Understanding Reading: Multiple Perspectives, Multiple Insights

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One of the problems with advocating for multiple perspectives is that it sounds too liberal, too politically correct. Everyone believes there are at least two sides to an issue, don't they? What critical educator in their right mind would present things as if they were the gospel truth?

I'm going to argue that even if you buy into the notion of multiple perspectives, it is important (probably even more so) to ask, "Why do I hold this belief?" "Where do I think multiple perspectives get us that single perspectives don't?" Advocating for multiple perspectives is not unproblematic even for those of us who believe in it. Without a doubt, multiple perspectives complicate what we know and thus complicate curriculum. To explicate what I mean I'm using a review of the insights gained from reading research over the last 40 years as an example.

A Linguistic Perspective. In 1963 when Charles Fries wrote his famous book, Linguistics and Reading, reading was viewed as a perceptual process. It started by identifying the letters and turning these into sounds (often called *inner speech*). Mentally, readers listened to these translations and made sense of them (much as they would listen to oral speech). Reading comprehension wasn't an issue. If you could comprehend speech, you could comprehend text.

This perspective held that phonics is the entry point to reading. The first thing that any reader had to do was to turn letters (*graphemes*) into sounds (*phonemes*). Since this was tricky business in that there were 26 letters and 44 sounds, it was best to do this by teaching high-frequency letter patterns (called *word families*) like the –at family, which would in combinations with consonants generate words like 'nat,' 'sat,' 'mat,' 'rat,' 'cat,' and so on. The assumption made was that there is an order in language itself to the way it is best learned. Linguistic readers that were developed during this time were *controlled vocabulary texts* of the 'Nat sat on a mat' variety. Needless to say, creating a story that was worth reading (much less discussing) using only '-at words' was almost an impossible feat.

There is, of course, another problem a phonetic approach to reading encountered. Lots of words in the English language are not phonetically regular. Even more problematically these words show up often in any piece of running text. Further, many of these words are almost meaningless by themselves; rather, they mark the fact that a noun is coming (like *the* and *a*) or alert readers to the beginning of a prepositional phrase (like 'in,' 'on,' 'into,' 'for'). To cope with this problem linguists tabulated the frequency of words which occurred in English usage and, for those not phonetically regular, created what came to be called *sight word lists*. It was assumed that these words should be over-learned to the point of "automacity" (by which LeBerge and Samuels [1974] meant that children should be able to recall these words in a stimulus-response fashion rather than through sounding

out or other "word attack skills"). (The metaphor of "reading as war," underlying a phrase such as "work attack skills" is, of course, another legacy which comes out of this period, but I'll not dwell on that here.)

While early linguists studied the structure of letter-sound relationships (what is often called *phonics*, but is more properly called the *graphophonemic system of language*) in the hopes that mapping this system would unlock the mystery of language, later linguists studied lexicon (words) in relationship to grammar (the *lexico-grammatical or syntax system* of language). Still later – once the study of grammar did not prove to be able to unlock the mysteries of language learning any better than phonics — linguists began to study meaning (*semantics*) and the rules of language use in particular contexts (*pragmatics*). The systems of language (graphophonemics, syntax, semantics, pragmatics) provide a powerful conceptual framework for thinking about the complexity of language and is clearly one of the major contributions which the field of linguists has contributed to the study of reading. Innumerable scholars, researchers, and teachers continue to use this framework to think about language and language learning (and with great success, I might add).

One of the key characteristics of reading programs built using a linguistic perspective is that the structure of language is assumed to be key to understanding how to teach reading. In hindsight, given the way linguists went about developing their discipline (first they studied phonics, then they studied syntax, then they studied meaning.) it is not surprising that their work, when translated by reading educators, resulted in a building block or *skills* approach to teaching reading (often containing 3 skill areas – first, phonics; second, grammar; third, comprehension). While individual reading lessons typically included work in all three areas, it is important to remember that the underlying framework is hallucinated by adults studying language in the abstract rather than from observing how children become readers on their own without the assistance of formal instruction. Under a skills model of reading, reading failure is seen as a failure to learn the right skills at the right time.

