

obert Falcon Scott's hopes should have died on Jan. 17, 1912, when he and his small band of exhausted and near-frozen men arrived at the South Pole to find the Norwegian exploration team led by Roald Amundsen had beaten them by a mere three weeks. A red, white, and blue

banner was flying in the brutally cold wind, but it was the Norwegian flag, not the Union Jack. Rather than despair, he recorded in his diary words of almost unbelievable resilience: "I may not have proved a great explorer, but we have done the greatest march ever made and come very near to great success." On the doomed return trip, frozen, starving, 11 impossible miles away from supplies, and near death, he wrote, "We are weak, writing is difficult, but for my own sake I do not regret this journey, which has shown that Englishmen can endure hardships, help one another, and meet death with as great a fortitude as ever in the past." When they found his body months later, he was half out of his sleeping bag, reaching toward one of his companions.

Scott's story extends beyond being solely a compelling tale of nearly incomprehensible courage. It may hold the secret to why some people with high potential succeed while others languish in the shallows of underachievement. It turns out success on virtually any playing field bears a strong resemblance to the challenges of Antarctica in one crucial respect—grit.

As scientists and psychologists work to tease apart the convoluted maze that is human achievement, research increasingly points to the idea that long-term perseverance is



just as important to success as isolated intelligence, perhaps even more so.

The idea isn't new. Even one of the scientists most firmly in the Nature camp of the Nature versus Nurture battle, Sir Francis Galton (cousin of the somewhat more famous Charles Darwin), wrote in 1869 that he acknowledged the importance of having the "adequate power of doing a great deal of very laborious work," even in people of high innate ability.

The specific term "grit" to describe this quality entered the common vernacular when a University of Pennsylvania psychologist, Angela Duckworth, and other researchers looked at the ideas about stamina and perseverance that had been percolating around and created what they called "Grit





Robert Falcon Scott (above) showed amazing determination before dying while trying to return from the South Pole in 1912.



Scale" to measure this curious mixture of drive and determination to try to see how important it was to success. And then they tested it. Again and again. No matter how smart you are, they found, if you aren't a little gritty, you may not achieve what you (and others around you) wish you would.

Duckworth et al. define grit as "perseverance and passion for long-term goals" and say it's more than self-control, which can be short-term in nature. In other words, if you're gritty, you might eat the donut, but you also plan and train for a 10K race.

Researchers learned more about the importance of grit at perhaps one of the grittiest places around—West Point. During the summer before freshman year, military instruction begins with Cadet Basic Training, ominously called "Beast Barracks." In June of 2004, Duckworth and other researchers had 1,218 cadets complete the Grit Scale when

West Point cadets and musicians require grit more than intelligence to succeed, studies show.

they arrived at West Point. Duckworth's team wanted to see how a cadet's score on the Grit Scale compared to other measures in predicting success as defined by making it through the rigorous summer program. At the end of the training when cadets marched the 12 miles back to campus, 71 of them had dropped out. Their Grit Scale score, more than any other barometer, predicted how likely they were to make it to the finish line.

The researchers then took their Grit Scale on the road to the Scripps National Spelling Bee in 2005, where they found that it did a better job than IQ at predicting who would make it to the final round. The researchers concluded that "gritty children work harder and longer than their less gritty peers, and, as a consequence, perform better." They had a little advice for parents and teachers: Help kids learn to study with stamina, not just intensity.

The amount of stamina required for expertise in any endeavor has been popularized as the "Ten Years, Ten Thousand Hours" rule. Essentially, the rule says that it takes 10 years of purposeful effort (quantified as 10,000 hours) to achieve a very high level of proficiency in any given domain. There is a caveat: The 10,000 hours one spends can't be just any old 10,000 hours. It demands what researchers call "deliberate practice" (Ericsson, Krampe, and Tesch-Romer, 1993). Deliberate practice involves structured, feedback-driven, weaknessfocused work, specifically designed to improve performance. So just sitting at the piano playing non-challenging pieces for 10,000 hours won't do it.

Ann Smith, director of one of the top-ranked high school orchestra programs in the state of Texas, says grit is more important than innate talent in the development of an expert musician. "It's the determined, deliberate practice that makes the difference," she says. "A student who has talent but no grit isn't as vested in the process, in the activity, and when he finds the practice unenjoyable, he quits."

This crucial, determined, deliberate practice Smith refers to is not, as Ericsson says,



The crew of *Endurance* spent months at sea, their boat trapped in ice, before being rescued.

CRITTYKID

Follow these tips to give your brainiac the determination she needs to put her intelligence to good use.

