

Questionnaire

A new kind of smart

It's time to change the way we think about human potential, says Scott Barry Kaufman.

By Kirsten Weir

Reinventing the idea of intelligence is no small feat. It requires passion, motivation and resilience — the very qualities that Scott Barry Kaufman, PhD, says are missing from traditional descriptions of intellect.

Kaufman is scientific director of the Imagination Institute at the Positive Psychology Center at the University of Pennsylvania. Previously an adjunct assistant professor of psychology at New York University, Kaufman launched the nonprofit institute last year with Executive Director Martin E.P. Seligman, PhD, the former APA president widely known for his work in positive psychology. Their goal is to advance the science of the measurement and improvement of imagination, eventually developing an objective “Imagination Quotient” — a new kind of IQ.

Kaufman is also the author of the 2013 book “Ungifted: Intelligence Redefined,” which presents his arguments for a broader definition of brainpower — and the need to recognize factors that aren't measured by traditional standardized tests.

Intelligence isn't just about finding a quick solution to a problem or an obstacle, Kaufman says. Rather, he believes intelligent people are those who can come up with a variety of strategies to get where they want to go, and are able to develop new approaches if their first attempts fail.

“We all know what intelligence is intuitively, and I'm not trying to distort

what that means,” he says. “It's about your ability to adapt, to learn from prior experience.”

Kaufman talked to the *Monitor* about intelligence, creativity and some of the many projects he's excited about.

What made you look at the traditional idea of intelligence and decide it was missing the mark?

I saw firsthand as a child what it's like to grow up in an educational environment with such a strong focus on standardized testing. When I was very young, I was diagnosed with an auditory learning disability. Growing up with a learning disability, I saw the low expectations teachers had without even bothering to get to know us or trying to challenge us. I was in the special education program until ninth grade. It wasn't until then that I had a teacher who really believed in me and challenged me.

So I had a sense that we were missing out on some key aspects of what it means to demonstrate potential. It was obvious to me that the people seen as having more potential, such as kids in the gifted program or National Merit Scholars, were often quick learners, but not necessarily reflective learners. So I started thinking about other ways that intelligence could manifest, or other markers that could be equally good indicators of intellectual potential.

How do you define intelligence?

I think about 50 percent of the equation of intelligence is missing. We focus so much on current ability, like your ability

to take an IQ test, to understand and keep lots of information in your head at one time and manipulate it on the spot. What's missed is the engagement aspect of intellectual functioning. In my doctoral dissertation I called this the dual-process theory of human intelligence, and in my book I called it the theory of personal intelligence.

I define intellect as the dynamic interplay of ability and engagement in the pursuit of personal goals. To me, it's the personal goals aspect that is so critical. You can stick people in a decontextualized, sterile testing environment like an IQ test, but you're not really capturing what they are capable of achieving intellectually. They're not motivated, they're not engaged in what they're doing. You're not giving them an extended period of time to realize something great. You're thin-slicing their intelligence.

So should we ditch the traditional methods of assessing intelligence?

That kind of testing environment does tell you something about a person. IQ tests aren't meaningless. But in terms of personal intelligence, the kind of skills necessary to make your dream a reality, it's not all about IQ. Other things are really important, like passion, being inspired, having a growth mindset, having grit and determination and resiliency. All of these characteristics come into play when you look at the individual level and move away from trying to compare people on a single dimension.

"Growing up with a learning disability, I saw the low expectations teachers had without even bothering to get to know us or trying to challenge us," says Dr. Scott Barry Kaufman.



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Are these other facets of intelligence things that can be learned?

If you want to improve things like grit and determination, you really have to engage people from within, not from without. There are curricula to teach people to be more self-controlled, more gritty, as a form of duty: If you sit your butt in the seat and learn this boring task, you're going to get some external reward, such as getting into a good college or making your parents proud.