Despite ongoing challenges, neither a phonics nor a skills view of reading have really gone away. Both are clearly "the person-on-the-street" view of how to teach reading. One often hears, for example, that the reason people can't read is because teachers aren't teaching reading in a systematic fashion or that they have stopped teaching phonics altogether. While neither of these views is totally accurate (there is no approach to the teaching of reading that I know of that does not see phonics as an important cueing systems in reading), there are multiple reasons why reading educators hold multiple (or at least hold different) perspectives on the teaching of reading.

For example, many of the tenets underlying a linguistic view of reading have come under fire. In 1971, for example, Frank Smith concluded that *reading is only incidentally visual*. He used an old experiment by Cattell (1886) to demonstrate that in 1/100th of a second, readers could read the sentence, "You should be able to read this," but only 5 to 7 letters in a string of random alphabetic letters. The more meaningful the print cluster (from blends /str/ to words to sentences) the more text could be read.

More recently, linguists from the University of Massachusetts (2005) have found that all

the graphic information readers really need to read print is the first and last letter. To prove their point, they argue, most of us can read this paragraph with little or no difficulty:

I cdnuolt blveiee taht I cluod aulaclty uesdnatnrd waht I was rdanieg. According to litnusiqs, it deosn't mttaer in waht oredr the ltteers in a wrod are, the olny iprmoatnt tihng is taht the frist and lsat ltteer be in the rghit pclae.

While consonant letters are more consistent than vowels when it comes to letter-sound relationships, these same linguists have found that we can read without vowels too. But, and this is a big BUT, we need that first and last consonant.

Not many readers can tell you why words go where they do in a sentence nor can they name the parts of speech. Despite this, Noam Chomsky (1965) argued that *our intuitive* sense of syntax is one of the most powerful cueing systems in language. While he was right on that score, he was wrong in his proclamation that transformations in syntax can explain comprehension.

Using grammatically very complex sentences, Chomsky stunned the world by laying out in a tree diagram the kind of mental transformations that a reader would have to make in order to be able to say that he or she comprehended the sentence. In one fell swoop Chomsky destroyed the behaviorism (the notion that language was learned word by work in stimlus-response fashion) and left little doubt in people's mind that a linear processing of the words in a text had any chance of explaining comprehension.

Kenneth Goodman (1980) took it upon himself to show that while Chomsky was essentially right about syntax he was also essentially wrong about syntax and its relationship to comprehension. Specifically, Goodman took issue with Chomsky's claim that an understanding the syntactic system of language directly leads to an understanding of comprehension. To make his point, Goodman constructed a story which began "Barpie was proving his kump." Goodman purposefully used nonsense words to demonstrate that our intuitive feel for language allows us to answer questions without really comprehending what it is we are reading. If we imagine a worksheet someone might create to check comprehension, the result would be that we would have little or no difficulty answering the question, "What was Barpie proving?," but understanding what a 'barpie' was and what actions 'proving' represented would be completely another matter. Chomksy also studied young children and much to his surprise found that they produced sentences every bit as complex as those which adults produce. Equally surprising to Chomsky was the fact that children could understand sentences as complex as the ones they produced. In lieu of a stimulus-response or a behavior view of language learning, Chomsky hypothesized that humans were born having a "Language Acquisition Device" (LAD) in their heads which "wired" them for language learning. Not surprisingly, psychologists did not find Chomsky's LAD a very satisfying explanation (they called it "a black box") as it neither addressed where such a device was located nor how such a device worked (that is, what specifically it did).

A Psycholinguistic Perspective. The net result of Chomsky's thinking, however, was

that a new field of study was created. Psycholinguists, as they called themselves, quickly divided the task of language study. One group was interested in language comprehension and developed what became known as the derivational theory of complexity. This theory held that the number of transformations (from passive voice to active voice, for example) that were needed to get from the surface structure of the text (the way a sentence was read or spoken) to the deep structure of the text (the meaning or more specifically, how the sentence was encoded in memory) was an index to the difficulty we as language users would have in processing the text. As a result of English educators taking this work directly to instruction a whole generation of students learned to hate the subject of English. Some, but very few, did learn to diagram sentences (using 'idea units' or what psycholinguists called propositions [PLAY, JOHN, BALL]) and improve their writing as a result. Despite the fact that, over time, it was generally agreed that students didn't need to become 'little linguists' in order to learn language (hence, why diagramming sentences is no longer often done in English classrooms), the work of this group of psycholinguists greatly facilitated the work of cognitive psychologists later on, a story I will tell once we get there.