- Set challenging yet achievable goals.
 Studies show people work best when faced with "optimal challenge," that desirable state in which the challenge is neither too easy nor too difficult. Goals that are too long or too arduous create discouragement and diminish determination. Goals that are too easy are boring and unsatisfying.
- Allow children to set their own goals. Goals set for them are more likely to build resentment than grit. Shackleton described the internal motivation behind his own polar exploration: "I dreamt when I was 22 that someday I would go to the region of ice and snow and go on and on till I came to one of the poles of the Earth." Use sites such as www.goalforit.com/goal-setting.html to help children track their goals.
- Transfer skills. The asynchronous development so common in gifted children is a component in grit development as well. A child may be gritty in one area but not another. Some of this will develop over time, but a parent or teacher pointing out the child's determination in one area and how it could be applied in another can be a nonthreatening way to transfer skills.
- Recognize that obsession is not necessarily grit. Just because a child wants to play video games to the exclusion of all else does not mean he is pursuing a long-term goal with meaning and value. Remember Ericsson's deliberate performance? Just play is not effective practice in any endeavor.
- Share stories of gritty individuals.
 Discuss admirable figures such as Scott;
 Shackleton; and the myriad scientists,
 authors, musicians, and others who
 have enriched the world through their determination.

"inherently enjoyable." Even the people who were really good at what they did didn't necessarily relish practicing it. So those of us who quit piano lessons because we didn't like practicing missed the point. We weren't supposed to like it.

Those who are successful in overcoming the doldrums of preparation often share Polar explorer Robert Scott's attitude toward it. "Every day some new fact comes to light—some new obstacle which threatens the gravest obstruction," he wrote. "I suppose this is the reason which makes the game so well worth playing."

Something about the obstacles of polar exploration lures exceptionally gritty people to this most dangerous game. When Ernest Shackleton's ship, *Endurance*, was crushed and devoured by ice in October of 1915, stranding him and his men 312 miles of ice away from any shelter, he was undaunted. They'd just walk there, he decided. When that didn't work, his men finding it impossible to transport the sleds across the slushy ice, he simply set up camp right where they were on a drifting floe and waited. When the floe melted, sending one surprised

man sliding into the icy water in his sleeping bag, they took to the open boats and miraculously found land six days later. They would not be rescued until August of 1916, after Shackleton himself sailed more than 700 miles across open, frigid ocean and crossed the mountains and glaciers of South Georgia Island to seek help.

Ernest Shackleton's name has become so intertwined with that of courage in the face of overwhelming odds that contemporary explorers repeat it as a mantra. His journey on the aptly named *Endurance* has become the stuff of legend, and his family motto, "By endurance we conquer," could easily be the slogan of gritty people around the world. In addition to courage, Shackleton and Scott both embody another key component of grit, a curious blend of fatalism and optimism called the Stockdale Paradox.

Jim Collins, in his book *Good* to *Great*, describes the Stockdale Paradox, named for Admiral Jim Stockdale, the highest-ranking officer kept prisoner in the "Hanoi Hilton during the Vietnam War. This paradox is the ability to have a complete understanding of the gravity of any

given situation, yet still have what Stockdale refers to as "faith in the end of the story."

In a conversation with Collins, Stockdale explained something that seems counterintuitive: The people who didn't make it out of the notorious prison were the optimists—the people who kept thinking that freedom was coming sooner rather than later, only to have their hopes dashed again and again as the days passed by and they went un-rescued. The realists, focused on enduring a potentially very long imprisonment (eight years in Stockdale's case), were the ones who survived.

This same quality was shown by Carnegie Mellon professor Randy Pausch, who gained worldwide fame through his "last lecture" on achieving your childhood dream. In this lecture, delivered as he was battling the pancreatic cancer that would take his life, he described the obstacles in life as "brick walls" whose purpose is "not there to keep us out." Rather, "the brick walls are there to give us a chance to show how badly we want something. The brick walls are there to stop the people who don't want it badly enough."

People, in other words, without enough grit.

Interestingly, while grit as defined by Duckworth et al. involves pursuit and passion for long-term goals, it also requires a revision of how we look at failure. Scott died without accomplishing his goal. Shackleton died at 47 of a heart attack, having never seen the South Pole.

Other wildly successful people have had their failures forgotten, subsumed by their later spectacular achievements. Walt Disney was fired from a newspaper job because he lacked ideas. He later said that although you may not realize it at the time, "A kick in the teeth may be the best thing in the world for you." Winston Churchill failed sixth grade. At Fred Astaire's

Fred Astaire's first screen test labeled him slightly bald and a bad actor and singer.



first screen test, the evaluator wrote, "Can't act. Can't sing. Slightly bald. Can dance a little."

Failure is perhaps the rocket fuel of determination. The brick walls Pausch talks about may be the brick walls of what some call failure but others recognize as only there to stop the insufficiently gritty. One thing is certain: If people of high potential are to achieve their goals, sheer intelligence may not be enough in many endeavors. It may be necessary to get down and gritty.



Learn how to be gritty and read some of the research cited here.

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