David Boies is the super-lawyer who represented IBM against the U.S. government, the U.S. government against Microsoft, Al Gore against George W. Bush and gay marriage against California’s Proposition 8. A man at the top of his profession, presiding over a firm of 200 lawyers, he would seem to be a metaphorical Goliath. But Malcolm Gladwell sees this literal David as a figurative David too, because Mr. Boies came from humble origins and faced mighty obstacles to success.

We learn in Mr. Gladwell’s "David and Goliath" that Mr. Boies grew up in rural Illinois, where he was an indifferent student. After he graduated high school, he worked construction. He went to college mainly because his wife encouraged him to. But the small university he attended near Los Angeles happened to have one of the country’s premier debate programs. Mr. Boies traveled more than 20,000 miles to participate in debate tournaments. He left college early to start law school at Northwestern, became editor in chief of its law review and transferred to Yale, where he received his law degree.

One of Mr. Gladwell’s best sellers, "Outliers" (2008), was about how outsize success results from arbitrary advantages and disciplined practice. Bill Gates was lucky enough to have a computer terminal in his high school when personal computers didn’t yet exist; the Beatles laboriously honed their craft in Germany before hitting the London scene. So is the story of David Boies just another case like these—of a guy who stumbled into a rigorous debate program that inculcated the skills and provided the training he would need to out-argue his law-school peers and reach the top?

Not in this book. The overarching thesis of "David and Goliath" is that for the strong, "the same qualities that appear to give them strength are often the sources of great weakness," whereas for the weak, "the act of facing overwhelming odds produces greatness and beauty." According to Mr. Gladwell, the secret of Mr. Boies’s greatness is neither luck nor training. Rather,
he got where he did because he was dyslexic.

You read that right. In a section on what Mr. Gladwell calls "the theory of desirable difficulty," he asks: "You wouldn't wish dyslexia on your child. Or would you?"

You might if you were aware that Mr. Boies himself attributes his success to his dyslexia, as do Gary Cohn, the president of Goldman Sachs, and Brian Grazer, the Hollywood megaproducer. Examples like these are the main source of evidence Mr. Gladwell marshals for the claim that dyslexia might actually be a desirable trait.

Difficulty reading is said to have forced Mr. Boies to compensate by developing skills of observation and memory, which he exploited in the courtroom. It's an uplifting story; what seems on the surface to be just a disability turns out, on deeper examination, to be an impetus for hard work and against-all-odds triumph.

Mr. Gladwell enjoys a reputation for translating social science into actionable insights. But the data behind the surprising dyslexia claim is awfully slim. He notes in passing that a 2009 survey found a much higher incidence of dyslexia in entrepreneurs than in corporate managers. But this study involved only 102 self-reported dyslexic entrepreneurs, most of whom probably had careers nothing like those of Mr. Boies or his fellow highfliers. Later Mr. Gladwell mentions that dyslexics are also overrepresented in prisons—a point that would appear to vitiate his argument. He addresses the contradiction by suggesting that while no person should want to be dyslexic, "we as a society need people" with serious disadvantages to exist, for we all benefit from the over-achievement that supposedly results. But even if dyslexia could be shown to cause entrepreneurship, the economic analysis that would justify a claim of its social worth is daunting, and Mr. Gladwell doesn't attempt it.

To make his point about the general benefits of difficulty, Mr. Gladwell refers to a 2007 experiment in which people were given three mathematical reasoning problems to solve. One group was randomly assigned to read the problems in a clear typeface like the one you are reading now; the other had to read them in a more difficult light-gray italic print. The latter group scored 29% higher, suggesting that making things harder improves cognitive performance. It's an impressive result on the surface, but less so if you dig a bit deeper.

