

In Schools, Are We Measuring What Matters?

Article



by Stephen Merrill, October 2020

Years ago, as a young public school teacher, Angela Duckworth struggled to motivate her students and get them to realize their potential. Those early classroom stumbles would shape her work for decades to come, and today her influential research remains focused on fundamental questions of "effort, motivation, and sustained commitment."

Duckworth's 2016 bestselling book *Grit: The Power of Passion and Perseverance* launched her public career and changed how many educators view non-cognitive skills. An exhaustive, thoroughly researched inventory of highly successful people in fields as varied as music, professional football, and the military, it examined what makes people who perform at the highest levels tick, and concluded that characteristics like passion for the subject matter and a willingness to work hard were more predictive of success than scores of raw intelligence or natural ability. For the highest achievers, it was grit—not talent—that made the difference.

But if Duckworth's primary contribution to the science of human achievement is in identifying and measuring grit—in certain circles, the word has become synonymous with her name—her idea of what makes students successful is far more expansive. In our far-ranging conversation, we talk about a constellation of traits that research is increasingly linking to success throughout life, including grit, passion, creativity, teamwork, loyalty, and honesty.

Her work has attracted its share of critics, who argue that the concept of grit fails to account for the socioeconomic and racial hurdles faced by so many students. But Duckworth has never believed that it's an either/or proposition. As a psychologist, she tells me, any assessment practice that is "narrower, more myopic, and more insensitive to equity" is headed the wrong way. "We want to go in the direction of more holistic, better information and evening the playing field"—so that we can broaden our understanding of human potential and see more pathways forward for all of our children.

I sat down with Duckworth recently to discuss standardized test scores, the paralyzing fear we all have of making mistakes, and why she takes issue with the idea of "discovering your passion."

Steve Merrill: I'm struck by this idea from your book that we come preloaded with a bias about human ability. Can you tell me about naturalness bias?

Angela Duckworth: Naturalness bias is the idea that when we look at somebody's performance and we think, "Wow, what a natural," we are biased to think that they're definitely going to do well in the future. We tend to favor them and think "I should recruit them. I should admit them."

In contrast, when we think that somebody is just as good but got there through hard work—we would call them "strivers," not "naturals"—we're still admiring but we don't judge them as favorably. We're simply not as optimistic about their future, and we may be a little less inclined to pay them money, for example, if they're applying for a job.

Merrill: Right, we're either born great, or tainted by the undignified need to work hard. That feels like a myth that's a serious danger to learning. How do we know that naturalness bias exists?

Duckworth: The research on naturalness bias comes from a friend of mine named Chia-Jung Tsay, also a psychologist and researcher. She's done experiments in which participants are randomly assigned to see a description of a talented performer, for example, but in one condition they're told that this performer is a natural, and in another condition they're told the performer is a striver—and that changes people's judgments.

She has personal experience as a pianist. She would go to these music competitions and notice that when people were considered naturals or prodigies, they were treated

more deferentially than someone with equal skill who was really open about practicing and working hard for it.

Merrill: I just reread your book *Grit: The Power of Passion and Perseverance*, and one researcher you mention argued pretty adamantly that natural ability is only a small part of the puzzle that separates the extraordinary from the ordinary.

Duckworth: The scientist who probably deserves the most credit for demystifying high performance is Anders Ericsson. Anders passed away suddenly this summer in his early 70s. He spent his whole life as a cognitive scientist, trying to understand how high performers do what they do. And what he learned is that these world-class experts start off like everyone else—they are awkward, clumsy amateurs. And it's through thousands of hours of what he called deliberate practice that they attain greatness.

I think Anders took a relatively purist view. I don't think he was convinced that there was anything about talent that helped distinguish the superb from the competent. But regardless of whether you take that view, I think his research demystified the actual things that people do to get better and better every day.

Merrill: We don't seem to have accepted that culturally. U.S. News & World Report weighs standardized test scores—students finish them in a matter of hours—more than three times as heavily as four-year high school grades to create their college rankings, for example. Do you think the preoccupation with standardized tests is related to our preference for natural ability?

Duckworth: So, it's a great question to ask: What's the connection between these notions of "natural talent" and standardized tests, particularly in college admissions? This is a very complex topic, and the more I understand what testing is, actually, the more confused I am. What does the score mean? Is it how smart somebody is, or is it something else? How much of it is their recent coaching? How much of it is genuine skill and knowledge?

