

Practice

Practice. Rather than being the result of genetics or inherent genius, truly outstanding skill in any domain is rarely achieved with less than ten thousand hours of practice over ten years' time.

"For those on their way to greatness [in intellectual or physical endeavors], several themes regarding practice consistently come to light:

1. **Practice changes your body.** Researchers have recorded a constellation of physical changes (occurring in direct response to practice) in the muscles, nerves, hearts, lungs and brains of those showing profound increases in skill level in any domain.

2. **Skills are specific. Individuals becoming great at one particular skill do not serendipitously become great at other skills. Chess champions can remember hundreds of intricate chess positions in sequence but can have a perfectly ordinary memory for everything else. Physical and intellectual changes are ultra-specific responses to particular skill requirements.**

3. **The brain drives the brawn. Even among athletes, changes in the brain are arguably the most profound, with a vast increase in precise task knowledge, a shift from conscious analysis to intuitive thinking (saving time and energy),**
and elaborate self-monitoring mechanisms that allow for constant adjustments in real time. 4. **Practice style is crucial.**

Ordinary practice, where your current skill level is simply being reinforced, is not enough to get better. It takes a special kind of practice to force your mind and body into the kind of change necessary to improve.

5. **Short-term intensity cannot replace long-term commitment. Many crucial changes take place over long periods of time.**

Physiologically, it's impossible to become great overnight.

"Across the board, these last two variables -- practice style and practice time -- emerged as universal and critical. From Scrabble players to dart players to soccer players to violin players, it was observed that the uppermost achievers not only spent significantly more time in solitary study and drills, but also exhibited a consistent (and persistent) style of preparation that K. Anders Ericsson came to call 'deliberate practice.' First introduced in a 1993 *Psychological Review*

article, the notion of deliberate practice went far beyond the simple idea of hard work. It conveyed a method of continual skill improvement.

'Deliberate practice is a very special form of activity that differs from mere experience and mindless drill,' explains Ericsson. 'Unlike playful engagement with peers, deliberate practice is not inherently enjoyable. It ... does not involve a mere execution or repetition of already attained skills but repeated attempts to reach beyond one's current level which is associated with frequent failures.' ...

"In other words, it is practice that doesn't take no for an answer; practice that perseveres; the type of practice where the individual keeps raising the bar of what he or she considers success. ... "[Take] Eleanor Maguire's 1999 brain scans of London cabbies, which revealed greatly enlarged representation in the brain region that controls spatial awareness. The same holds for any specific task being honed; the relevant brain regions adapt accordingly. ...

"[This type of practice] requires a constant self-critique, a pathological restlessness,

Pathology - I guess meaning deviation from the norm or most will not make necessary sacrifice? Not sure of choice of word? Restlessness - that hits it - right in the bullseye. If you seek perfection, you are restless. You are never there.

a passion to aim consistently just beyond one's capability so that daily disappointment and failure is actually desired, and a never-ending resolve to dust oneself off and try again and again and again. ...

"The physiology of this process also requires extraordinary amounts of elapsed time -- not just hours and hours of deliberate practice each day, Ericsson found, but also thousands of hours over the course of many years. Interestingly, a number of separate studies have turned up the same common number, concluding that truly outstanding skill in any domain is rarely achieved in less than ten thousand hours of practice over ten years' time (which comes to an average of three hours per day). From sublime pianists to unusually profound physicists, researchers have been very hard-pressed to find any examples of truly extraordinary performers in any field who reached the top of their game before that ten-thousand-hour mark." Author: David Shenk Title: *The Genius in All of Us* Publisher: Anchor Date: Copyright 2010 by David Shenk Pages: 53-57