Politics (of Reading) Makes Strange Bedfellows

by Mark S. Seidenberg

In 2011, Wisconsin Governor Scott Walker created the Read to Lead Task Force to develop strategies for improving literacy. Like many states, Wisconsin has a literacy problem: 62% of the eighth grade students scoring at the Basic or Below Basic levels on the 2011 NAEP; large discrepancies between scores on the NAEP and on the state's homegrown reading assessment; and a failing public school system in the state's largest city, Milwaukee. The task force was diverse, including Democratic and Republican state legislators, the head of the Department of Public Instruction, classroom teachers, representatives of several advocacy groups, and the governor himself. I was invited to speak at the last of their six meetings. I had serious misgivings about participating. Under the governor's controversial leadership, collective bargaining rights for teachers and other public service employees were eliminated and massive cuts to public education enacted. As a scientist who has studied reading for many years and followed educational issues closely I decided to use my 10 minutes to speak frankly. What follows is a lightly edited transcript of my remarks.

My name is Mark Seidenberg. I am the Hilldale and Donald O. Hebb Professor in the department of psychology at University of Wisconsin–Madison. Thank you for inviting me to participate. As a researcher I have studied reading and how children learn to read for over 30 years. As an educator, I've taught thousands of college students about reading and language. I am the father of two children who attend Madison public schools.

I am also a co-author of a recent National Academy of Sciences report on older adolescents and adults with low reading abilities (Committee on Learning Sciences, 2012). According to our report, more than 90 million adults lack adequate literacy skills. The consequences for these individuals and for society are vast, as we all know. They cannot participate fully in the workforce, manage their own health care, or do much to advance their own children's education. Our report summarizes evidence that teaching adults to read is extremely difficult; the available methods are both ineffective and expensive.

I am here, as I know you are, because I believe we could and should be doing much better, in Wisconsin and the United States. There is a way to address the problem of adult illiteracy—prevention. Do a better job teaching children to read in the first place.

Educators are not the only people who think about how people learn to read. There is a vast body of scientific research on reading conducted by scientists, like me, in disciplines including psychology, neuroscience, and cognitive science. We investigate how children learn and develop. We study thinking, reasoning, language, memory, seeing, hearing, attention—all of the human capacities that underlie reading and other kinds of intelligent behavior. We study people in our labs, in schools, in prisons, and on the Internet.

You might not have heard much about this research because scientists usually aren't included in the conversation. There is no scientist on this task force, for example. Here is what you are missing:

Psychologists have been studying reading since the 19th century. We focus on how children learn to read, how skilled reading works, and the brain structures that support reading. We have identified what makes learning to read hard for many children and impairments that underlie reading and learning disabilities.

This research is conducted by scientists in Wisconsin and every other state. It is studied in dozens of countries around the world, with different languages and writing systems. This research has yielded a remarkably consistent body of findings. They do not depend on the findings of any one lab or funding agency.[1]

Much of this research is about how beginning readers acquire basic skills and about how the ability to comprehend different kinds of texts, for different purposes, develops in later grades.

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Very little of this research has had any impact on how reading is taught. There is an enormous disconnect between science and educational practice. We occupy two different worlds. I believe this is an enormous waste.

Many people on the education side dismiss this research as completely irrelevant to their mission. Teachers aren't exposed to this research as part of their training. From the schools of education, the attitude is *move along, nothing to see here*.

What is the result? The way reading is taught makes learning to read much harder than it should be for many children.

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[1] I was alluding to the belief that scientific findings about reading were obtained in research funded by Reid Lyon, an official at the National Institute of Child Health and Human Development, as part of an anti-education political agenda. See Allington, R. L., & Woodside-Jiron, H. (1999). The politics of literacy teaching: How "research" shaped educational policy. *Educational Researcher, 28*, 4–13.

And it makes it harder to become proficient. That is truly a way to leave children behind.

Educational practices also place unreasonable burdens on teachers. Here is an example: It is an article of faith in educational circles that children have different learning styles. Some are auditory learners, some are visual-spatial learners, some are multisensory learners, and so on. The teachers' task is to identify the learning styles of their students and tailor teaching appropriately. This is an impossible burden because even the best teacher's time and resources are limited. It is also pointless: systematic studies show that although children do, of course, differ—some learn more quickly or slowly, for example—it is not that their brains work in fundamentally different ways (Pashler, McDaniel, Rohrer, & Bjork, 2008).

The exception is children with developmental disorders such as dyslexia. Dyslexia is a condition that interferes with learning to read. It has neural and genetic bases. These children's brains really are different, creating serious learning problems. Teachers are expected to develop activities tailored to these children; but the teacher probably doesn't know what dyslexia is because it is not part of his or her training.

In my field we have identified the behaviors that are characteristic of dyslexia and brain structures that are affected. We also know that dyslexia can often be successfully treated if it is identified early. On the education side, people are still debating whether dyslexia exists, and if it does, whether that should have any impact on classroom practices (Elliott & Gibbs, 2008).