First, the study involved just 40 people, or 20 per typeface—a fact Mr. Gladwell fails to mention. That's a very small sample on which to hang a big argument. Second, they were all Princeton University students, an elite group of problem-solvers. Such matters wouldn't matter if the experiment had been repeated with larger samples that are more representative of the general public and had yielded the same results. But Mr. Gladwell doesn't tell readers that when other researchers tried just that, testing nearly 300 people at a Canadian public university, they could not replicate the original effect. Perhaps he didn't know about this, but anyone who has followed recent developments in social science should know that small studies with startling effects must be viewed skeptically until their results are verified on a broader scale. They might hold up, but...
There is a good chance they will turn out to be spurious.

This flaw permeates Mr. Gladwell’s writings: He excels at telling just-so stories and cherry-picking science to back them. In “The Tipping Point” (2000), he enthused about a study that showed facial expressions to be such powerful subliminal persuaders that ABC News anchor Peter Jennings made people vote for Ronald Reagan in 1984 just by smiling more when he reported on him than when he reported on his opponent, Walter Mondale. In “Blink” (2005), Mr. Gladwell wrote that a psychologist with a “love lab” could watch married couples interact for just 15 minutes and predict with shocking accuracy whether they would divorce within 15 years. In neither case was there rigorous evidence for such claims.

But what about those dyslexic business titans? With all respect to Messrs. Boies, Cohn and Grazer, successful people are not the best witnesses in the cases of their own success. How can Mr. Boies, or anyone else, know that dyslexia, rather than rigorous debate training, was the true cause of his legal triumphs? His parents were both teachers, and could have instilled a love of studying and learning. He also had high SAT scores, which indicate intelligence and an ability to focus. Maybe his memory was strong before he realized he had trouble reading. Perhaps it’s a combination of all these factors, plus some luck. Incidentally, Mr. Boies's SAT scores and debate training aren't mentioned in "David and Goliath." I learned about them from his 2004 memoir, "Courting Justice."

In Mr. Cohn's case, dyslexia is said to have made him willing to take risks to get his first job in finance, as an options trader. Suppose he weren't dyslexic—isn't it likely that he would have still been a bit of a risk-taker? I know of no scientific evidence for a correlation between risk-taking and reading difficulty, and even if there were one, taking risks might just as well lead to bad outcomes (like those prison sentences) as to good ones.

A theorem of mathematics implies that in the absence of friction, any knot, no matter how complicated, can be undone by pulling on one end of the string. The causes of success in the real world are nothing like this: Resistance abounds, and things are so tangled up that it is virtually impossible to sort them out. Mr. Gladwell does no work to try to loosen the threads. Instead he picks one and, armed with the power of hindsight, just keeps yanking on it. Why are the Impressionist painters renowned today? Because they set up their own exhibitions to gain greater visibility in the 19th-century Paris art scene. "David and Goliath" discusses no other possibilities. Why did crime go down in Brownsville, Brooklyn over the past decade? Because the local police worked hard to increase their legitimacy in the minds of the community members. Nothing else is seriously considered.

None of this is to say that Mr. Gladwell has lost his gift for telling stories, or that his stories are unimportant. On the contrary, in "David and Goliath" readers will travel with colorful characters who overcame great difficulties and learn fascinating facts about the Battle of Britain, cancer medicine and the struggle for civil rights, to name just a few more topics upon which Mr. Gladwell’s wide-ranging narrative touches. This is an entertaining book. But it teaches little of general import, for the morals of the stories it tells lack solid foundations in evidence and logic.

One of the longest chapters addresses the question of how high-school students choose colleges. The protagonist is a woman with the pseudonym of Caroline Sacks, who was at the top of her class in high school and had loved science ever since she drew pictures of insects as a child. She was admitted to Brown University and the University of Maryland; she went to Brown, her first choice
of all the colleges she visited, with the goal of a science degree.

Ms. Sacks ran into trouble early on in her science courses and hit a wall in organic chemistry. There were students in her classes who seemed to effortlessly grasp concepts she struggled with, and she got discouragingly low grades. She switched her major and looks back with regret, saying that if she’d gone to Maryland, "I’d still be in science."