Another group of psycholinguists looked at language acquisition (see Brown, 1970). By studying young children this group established that *language learning is rule-governed and occurs in distinct stages* (from one-word utterance to near proficiency by kindergarten). Specifically, *children did not learn language through imitation, but rather learned language by being active participants in a language community*. From exposure to language in use, children inferred, for example, a past tense in such constructions as "I goed to the park" and "I eated breakfast."

What was important about all of this work was that language users and language learners were seen as agents in language learning rather than passive recipients of language. Language wasn't acquired so much as invented from the inside out. Shirley Brice Heath (1983) saw any instance of language in use as a language event (a terms she preferred to "a language act") make up of a massive number of what Frank Smith (1981) termed demonstrations (with demonstrations being everything from what wording one uses to make one's point, the tone one uses to get one's message across, the gestures one adds to emphasize the point being made, the attitude that is embedded in the way the message is stated, the physical stance one assumes, etc.). M.A.K. Halliday's work (1975, 1982) complicated as well as made the notion of demonstrations even more powerful by showing that any language event provided language learners the opportunity to learn language (by which he meant learn how to use language to get things done), learn about language (by which he meant learn its linguistic features such as letter, words, syntactic patterns), and learn through language (that is, learn or get smarter about things in their world and how they work).

While Harste, Woodward, & Burke called themselves *socio-psycholinguists*, their studies of young children (1984) showed that what was true for oral language was also true for written language. Specifically, *which of the demonstrations in a written language event learners attend to depends on the interest and experience of the language learner rather than the age or cognitive stage the child is thought to be in (as was the typical Piagetian*

hypothesis researchers at the time were testing). These same researchers hypothesized the existence of *a linguistic data pool* in which the experiences derived from reading, writing, speaking and listening became resources for subsequent encounters with language, regardless of whether the first encounter was reading and the second encounter speaking (or any other combinations of *the expressions of language* – reading, writing, speaking or listening – that one could think of). Their studies of early literacy complicated the study of language even further by suggesting that *meaning-making in reading and writing involved the orchestration and allocation of meaning across* multiple sign systems (art, language, mathematics, etc.).

A third group of psycholinguists studied reading specifically. Goodman (1967) hypothesized that because reading, like other expressions of language – speaking, listening, and writing – was first and foremost an instance of language, anything which could be said about language should hold true for reading. Just as "mistakes" in oral language could be used to understand the rule systems that children were inventing while learning language, so "mistakes" in reading (Goodman called them miscues) could be used to understand the cue systems involved in reading.

Goodman (1965) found, for example, that when readers read words in the context of a story as opposed to reading words on a word list, they recognize and read many more words correctly. Goodman argued that this was so because there were many more cues available to the reader, with the primary cuing systems being semantics (meaning-making), syntax (the flow of language), and graphophoemics (letter-sound relationships). Building on Goodman's work, Carolyn Burke (1969) argued that the very complexity of the reading process supports the reading process. In the sentence, "The girl ran down the _____," word order (syntax or what some linguists call the lexico-grammatical system) allows the reader to predict that the missing word is a noun. What the reader knows about the world narrows the choices to sensible things – road, sidewalk, street. If the missing word had a 's' showing as the first letter, this information would further narrow the choices the reader had to made. While reading was for Goodman (1967) "a psychologists), it was far from a free-for-all.