In our studies we see children we call *instructional dyslexics*. These children exhibit behaviors that are characteristic of dyslexia, but they do not actually have the disorder. It only seems like they have dyslexia because their classroom experiences have been so ineffective. Their reading often improves dramatically with attention from a parent or reading specialist who provides instruction that didn't happen in the classroom. Many of those 90 million adult poor readers I mentioned at the beginning have dyslexia but their condition was unrecognized and untreated.

I know that people like me are saying these things to people like you in many meetings at many places around the country.

At this point, the educators start to boil. They feel disrespected and patronized. Teachers know more about teaching children than laboratory scientists. Good teachers discover what works through experience on the front lines. Raising questions about how reading is taught can be seen as disparaging teachers themselves. If there is a problem—and some educators insist there isn't one[2]—many would argue it could be solved by getting out of teachers' way. First teachers had to cope with No Child Left Behind, which put the federal government in their classrooms. On top of that they get directives from the state department of public instruction, the local school district, and their principal. Now the scientists are telling them what to do. Perhaps everything would be fine if we would only let teachers teach.

As a scientist, I am not challenging anyone's integrity, commitment, motivation, effort, sincerity, or intelligence. But scientists *are* challenging educators to examine their beliefs and open their eyes. The single most influential educational theorist in America is a man named Lev Vygotsky, who lived in the Soviet Union, wrote in Russian, and died in 1934. He never saw an American classroom, or a television, computer, calculator, video game, or smartphone. It is as though we haven't learned anything relevant to educational theory since the 1930s. Imagine if physicians still relied on the medical authorities of that era.

If teachers really could figure out how reading works just by observation and experience, we would not be having this discussion. But what we can learn about reading from observation is limited. Most of what we do when we read is subconscious. You cannot inspect what happens in your brain while you're reading. All you know is the result: whether you understood the text or not and whether you got the information you were seeking. People's intuitions about reading are limited and often misleading. They are also biased: what people observe is affected by what they believe. That is why we conduct research—to understand components of reading that would otherwise be hidden from view and to do it in an objective way.

We aren't trying to tell people how to teach. We are struggling to get the science into the conversation—about teacher training, curriculum planning, and policy making.

In America we talk about the *achievement gap* for minority and low income children. We should also be talking about the *teacher education gap*. Prospective teachers are socialized into a set of outdated beliefs about children, learning, and reading. Some of these beliefs are flatly contradicted by systematic research. Some are correct but don't cover enough ground. Few prospective teachers are exposed to modern research that is relevant to their jobs. They are unprepared to critically assess scientific claims, leaving them vulnerable to fads and fallacies. Let me make it clear that I do not fault teachers, many of whom are truly heroic. However, I do fault the people who *teach* the teachers, and teacher organizations with anti-science attitudes. There are many who teach science in the classroom but somehow think science doesn't apply to their own profession.

The differences between science and education are vast. The culture of education is self-perpetuating. Little will change if we rely on change from within. I therefore endorse the Massachusetts model, whereby the bar is raised on entry into the profession via the certification process. A certification exam, such as the Massachusetts Test for Education Licensure, Foundations of Reading, includes information that teachers need to know. If they need to know it, schools will have to teach it. If traditional schools of education do not teach it, the

[2] There is substantial literature suggesting that literacy problems in the United States are exaggerated because tests such as the NAEP are too difficult. See, for example, Berlak, H. (2003). The "No Child Left Behind Act" and teaching reading. Educational Policy Research Unit, Arizona State University. Available at http://edpolicylab.org

education marketplace, including the ever-broadening possibilities afforded by the Internet, will fill the gap.

This task force can also take a second important step: children who are at risk for reading failure must be identified and supported at young ages. Although it is difficult to definitively confirm a reading/learning disability in young children (e.g., 4–6 year olds) using behavioral, neuroimaging, or genetic measures, it is possible to identify children *at risk*, most of whom will develop reading difficulties unless intervention occurs, via screening that involves simple tests of pre-reading skills and spoken language plus other indicators such as family history. Few children just "grow out of" reading impairments, although that is what parents are often told. Active intervention is required.

Thank you for your time and attention. Good luck with your work.

The Read to Lead Task Force eventually endorsed both recommendations. Given the toxic political climate in our state, and a panel of stakeholders with very different views and constituencies, this outcome amazed me. For the first time in many years I felt a little hope that the political process could sometimes manage to yield consensus on an important issue. A bill was written and, with much additional politicking and tweaking, passed and signed into law on April 2, 2012. Whether its provisions will be implemented in the intended ways remains to be seen. And who will be left to teach? Wisconsin, like the rest of the United States, wants higher quality teaching. In the same year the state took constructive steps to improve teacher quality, it also eliminated teachers' collective bargaining rights, placed severe caps on salary increases, and effectively lowered salaries by requiring larger out-of-pocket payments for both health and pension plans. These steps, which are occurring in other states as well, seem likely to make an already low-status profession even less attractive to the kinds of people the state would like to attract. Teaching quality cannot be raised to exceptional levels by merely changing the certification requirements. That is about as realistic as improving literacy by merely mandating that all children be proficient readers by 2014.

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***Mark Seidenberg, Ph.D.**, is the Hilldale and Donald O. Hebb Professor in the department of psychology at University of Wisconsin–Madison.*