In this conclusion she may be right. Mr. Gladwell reports data showing that, no matter what kind of college students attend, those who start a science major in the top third of the ability range of students at their own college (judged by their SAT scores) are much more likely to graduate with a science degree than those in the bottom third—the odds are about 55% versus 15%.

This is a classic "fish and ponds" problem. Being the Little Fish in the Big Pond can be daunting. "It's the Little Pond that maximizes your chances to do whatever you want," Mr. Gladwell concludes. Ms. Sacks should have gone to Maryland instead of Brown—she would have been a Big Fish, avoided discouraging competition and stayed in science.

This argument exemplifies one of Mr. Gladwell's stock maneuvers. We might call it "the fallacy of the unexamined premise." He starts this discussion by saying that "a science degree is just about the most valuable asset a young person can have in the modern economy." And if you would be a weak student at an elite university or a strong student at a lower-ranked school, the literature says that you are more likely to get that science degree at the lower-ranked school. Therefore you should ignore conventional wisdom and pick the lower-ranked school over the higher one.

The problems here are many: Degrees from different kinds of schools are not assets of identical value, as Mr. Gladwell baldly implies when he writes that students at Harvard University and at a mid-ranked liberal-arts college are "studying the same textbooks and wrestling with the same concepts and trying to master the same problem sets." As anyone with experience at both sorts of institutions knows, this is false. All of the things that Mr. Gladwell says are the same are in fact different, and the market know this. To be sure, not every Ivy League science graduate is a genius, and many will be outperformed in science jobs and careers by the graduates of state universities and small colleges. But on average, an employer should bet on the Ivy Leaguer.

As for Ms. Sacks, why should she have lowered her sights only as far as Maryland? Even there she might have struggled. A science degree would have been hers even more surely if she had gone to her local community college, where she had already gotten a couple of As in courses she took during high school. But would she have learned as much? And would that degree have much real value?

Perhaps tough competition gives students a more realistic view of their own strengths and weaknesses. An accurate sense of one's own ability could help the process of acquiring expertise. I loved computer programming in high school, so I majored in computer science in college, but by graduation it was clear that I was no standout. Accepting that fact freed me to switch to psychology, where I have had some success. Finding your skills may trump following your passion.

Indeed, Mr. Gladwell never really explains why being a small fish is an "undesirable difficulty," rather than the kind of desirable difficulty like dyslexia that led David Boies to greatness. Shouldn’t Caroline Sacks be on her way to a Nobel Prize by now? Aside from the end result—Mr. Boies won, Ms. Sacks lost—we have no guide to which difficulties are desirable and which are not.
Losing a parent at an early age is a desirable difficulty because it is common among eminent achievers in a variety of fields, argues Mr. Gladwell at one point. But in later criticizing California's infamous three-strikes law for its devastating effects on families, he says that "for a child, losing a father to prison is an undesirable difficulty." The idea that difficulty is good when it helps you and bad when it doesn't is no great insight.

In a recent interview, Mr. Gladwell suggested that the hidden weakness of "Goliath" enterprises is their tendency to assume that the strategy that made them great will keep them great. But there are prominent examples of companies that failed after not changing direction (Blockbuster and Kodak) as well as ones that succeeded (Apple deciding to stick with a proprietary operating system rather than shift to Windows). There is no prospective way to know which is right, despite what legions of business gurus say. Sticking with what has worked is far from irrational; indeed, it is the perfect strategy right up until it isn't.

One thing "David and Goliath" shows is that Mr. Gladwell has not changed his own strategy, despite serious criticism of his prior work. What he presents are mostly just intriguing possibilities and musings about human behavior, but what his publisher sells them as, and what his readers may incorrectly take them for, are lawful, causal rules that explain how the world really works. Mr. Gladwell should acknowledge when he is speculating or working with thin evidentiary soup. Yet far from abandoning his hand or even standing pat, Mr. Gladwell has doubled down. This will surely bring more success to a Goliath of nonfiction writing, but not to his readers.

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A version of this article appeared September 28, 2013, on page C5 in the U.S. edition of The Wall Street Journal, with the headline: The Goliath of Nonfiction.