Frank Smith (1971) argued that one of the reasons children grew up learning to talk like humans rather than imitate the sounds of the air conditioner was that meaning was central to language learning. Like oral language, reading was not something one was taught, but rather something one learned to do through exposure to written language in meaningful situations; the "natural" consequence of growing up in a literate society. Gorden Wells (1986) studied children's language learning over time and concluded that most of what we know about language is learned from being in the presence of others rather than from formal instruction. Language learning was often talked about as occurring "naturally" (a concept with which critical theorists took serious issue as they saw language as ideological and always doing something in someone's interest). Despite the recent grips of critical theorists, the social principles underlying language learning (formally called social constructivism) still hold as do our understanding of many of the key processes involved in reading and language learning more generally (processes such

as predicting, confirming, risk-taking, etc.). Methodologically, during this period, the profession learned that taking a close look at failure was just as important as understanding success. Carol Chomsky (1972), for example, found that when readers depend too heavily on visual information in the text, the reading process breaks down.

The psycholingusitic perspective had a number of influences on the field of reading. First, it encouraged reading educators to value literacy experiences that focused on making-meaning. Children were invited to read real books as well as write their own stories. Even further, psycholinguistics helped educators appreciate children and their efforts at language learning. Errors were seen as generative; evidence of the child being a risk-taker (something you had to be, psycholinguists posited, to learn language) and a window to which cues children were and were not attending. Rather than implement prescribed programs, teachers were seen as professional "kidwatchers" (Y. Goodman, 1978) and expected to design curriculum based on what Marie Clay (1979) called "the known," or what the child was able to do based on teacher observations of actual engagement in the reading and writing process.

A Cognitive Perspective. While psycholinguists did much to help us understand the nature of in-process reading (what the mind was doing while the eyes were actually looking at print), what was not clear was how the process of comprehension took place. Cognitive psychologists like Stein & Glenn (1979), Rumelhart (1980), and Kintsch (1974) focused on text comprehension by hypothesizing that the structure of idea units in a text provides a key insight into how the comprehension process works. Building from the work that had been done in linguistics, cognitive psychologists propositionalized text (a proposition being a basic unit of meaning RUN, JOHN, FAST) and attempted, by using a computer, to show how idea units (or propositions) might be processed, discarded, or reprocessed again and again in memory in order to make sense of a text (the latter forming a *macro-structure* surprisingly similar to that which a reader would produce if he or she were asked to summarize a story in a single paragraph form). Diane Schallert and Robert Tierney (1982) threw a clinker into this program of research by propositioning a text that was actually being used by a teacher in a classroom. What they found was that while the structural elements of a text are important, what a teacher emphasizes as important during instruction dramatically alters which propositions or idea units students retain. Computer simulations of reading comprehension had real limitations for understanding reading comprehension in classroom contexts. In order to theorize the process of comprehension, researchers (Anderson & Pearson, 1984; Rumelhart, 1980) introduced the notion of schema theory. Schema are complex structures in the brain containing information we have stored from the various experiences we have had. From having gone to various kinds of restaurants we have a variety of schema, from what it is like to eat in a restaurant where a maitre d' greets you to what it is like to eat in a restaurant like McDonalds. Schema theory hypothesized that in order for something to be learned it has to be tied into a particular schema and it is this linkage which makes it accessible and memorable, in short, learned, a status random bit of data never achieved as they had no mental home, so to speak. Schema theory also suggested that because of the interconnectedness of schema, if we were under attack in a restaurant and the only thing available to us was the silverware we were given, we could

access our silverware schema, and providing we had actually used a fork to stab a piece of meat, see silverware as a way of protecting ourselves.

According to schema theorists, comprehension of a text occurs when we are able to find slots within particular schema to place all of the bits and pieces we encounter in a text. To say that we have comprehended a text is to say that we have found a schema or home for the ideas in the text

Schema theory not only attempted to account for comprehension but also for learning. Because schema are dynamic (the best metaphor is a relay board in which various combination of lights go on and off; the worst is a filing system in which we place things once and for all), when we encounter anomalies (things that don't fit), we need to search our schema to find or create new connections which make sense. Key processes in learning involve *accretion* (adding new things to an existing schema), *tuning* (making minor corrections to things we already know), and finally *restructuring* (reconfiguring an existing schema with the end result that we see things differently).