But what the research scientist Brian Galla and I found is that when you look at, for example, four-year and six-year graduation rates, it turns out that standardized tests like the SAT or the ACT are predictive of college graduation, but they're not as predictive as high school grades. We found that the reason that grades are so predictive of finishing your college degree is that grades are a very good index of your self-regulation—your ability to stick with things, your ability to regulate your impulses, your ability to delay gratification and work hard instead of goofing off.

Merrill: So other traits are at work below the surface. I wanted to ask you about a Google study that concluded that the most important qualities of the company's top employees were things like communicating, listening well, and being a good problem solver. STEM expertise came in dead last. We're spending a lot of time and placing a lot of emphasis on SAT and ACT scores. Are we measuring the right things?

Duckworth: It's very clear that a human being's worth, and more narrowly even their productivity, depends on more than their cognitive ability. That's what the Google study suggests.

Call it soft skills, call it social and emotional skills, call it healthy habits, call it character—whatever you want to call it—I think any educator and certainly any parent would say that we have to broaden our view of kids' capabilities. That's partly because students have a rainbow of capabilities, but it's also because I don't want to send a signal to young people that cognitive ability is the only thing that matters. It's not. If teamwork matters, if loyalty matters, if honesty matters, if grit matters, if creativity matters, then we have to start assessing these things, because as it's often said, what gets measured is what gets treasured.

Merrill: What about tolerance for mistakes? We seem to have an obsession with right answers and with checking boxes in our school systems. But according to your research, truly successful people often have a surprising relationship with mistakes.

Duckworth: Nobody likes making mistakes. Recently I noticed that almost every prominent psychology department has somebody who is studying failure. I think that's because failure is such an emotional and aversive, frightening experience. Students fear failure because it's human to fear failure.

When you look at very successful people, though—when you watch commencement speeches, for example—many of them are about learning to embrace failure. So how do I get from fearing failure to doing what commencement speakers want me to do? I think the answer comes from cognitive therapy. Cognitive therapists have known for 50 years that when you have somebody who has fear or anxiety or depression, you have to identify the thoughts behind those emotional states.

With fear of failure, what's the thought that flashes through our mind the moment before we're embarrassed? I think the thought that flashes through the mind of a student is "I'm stupid." And I think when you're an adolescent, feeling stupid in front of other people is something to be avoided at all costs. We have to learn to replace the thought—"I'm stupid"—with another thought, which is "I'm learning."

Merrill: OK, but how do you do that?

Duckworth: I think if teachers could think about that microsecond right before a student's emotions flood them—can you insert that new thought, can you model that language? Can you make mistakes in front of the class? Can you, for example, screw up logging on to Zoom and then with humor, and self-deprecation, share with your

students that you felt pretty stupid but you then learned to replace that self-talk with "I'm learning how to do Zoom."

Merrill: I see a lot of folks fixating on the word "grit," but you've long suggested that successful people need passion too. And you talk about passion in a way I'm not used to; it's an active construction. Kids don't have passions and interests that need discovering—they actively develop passions and interests. What does that mean?

Duckworth: I realize now that when people think of grit, they think of toughness. In the word "grit" I'm trying to convey a sense of both perseverance and passion. I can't really think of a single example of somebody I've studied who has become truly great at what they do without intrinsic motivation.

I think the idea that kids have to discover their passion is misleading. I would say that instead of thinking about discovering a passion, which is fully formed, you actually have to find it. It's around middle school where you get the emergence of interests, where students are beginning to have favorite subjects and inclinations and strong views on extracurriculars. During that time, students need to sample different things, and sampling—you can also call it tasting because interests are like foods—will lead to the rejection or acceptance of certain kinds of foods.

Merrill: And how do interests become passions, and stick?

Duckworth: I think lingering with something long enough is important. Do track, do it again. Do the newspaper, do it again the following fall. That's the developmental course: from lots of sampling—kindergarteners might try things for a day—to high school, where you're still sampling but in deeper ways.

So students need opportunities, and they need their teachers to be their observant advocates, to say, "I noticed that you really liked Tolstoy, so I thought I would give you this extra copy of a book that you haven't read yet." I mean, those are moments that can change lives.

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