But that's not ultimately where I think the most long-lasting change for grit and determination will be. I think these things are more likely to be increased when you set up the conditions to draw them out from within. So firstly, you make people interested in the things they're learning. You connect the material to someone's personal goals. "Meaning-making" is an essential aspect to bringing out grit organically. And that's not something we do in a passive classroom where it's almost entirely about focusing on the outside world.

How do you think the educational system can better cultivate these qualities in students?

There needs to be a better opportunity for students in all grades — including elementary school — to have more choice about which classes they'd like to take, and a selection of how they can demonstrate their brilliance. I'm not talking about learning styles in terms of auditory learners, visual learners and so on. That's largely been debunked. But some people might be good at project-based learning. Some might be better able to show you their knowledge of the material through a take-home project, where you give them time to reflect. Some people prefer group work. Some students might be good at

traditional passive learning, and that's fine. Give them that option.

There is no one-size-fits-all category, and I think that's what needs to change about the educational system. There needs to be a greater appreciation of these fundamental differences.

Traits like grit and resilience have gotten a lot of attention from researchers lately. Do you think educators are starting to get the message?

I do. I see lots of innovative schools and innovative approaches. High-Tech High [a network of charter schools in San Diego] is doing a great job, turning the school into a design studio. The Future Project [a national nonprofit organization that installs full-time "dream directors" into high schools to help young people realize their goals] shows the importance of every student having a coach, an advocate to help them. Montessori education is great in the sense that it gives kids a chance to let their natural curiosity flourish. I see a lot of great independent schools that are really leading the charge. Unfortunately, they're still in the minority, but there are a lot of good hints for the future.

What else can be done to bring more of these innovative approaches to public schools?

Everyone needs to talk to others more. There's such fragmentation. Public policymakers aren't aware of the latest psychological research. Educators are working within a system given to them by public policymakers, even though they want it to change. Some psychologists don't even see the point of applied research. There needs to be more multidisciplinary science. With the Imagination Institute, I'm organizing an event next

March bringing together leaders in education to produce a report on how to innovate education. Little by little, I think there needs to be greater cross-talk.

It sounds like you've been busy with the Imagination Institute...

The goal is to advance the science of measurement and development of imagination across all sectors of society, and we're able to do that with generous funding from the John Templeton Foundation. We just completed our first grant competition and awarded 16 grants [to scholars studying the science of imagination]. We are also doing a series of weekend retreats across various fields — physics, music, novels, screenwriters, the military, all sorts of things. Basically, we want to find the most imaginative people on this earth, study them, scan their brains, give them cognitive tests and have a discussion with them about what innovation and imagination looks like in their field.

What else are you working on?

I have a book on creativity coming out at the end of this year, "Wired to Create: Unraveling the Mysteries of the Creative Mind" with co-author Carolyn Gregoire. I'm also collaborating on an internship program with a team from the lab of Dr. Angela Duckworth, who studies grit and self-control at the University of Pennsylvania. We have a student working on creating curricula for teachers that incorporate grit and imagination.

I'm also excited by a collaboration with Susan Cain, the author of the book "Quiet: The Power of Introverts in a World That Can't Stop Talking." We're working with some students at Penn researching introversion and appreciating the benefit of solitude. We know quiet and solitude are so

essential for creativity and making meaning. I'm also excited about my new podcast, "The Psychology Podcast," where I get to chat with some interesting people, many whose research is grossly underappreciated.

What big question do you hope to answer?

I want to really understand the mechanisms that give rise to the human imagination. But there's also

the advocacy piece. In institutions that really matter, like the work environment or the school environment, I want people to appreciate the importance of those mechanisms, the importance of imagination, and to spend more

time developing those abilities. I think they will be essential for the future of humankind. We are sacrificing the development of imagination to the detriment of the future of humanity. ■

Further reading

- Kaufman's "Beautiful Minds" blog [Scientific American Blog Network] <http://blogs.scientificamerican.com/beautiful-minds/>

- Kaufman, S. B. (2014). From evaluation to inspiration. *Medium*. Available online at: <https://medium.com/aspens-ideas-from-evaluation-to-inspiration-26636af27c62>

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