Restructuring is major and doesn't happen very often. Probably the best example I can think of is what the reading profession had to do as they moved from a linguistic to a psycholinguistic view of the reading process. This shift was monumental. Sad to say, some members of the reading profession still haven't quite made it.

A Reader Response Perspective. Given the fact that cognitive psychologists had to preprogram computers with thousands of bits of information in order for the computer to simulate what the brain did during comprehension (and then the results still weren't all that good), researchers became more and more interested in readers rather than texts. One of the people rediscovered during this period was Louise Rosenblatt (1938, 1978). From her studies of how readers made sense of English literature, Rosenblatt had proposed a transactional view of the reading process. Basically she argued that the coming together of a reader and a text resulted in a new text or, metaphorically, "a poem." Poems differed in part by the stance which the reader was asked to take up. When reading factual materials, Rosenblatt argued, readers need to assume an 'efferent stance,' which she described as a readiness to latch onto bit and pieces of information which they could walk away knowing. When reading literature, however, Rosenblatt argued, readers need to assume an 'aesthetic stance' in which they paid particular attention to the "livedthrough" experience of the text. Her basic thesis was that in order for the reading process to work, readers need to understand that the stance they take up is dependent on the nature of the text being read. While semioticians like Umberto Eco (1970) helped us understand the difference between between "efferent" and "aesthetic" readings by taking about open and closed texts, David Bleich (1978) elaborated the notion of stance by arguing that it is not good enough only to teach students to respond to text (analytically, metaphorically, aesthetically, intertextually, philosophically, or "efferently") but that English language arts educators also had to teach them that they have agency, or a choice in terms of the kind of response they wish to make under different conditions. While Iser (1980) argued that a sense of unity drives the reading process, Wayne Booth (1988) argued that reading, and literacy more generally, is a matter of morality and ethics in that our values determine "the ultimate readings" we

make.

Up until this point, reading had been seen as an interaction between readers and texts with the assumption that if one could map both what the reader knew and what idea units were in the text, one could understand reading comprehension. While reader response theorists made the profession think about comprehension in a more complex fashion, they highlighted the importance of the reader's role in the reading process. Two of the major insights coming out of this period were: *To understand reading is to understand the* "lived-through" experiences of the reader. While great books complicate our lives, our lives ought to complicate great books in turn. Using Hemmingway's For Whom the Bells Toll (1995) as a metaphor for this period, and in spirit of Literature (with a capital L), "the text" no long reigned supreme (nor, for that matter, did researchers who only had their nose in texts).

As a result of understanding the reading process from a reader response perspective, reading educators introduced the notion of literature study as a regular part of their classroom reading program. Students read and discussed novels rather than answered comprehension questions. Not only were worksheets devalued, but children's literature – real stories that made real sense – began to dominate instruction. At the height of the reader response movement the sales of children's trade books (the kind you find in libraries) shot up 500 percent.

A Sociolinguistic Perspective. Sociolinguistics as a discipline developed in parallel with psycholinguitics. Building on Chomsky's thinking, and yet disrupting the major thinking of the day, were a whole host of linguists who were studying dialects (Labov, 1972; Baratz & Shuy, 1969). They concluded that dialects are real language in that there are syntactic rules that operate to form predictable sentence structures like "I be going now." Their argument was that dialects are not inferior or bastardized forms of the mother tongue, but rather just as organized and predictable as Standard English if you know the rules. With tongue in cheek, they further argued that what makes one form of language "Standard" and another form of language "a dialect" was not in the quality of rules or the eloquence with which you could use it to communicate, but rather which form had an army behind it!

As sociolinguists mapped the various dialects of groups in the United States, reading educators used the dictionaries they were creating to rewrite stories in the dialect of the community in which they happen to be working, assuming that these adaptations would make learning to read easier for speakers of this dialect. After years of research their conclusion was that *rather than rewrite stories into dialect (which dialect speakers often find confusing), teachers need to stop correcting dialect-induced miscues and get on with the business of teaching reading.* After all, researchers like Rudine Sims Bishop (1971) argued that these language users are only doing what all good readers are expected to do; that is, actively bringing and applying their knowledge of language to the reading process.

