the arduous process of mastering these.

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There is much current debate about the best kind of phonics teaching. It is true that much conventional phonics teaching is based on the idea of an isomorphic relationship between individual letters and individual phonemes, an idea which, in a paper published originally in 1972 (Ch. 22 in this volume), Goodman rightly rejects. Yet, there are other, linguistically better-informed, approaches. Goodman's claim that 'alphabetic systems don't simply operate on a letter-sound basis. ... Sequences of sounds seem to have relationships to sequences of letters' is not only supported by Chomsky and Halle (1968), but also at the heart of the onset and rime approach to phonics teaching developed by Goswami (1988) in the UK and Moustafa (1999) in the US.

Recent studies of classrooms on both sides of the Atlantic have shown that the most successful teachers of literacy give pride of place to a range of meaning-making activities with whole texts that their students find interesting, again giving support to Goodman (see Medwell *et al.* 1998, Pressley 2003). However, these studies also show that these teachers give their

students explicit instruction in phonics. Goodman might quarrel with the criteria for success, but in neither study is this limited to children's scores on standardized tests of literal comprehension. However, the phonics teaching is not decontextualized: children attend to the spelling of words in the context of using them for a meaningful purpose. So, while much rigid and conventional phonics teaching, with its burdensome and tedious apparatus of basal schemes, might be said 'to make learning hard for children' (p. 423), this does not seem to be the case for all phonics teaching. Children can be helped to take possession of the tools they need for the making sense of the texts they are interested in.

### **Our debt to Goodman**

We owe an enormous debt to Goodman for bringing so clearly to our attention, over the last 30 years and more, the idea that literacy teaching is most effective when children are engaged in constructing or comprehending texts that have a compelling meaning for them, that serve a purpose in their lives. He has also helped us all to recognize how important and noble an enterprise literacy education is—or should be. He has shown us the links between literacy teaching and hopes for a better world. Indeed, his work is characterized by such connections—between wide intellectual horizons and close observations of readers in action, between large political issues in the wider world and power relations in the literacy classroom, between the reading of literature of enduring power and significance, and a young child's encounter with a text that speaks to her.

As a writer and thinker, Goodman has spent most of his long professional life building a unified theory of language and literacy development. It is in the nature of things that unified theories on complex matters are hard to achieve. As Dyson (1979) writes of the unified field theory which has been the goal of so many physicists, and which pre-occupied Einstein's last years, 'I knew how many great scientists had chased this will-o'-the-wisp of a unified theory. The ground of science was littered with the corpses of dead unified theories' (p. 62). A unified theory of language and literacy development may be similarly elusive. Goodman sees children as complex constructors of linguistic meaning, operating, through the different media of spoken and written language, and at different stages along the road to proficiency, in essentially similar ways. However, it would seem that, as well as important similarities, there are important differences between learning written and spoken language, and between the processes employed in reading and writing at different levels of proficiency.

We do not yet have a unified theory to cover language and literacy development. However, this does not mean the search is a fruitless process. In physics, the search for unified theories carries on, and is thought to have provided the dynamic of much productive recent investigation. Goodman has contributed significantly to the long-term process of constructing such a theory for literacy, through work that has also been of more immediate benefit. Literacy studies have been enormously invigorated by the theoretical perspectives Goodman has developed and articulated with such clarity.

Over the last four decades, Goodman's has not been a lone voice. Others have worked to investigate the processes of reading and writing in the light of what we know about language, literature and human learning. However, Goodman's work stands out as the most ambitious in scope and the most rooted in observations of readers and writers engaged in putting literacy to use.

Meanwhile, other forces have been at work. Literacy research is no exception to the information explosion of our age: more information than ever before is traded daily on an exponentially expanding number of topics. And, of course, this proliferation poses problems, both for individuals trying to make sense of and improve their practice, and also for decision-makers trying to take education forward at school system or national level. Some filters are necessary. The National Reading Panel (2000), set up by the US Congress in 1997, was charged with just such a mission—to provide 'an evidence-based assessment of the scientific research literature'.

However, this 14-member panel failed to recognize the long-term and complex nature of learning to read; instead, as a respected critic puts it, 'reducing schooling in general and reading education in particular, to a series of low—or non-interacting interventions' (Cunningham 2001: 330). Taking 'scientific' to mean 'positivist' (a definition that would exclude much important work in physics), the panel discarded all studies except those using a narrowly positivist approach, reserving their approval for short-term, univariate, and single cause studies.

Such an approach means that all work that takes a longer view, that looks closely at processes and intentions, that takes account of particular contexts, or attempts to build a theoretical coherence is discarded. Along with the work of other noted scholars, Goodman's work was discarded. This is certainly in tune with an age of targets and accountability. However, how much does it have to do with advancing education?

Teachers know the importance of a longer view. Education must be about the longer view or it is nothing. The kindergarten teacher establishes ways of behaving in school not just to ensure better working conditions for her teaching in the next few months, but also to develop in her charges consideration for others in the wider society throughout their future lives. Both teachers and researchers need to look closely at processes—and talk to learners—if they are to understand why they do what they do. Particular circumstances matter too. Attempts to impose uniformity in education inevitably founder as children arrive at school with different experiences, expectations, and ideas, a reality which we neglect at our peril. Theoretical coherence, although problematic, is nonetheless essential. Teachers' decisions need to be informed, not only by their understanding of the particular experiences, strengths, and needs of their students, but also by a clear sense of the subject matter to be learned and the processes of human learning. This is particularly important in an area such as literacy where much practice rests on shifting conceptual sands. To move practice forward, we need a whole, coherent picture of a dynamic process in action.

Goodman will never find favour with those with small measuring sticks and small minds. However, as this book shows abundantly, he has immeasurably enlarged our ideas of what it is to learn to read and how we can best help students to do it.

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