**What it takes to be great**

**Research now shows that the lack of natural talent is irrelevant to great success. The secret? Painful and demanding practice and hard work**

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(Fortune Magazine) -- What makes Tiger Woods great? What made [Berkshire Hathaway](http://archive.fortune.com/quote/quote.html?symb=BRKA) ([Charts](http://archive.fortune.com/quote/chart/chart.html?symb=BRKA)) Chairman Warren Buffett the world's premier investor? We think we know: Each was a natural who came into the world with a gift for doing exactly what he ended up doing. As Buffett told Fortune not long ago, he was "wired at birth to allocate capital." It's a one-in-a-million thing. You've got it - or you don't.

Well, folks, it's not so simple. For one thing, you do not possess a natural gift for a certain job, because targeted natural gifts don't exist. (Sorry, Warren.) You are not a born CEO or investor or chess grandmaster. You will achieve greatness only through an enormous amount of hard work over many years. And not just any hard work, but work of a particular type that's demanding and painful.

Buffett, for instance, is famed for his discipline and the hours he spends studying financial statements of potential investment targets. The good news is that your lack of a natural gift is irrelevant - talent has little or nothing to do with greatness. You can make yourself into any number of things, and you can even make yourself great.

Scientific experts are producing remarkably consistent findings across a wide array of fields. Understand that talent doesn't mean intelligence, motivation or personality traits. It's an innate ability to do some specific activity especially well. British-based researchers Michael J. Howe, Jane W. Davidson and John A. Sluboda conclude in an extensive study, "The evidence we have surveyed ... does not support the [notion that] excelling is a consequence of possessing innate gifts."

To see how the researchers could reach such a conclusion, consider the problem they were trying to solve. In virtually every field of endeavor, most people learn quickly at first, then more slowly and then stop developing completely. Yet a few do improve for years and even decades, and go on to greatness.

The irresistible question - the "fundamental challenge" for researchers in this field, says the most prominent of them, professor K. Anders Ericsson of Florida State University - is, Why? How are certain people able to go on improving? The answers begin with consistent observations about great performers in many fields.

Scientists worldwide have conducted scores of studies since the 1993 publication of a landmark paper by Ericsson and two colleagues, many focusing on sports, music and chess, in which performance is relatively easy to measure and plot over time. But plenty of additional studies have also examined other fields, including business.

**No substitute for hard work**

The first major conclusion is that nobody is great without work. It's nice to believe that if you find the field where you're naturally gifted, you'll be great from day one, but it doesn't happen. There's no evidence of high-level performance without experience or practice.

Reinforcing that no-free-lunch finding is vast evidence that even the most accomplished people need around ten years of hard work before becoming world-class, a pattern so well established researchers call it the ten-year rule.

What about Bobby Fischer, who became a chess grandmaster at 16? Turns out the rule holds: He'd had nine years of intensive study. And as John Horn of the University of Southern California and Hiromi Masunaga of California State University observe, "The ten-year rule represents a very rough estimate, and most researchers regard it as a minimum, not an average." In many fields (music, literature) elite performers need 20 or 30 years' experience before hitting their zenith.

So greatness isn't handed to anyone; it requires a lot of hard work. Yet that isn't enough, since many people work hard for decades without approaching greatness or even getting significantly better. What's missing?

**Practice makes perfect**

The best people in any field are those who devote the most hours to what the researchers call "deliberate practice." It's activity that's explicitly intended to improve performance, that reaches for objectives just beyond one's level of competence, provides feedback on results and involves high levels of repetition.

For example: Simply hitting a bucket of balls is not deliberate practice, which is why most golfers don't get better. Hitting an eight-iron 300 times with a goal of leaving the ball within 20 feet of the pin 80 percent of the time, continually observing results and making appropriate adjustments, and doing that for hours every day - that's deliberate practice.

Consistency is crucial. As Ericsson notes, "Elite performers in many diverse domains have been found to practice, on the average, roughly the same amount every day, including weekends."

Evidence crosses a remarkable range of fields. In a study of 20-year-old violinists by Ericsson and colleagues, the best group (judged by conservatory teachers) averaged 10,000 hours of deliberate practice over their lives; the next-best averaged 7,500 hours; and the next, 5,000. It's the same story in surgery, insurance sales, and virtually every sport. More deliberate practice equals better performance. Tons of it equals great performance.

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