Sociolinguists also helped us rethink the notion of context. Prior to the advent of a sociolinguistic perspective, when educators talked about "context" in reading they

typically meant the print surrounding particular words on the page. By the end of the decade of the 80s, context included not only the words on the page but the child's instructional history (Harste & Burke, 1977) as well as the kinds of instructional and non-instructional interactions which take place among students and teachers in the classroom (Bloome and Green, 1984).

Halliday's theories of functional grammar (1973) disrupted the linguistic study of language by pointing out that most of the sentences spoken in English – what he called "language in use"-- were not grammatical. People by and large communicated with each other in utterances that were distinctly ill-formed from a grammatical perspective. His work seriously questioned the utility of trying to understand language by understanding idealized instances of language from either a linguistic or a psychological perspective. Instead of trying to understand language use and learning via a study of grammar, Halliday said to understand language it is necessary to understand the contextual and social nature of meaning-making. Language did not come into existence because of one language user but because of two who wanted to communicate to get things done. Semantics (meaning making) and pragmatics (the rules of language use in particular contexts of situations), rather than graphophonemics and syntax, are the key systems of language to study if the goal is to understand language and language learning.

Shirley Brice Heath's work (1983) supported Halliday's view by showing that *literacy is a cultural construction*. The two different communities she studied in-depth had "different ways with words." *What constituted "literacy" in one community differed from what constituted "literacy" in the other community*. Further, she showed that both communities defined literacy differently than what the schools serving these communities thought literacy to be.

ociolinguists helped us understand that school success was often the result of children learning to "do school" (that is, learning to talk and use language in ways the school sanctioned) and not necessarily an indication of their innate language ability. In response to these insights reading and language arts educators began to value authentic reading and writing activities (the type real language users encounter outside of school), reader response (where children could make personal and cultural connections to what they were reading rather than everyone answering the same set of workbook questions), and collaborative learning (where, if language learning were really a social event, children would have opportunities to learn from each other).

A Critical Perspective. Building off of sociolinguists, critical theorists like Street (1995) argue that there is not one literacy but multiple literacies. Not only do different communities have different definitions of literacy but they induct their children into literacy very differently. Literacy is always situated and kept in place by the social practices which are operating in a particular culture or context of situation. For this reason, reading is first and foremost a social and cultural event in which one has to read the world in order to understand or read the word (Freire, 1985). Critical theorists argue that rather than talk about language in terms of letters, words, sentences, or texts, we ought to talk about language in terms of discourse to signal the fact that all language is ideological (motivated in favor of someone's interest to get that work done). Critical

theorists see larger social forces at play and so are interested in what *frames* readers are asked to take on when they engage in the reading process. *Because discourse is never neutral, readers need to become text analysts who understand the relationship between language and power*. Central, then, to being a reader is being a text analyst (Luke & Freebody, 1997). Understanding who language serves and who it doesn't serve has to be part of what it means to be literate in the 21st Century. *Language is always about power*. *To be literate is to understand how you as a reader are positioned by text (including the identity you are being asked to take on) as well as to understand how texts do the work they do.* From a visionary standpoint, critical literacy educators say that *in the 21st Century children need to be agents of text rather than victims of text*. While much more could be said about critical literacy, the chapters in this volume are designed to elaborate this perspective as well as support teachers in making their language arts programs critical.

Multiple Perspectives: Some Benefits: Table 1 summarizes, by the various disciplines involved, what I see as key insights into reading:

--INSERT TABLE 1 ABOUT HERE—

From my perspective, this list of insights into reading leave little doubt that we as a profession have benefited greatly from the multiple perspectives that researchers have brought to the study of reading. Although there is more to learn, what we already know is substantial.

That having been said, however, there seems to be a commonly held perception that multiple perspectives are inherently good; that all perspectives are valid, that somehow looking at things from all sides characterizes the educated person from the uneducated one.

