The Problem with Gender-Based Education

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Yesterday's New York Times Magazine featured a very long article that's purportedly about single-sex public schooling, but is really about a narrower--and much more problematic--concept of gender-based education. Gender-based education is the notion that "Boys and Girls Learn Differently"--that's even the title of a book by Michael Gurian, one of the leaders of a cottage industry that's grown up to promote the idea. Specifically, it's the idea that recent neuroscience research shows significant difference in male a female brains and that as a result educators must employ different approaches in teaching male and female students. Unfortunately, many of the arguments for gender based education are bunk--and often have more to do with outdated gender stereotypes than the cutting edge research proponents claim they're based on.

In the NYT magazine piece, author Elizabeth Weil profiles Dr. Leonard Sax, a family doctor from Washington, D.C.'s Maryland suburbs and a leading advocate of gender-based schooling. She also describes 3 different public schools implementing single-sex education--an all-male and an all-female New York City charter school, as well as a coed district school in Alabama teaching children in sex-segregated classrooms. And she does a decent job in laying out some of the key critiques of Sax's work. Sax and Gurian exaggerate the neuroscience and get some of it flat-out wrong. Much of the science they do cite is primarily descriptive--it's not adequate to serve as a guide to making decisions about teaching or policy. And they ignore the fact that variation among both males and females often far exceeds average differences between the genders.

But, since the critiques don't appear until roughly halfway through a very long article--the first part of which reads like a puff piece on Dr. Sax--many readers may miss them. Moreover, while Weil's airing of critiques gives the article an appearance of balance, she glosses over a bigger issue: There wouldn't be a "controversy" over gender-based public education at all if Sax and Gurian weren't aggressively marketing their idiosyncratic--and flawed--notion of gender-based education.

Actual neuroscientists--whose work Sax and Gurian claim to base their arguments on, though neither are themselves neuroscientists--aren't the ones banging the drum on gender-based education. In fact, many caution against trying to draw practical implications for schooling from their work. Much of what Gurian and Sax call "brain research" is still in its infancy, a long way from being able to support practical applications in education. Jay Geidd, one of the preeminent neuroscientists studying brain development in children (including gender differences) cautions that gender is much too crude a tool to differentiate educational approaches: the variation within each gender is often larger than the average difference between genders, and there's substantial overlap in the distributions.

Geidd's caution is well worth heeding even in areas where science--not just neuroscience but also other less flashy but often more relevant fields of child development research--does show real differences in boys' and girls' development. There is pretty strong evidence that preschool-aged boys develop gross motor skills faster than girls do, while preschool-aged girls tend to have an advantage in language development. As a result, boys and girls are, on average, at different levels of language and motor development when they enter school. Sax and Gurian see this as one argument for separate sex, gender-based schooling. That might be reasonable if gender were the only source of variance in young children's learning. But it's not: Young children's development is highly variable. Some 5-year-old girls might lag many boys in language skills, and some boys' motor skills might lag those of their female peers. If one is really concerned about adjusting education to variations in children's development, increased customization and multi-age groupings in early elementary school, which allow teachers to group children who are developmentally similar, regardless of age, and children to progress at their own paces, are a far better solution than simply separating children by sex.

The appetite for single-sex and gender-based educational approaches is understandable--and it's not just a manifestation of sexism. While this country does a lousy job of educating low-income and minority students generally, we do a particularly poor job of educating poor and minority boys--and there's a desperation for approaches to correct the high rates of disciplinary problems and school dropout among these young men. When folks like Gurian and Sax come along promoting single sex education as a silver bullet approach, it's no wonder some educators seize on the idea.

Unfortunately, there's no evidence that the gender-based approaches work in improving student acheivement. Even if Sax and Gurian's didn't have such a weak basis in neuroscience, a basis in neuroscience isn't enough to make an educational approach effective. Lots of educational strategies based in "cutting edge" evidence about "how students learn" have proved to be failures. What's needed are rigorous evaluations showing the approach produces positive results in practice. But Sax and Gurian's theories have never been subject to a rigorous, independent evaluation of their effectivness. There are no randomized controlled trials of gender-based educational approaches. There's even evidence that some of their recommendations are wrong: For instance, Sax argues boys will do better in school if parents wait until they're 6 to enroll them in kindergarten--a practice known as kindergarten redshirting. But researchers have studied the effects of kindergarten redshirting and found no evidence it make a significant difference for long-term educational outcomes. And, while there has been research on single sex education, a recent Department of Education meta-analysis of that research found mixed results.

Two of the schools Weil profiles--The Young Women's Leadership School (which, while single-sex, does not employ a gender-based education approach) and Excellence Charter School--do seem to be having a positive impact for the predominantly low-income, minority students they serve. But that impact has at least as much to do with their rigorous academic approach, committment to high-quality teaching, and shared culture of excellence as it has to do with the fact that they're single sex. No one disputes that single sex schooling can have benefits for some students--particularly for girls in math and science. And a single sex approach may also help educators to create the strong, shared culture and values we know highly effective schools have. But there are plenty examples of schools doing this in coed settings as well--which is good, because for the foreseeable future the vast majority of students will be attending coed schools. (Sax claims that 360 public schools nationally are single sex--but in a nation with more than 14,000 school districts and 4,000 charter schools, that's not even a drop in the bucket). Wouldn't it be nice if the New York Times devoted at least as much attention to the strategies we know are working to educate students in these settings, as it has on a faux controversy about marginal gender-based educational approaches?

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One incident described in the article deserves particular attention. Weil writes:

In his second book, “Boys Adrift: The Five Factors Driving the Growing Epidemic of Unmotivated Boys and Underachieving Young Men,” Sax credits Bender for helping focus a boy who was given a wrong diagnosis of attention-deficit disorder by telling him that his father, who had left the family, would be even less likely to return if all his mother had to report was the boy misbehaving in school.

This is shocking. Suggesting, to a child, that he in any way bears responsibility for the success or failure of his parents' marriage is despicable behavior, bordering on emotional abuse. The fact that Sax would praise an educator for doing so should cause anyone who's thinking of heeding his arguments to have serious second thoughts.

<http://www.newamerica.net/blog/early-ed-watch/2008/problem-gender-based-education-2517>

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