Author: David Epstein  
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David Epstein, the author of The Sports Gene, examines the nature vs. nurture effect within the context of sports. The book explores the roles of genetics and the makeup of DNA that leads to an athlete becoming “elite” in a sport. Epstein examines different athletes from multiple ethnic backgrounds competing in different sports to compile an enticing argument of the role of both genetic makeup and practice. He does not dismiss athleticism through practice, but uniquely incorporates athleticism to both genes and practice. The connection between sport and genetic makeup go hand and hand.

The first athletic skill David Epstein analyses is the reaction time of professional baseball hitters. He found from his research that these professional baseball players have very similar reaction time compared to the general public. So the question arises, how can one person hit a 100 MPH fastball while an “average Joe” has no chance? The answer is that “elite” athletes have the ability to see mentally what pitch is coming before it leaves the pitcher’s hand. Along with great vision, these professional baseball players build up a mental database that allows them to envision pitches by the pitcher’s body movement.

However, when Team USA softball pitcher Jenny Finch took on many major league hitters she left them looking like complete fools. Alex Rodriguez refused Finch’s challenge stating “No one’s going to make a fool out of me.” Even Barry Bonds could not come close to one of her underhand rockets until he finally tapped a measly foul ball after Ms. Finch told him where the pitch was going. The inability to hit the underhand
pitch was due to the fact the professional baseball players never had a mental database for these pitches.

Epstein also addresses Anders Ericson’s 10,000-hour rule which implies that an athlete reaches “elite” status once they practice for 10,000 hours. Epstein analyzes the elite status of grandmaster chess players in relationship to their peers. He finds that some grandmasters would become elite with less than 3,000 hours of playing while others would take over 20,000, and even some players, no matter how much they played, would never become a grandmaster. This puts to rest the 10,000-hour rule; because on average it would take 10,000 hours, but everyone is different in his or her practice to become elite.

Epstein proves that certain training works for some people while others will see little or no result. Many athletes are examined throughout the book while one aspect remains common: genetic make up is responsible for training to elite status of an individual. He shares with readers that “between one and ten and one in fifty people are high aerobic responders” (Epstein 97). This allows for someone’s innate ability to run amazingly fast with less training than someone who isn’t genetically gifted and must steadily improve over a long period of time. Epstein also found high jumpers are more suitable due to their Achilles tendon acting as a springboard launching them over the bar. For this analysis Epstein looks at Stefan Holm of Sweden’s lifelong training at high jump and how Donald Thomas of the Bahamas was able to defeat him just a year and a half after his first jump. Donald Thomas’ Achilles tendon allowed him to have a physical advantage over Mr. Holm. His Achilles acted as a springboard and allowed him to fly over Mr. Holm to win the 2007 World Championships. Epstein examines the “physical
gifts” one receives and their ability to compete and train using these gifts. Specific muscle tendencies have a large role in how an athlete trains and competes.

David Epstein examines the trainability of muscle in superior athletes. Every person has either slow or fast twitch muscles. The slow-twitch muscle lends itself to longer endurance such as marathons while the fast-twitch is more for sprints. Whether a person has the genetic makeup of a fast or slow-pitch muscle depends on which event they will partake and how they will respond to specific training. David Epstein also introduces the idea of double muscle. The genetic mutation of double muscle is called myostatin and is rarely seen in humans except for one young German boy. Unfortunately, Epstein does not let the reader know if the boy plays sports. This genetic mutation allows for a Hercules effect where a person is able to generate twice the amount of muscle as a normal person. He inquires what will happen if athletes find out how to pump this genetic mutation into their bodies. This genetic mutation would completely change doping and sports.

The old statement “white man can’t jump” might not be as true as it seems. Instead of the original statement, Epstein states it should be “White man can’t reach.” On average black NBA players have a larger wingspan than that of a white player at a similar height. This allows for a 6 foot 4-inch black guard to play as someone who is actually 6 foot 8 due to his wingspan. The genetics behind NBA basketball is fascinating. Seventeen percent of seven-foot males in America play in the NBA. This is why Yao Ming’s parents were brought together by the Chinese government to create a 7 foot 6-inch giant because of their height genes. The gene patterns of athletes have a unique correlation to “elite” players.
While there is no such thing as a perfect genetic makeup, athlete genes do play a large role in determining someone’s trainability and success in sports. People from different parts of the world are genetically different from another whether in regard to height and muscle tendencies, each of these affects someone’s ability in sports. David Epstein uniquely ties together the relationship between genetic makeup and practice in sports. *The Sports Gene* is a fascinating book and allows readers to see inside the world of sports and training. Athletic performance is not the result of nature vs. nurture, but is a result of a combination of both.