While this review does little to refute any of these views it does verify that as new perspectives have been brought to bear on reading, old ideas often have had to give way. While competing perspectives may seem equally valid when first purposed, over the long-haul some perspectives prove more robust. Some take on increased significance as we continue to learn more and think more deeply about reading. An example is Wayne Booth's insight (1988) that literacy and "ultimate readings" are finally always a matter of ethics. One argument that can be made for why multiple perspectives are important, then, is that, over time multiple perspectives become a self-correcting device.

Also apparent from reading through this list is the fact that not all perspectives are equal. Some are clearly more powerful than others in that they are more "robust"; they explain more of what constitutes our ever-changing and more complex insights into "reading." While everyone may have a right to their own opinion, *multiple perspectives invite* people to continue to grapple with fundamental issues, thus disrupting the tendency to provide easy answers to complex problems.

A third benefit of multiple perspectives, and the one I personally think is the most

powerful, is that *implicit in the notion of multiple perspectives is the expectation that no matter what is known there is still yet another perspective from which to grow.* I like to think of this "yet-another-perspective" as a potential; something yet to be; the hope that someday we will understand.

Multiple Perspectives: Some Caveats. Given these benefits of multiple perspectives, my advice is that rather than to see any of the insights in Table 1 as "fact," it is best to see them as hypotheses in need of further test. Charles Sander Peirce (1931-58), one of America's greatest philosophers, says facts are most productively thought of as beliefs at rest. By this he means that things often only look like fact until someone gets up the gumption to really study them closely.

This review of what we know about reading lends credence to Peirce's assertion. As new disciplines have turned their attention to reading, older notions about reading -- seeing it as largely a perceptual process, for example -- have needed to be rethought. My second caveat is that by ordering this review chronologically readers should be aware that I have reified and conflated the twin notions of multiple perspectives and progress. This is problematic as it suggests that these two lenses are inherently linked. While both "progress" and "multiple perspectives" might be nice metaphors to believe in, rest assured that not every step taken (even in the history of thought about reading) has been forward. This is, in fact, what is wrong with this review of literature specifically, as well as all reviews of literature more generally. Reviews sand off all of the edges and give the sense that there has been a straight line of progress from there to here. Gone are all the catfights and with them the stories and often sagas of how new ideas came to be. Reviews of literature are often dead (if not deadly) whereas the history of ideas and the politics of scholarship are alive (and often quite lively).

The issues of "evolution versus creationism" and "No Child Left Behind legislation" are cases at hand. Both movements disregard much of what is currently known. Rather than being new perspectives they seem disruptive, an attempt to revive early perspectives on reading.

While it is hard to see these movements as "progress," they are, nonetheless, good examples of the relationship that always exists between language and power. Critical educators, for example, have seen these issues as an opportunity to study larger social forces at play and how these get shaped into educational policy regardless of what scientifically is known (see Coles, 2003; Goodman, Shannon, Goodman, & Rapaport, 2004; Garan, 2004 as recent examples). As a result of this work not only have such phrases as "the politics of literacy" taken on new significance, but science and scientists are no longer seen as neutral observers, above reproach. They, too, have theoretical and political agendas even when they aren't cognizant of them or try to make us believe they are neutral.

My last caveat relative to multiple perspectives is in that while we may be smarter relative to our understanding of reading, this does not mean that either the actual teaching of reading or the actual process of learning to read has changed. This gap between

rationalizing and doing is what is called "the scholar's fallacy," the belief that because some new insight has been explicated and articulated a real change in the world has occurred. Think about what we know about reading and the dominant mode of instruction being advocated under No Child Left Behind legislation, for example. Strong sociopolitical forces seem to be able to trump knowledge. So, while multiple perspectives might be valuable, we need continually to ask ourselves whether multiple insights have really made a practical difference in the lives of teachers and children. This is, of course, where you come in and why what social practices you put in place in your classroom make a difference.

So, let me end by saying that even for insights which have both stood the test of time and are influencing practice in significant ways, what is important to remember is that they are just belief at rest. If we really play our cards right, someday -- say another 40 years from now -- when someone updates this review of reading, all of the insights we currently hold to be true will have been found, if not wanting, hopefully sharpened. There within, it seems to me, lies the precariousness as well as the promise of multiple perspectives.

Table 1. Key Insights into Reading: Perspectives from Different Disciplines

A Linguistic Perspective.

The systems of language (graphophonemics, syntax, semantics, pragmatics) provide a powerful conceptual framework for thinking about the complexity of language.

Reading is only incidentally visual. Our intuitive sense of syntax is one of the most powerful cueing systems in language.

A Psycholinguistic Perspective.

The number of transformations that are needed to get from the surface structure of the text to the deep structure of the text is an index to the difficulty we as language users have in processing the text.

Language learning is rule-governed and occurs in distinct stages.

Children do not learn language through imitation, but rather learn language by being active participants in a language community.

Language users and language learners are agents in language learning rather than passive recipients of language.

Language isn't acquired so much as invented from the inside out.

Any language event provided language learners the opportunity to learn language, learn about language, and learn through language.

Which of the demonstrations in a written language event learners attend to depends on

the interest and experience of the language learner rather than the age or cognitive stage the child is thought to be in.

Meaning-making in reading and writing involves the orchestration and allocation of meaning across multiple sign systems.

Because reading, like the other expressions of language – speaking, listening, and writing – is first and foremost an instance of language, anything that can be said about language should hold true for what can be said about reading.

When readers read words in the context of a story as opposed to reading words on a word list, they recognize and read many more words correctly.

The very complexity of the reading supports the reading process. Meaning is central to language learning.

Reading is not something one is taught but rather something one learns through exposure to written language in meaningful situations.

Most of what we know about language is learned from being in the presence of others.

When readers depend too heavily on the visual information in the text, the reading process breaks down.

A Cognitive Perspective.

The structure of idea units in a text provides a key insight into how the comprehension process works.

While the structural elements in a text are important, what a teacher emphasizes as important during instruction dramatically alters which propositions or idea units students retain.

In order for something to be learned it has to be tied into a particular schema and it is this linkage which makes it accessible and memorable, in short, learned.

Comprehension of a text occurs when we are able to find slots within particular schema to place all of the bits and pieces we encounter in a text.

A Reader Response Perspective.

The coming together of a reader and a text results in a new text or, metaphorically, "a poem."

In order for the reading process to work, readers need to understand that the stance they take up is dependent in part on the nature of the text.

A search for unity drives the reading process.

Reading, and literacy more generally, is a matter of morality and ethics in that our values determine "the ultimate readings" we make.

To understand reading is to understand the "lived-through" experiences of the reader.

While great books complicate our lives, our lives ought to complicate great books in turn.

A Sociolinguistic Perspective.

Dialects are not inferior or bastardized forms of the mother tongue, but rather just as organized and predictable as Standard English.

Rather than rewrite stories into dialect (which dialect speakers often find confusing), teachers need to stop correcting dialect-induced miscues and get on with the business of teaching reading.

Context includes not only the words on the page but the child's instructional history as well as the kinds of instructional and non-instructional interactions which take place among students and teachers in the classroom.

Language did not come into existence because of one language user but because of two who wanted to communicate to get things done.

Semantics and pragmatics, rather than graphophonemics and syntax, are the key systems of language to study if the goal is to understand language and language learning.

Literacy is a cultural construction.

What constitutes "literacy" in one community differs from what constitutes "literacy" in another community.

A Critical Perspective.

There is not one literacy but multiple literacies.

Literacy is always situated and kept in place by the social practices which are operating in a particular culture or context of situation.

Reading is first and foremost a social and cultural event in which one has to read the world in order to read the world.

Rather than talk about language in terms of letters, words, sentences, or texts, we ought to talk about language in terms of discourse to signal the fact that all language is ideological (motivated in favor of someone's interest to get that work done).

Because discourse is never neutral, readers need to become text analysts who understand the relationship between language and power.

Language is always about power.

To be literate is to understand how you as a reader are positioned by text (including the identity you are being asked to take on) as well as to understand how texts do the work they do.

In the 21st Century children need to be agents of texts rather than victims of text.

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