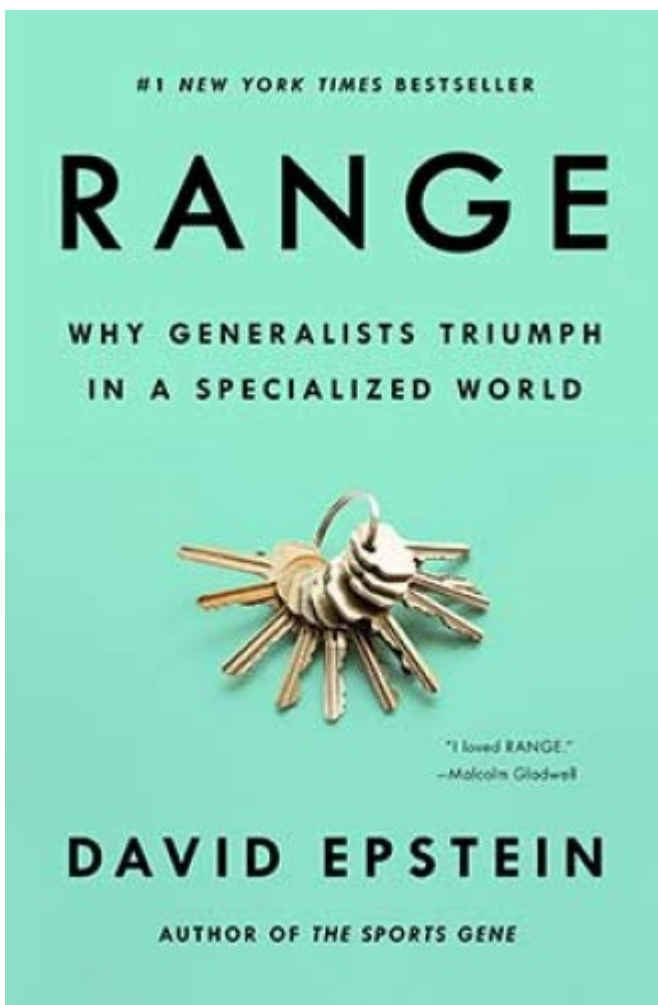


The problem with specialization

Chess players and golfers might benefit from an early, singular focus. Most people don't.

by [Martin B. Copenhaver](#) in the [November 6, 2019](#) issue

In Review



Range

Why Generalists Triumph in a Specialized World

By David Epstein

Penguin

We generally assume that the best way to make a contribution to our increasingly complex world is to specialize: choose an area of expertise, preferably at a young age, and focus on it exclusively for an extended period. In *Outliers*, Malcolm Gladwell famously observed that people who accomplish great things are those who devote 10,000 hours to the practice of a discipline. According to this theory, the Beatles were able to become the greatest band in history because early in their careers they clocked something like 10,000 hours playing into the wee hours every night in Hamburg. Similarly, Bill Gates got a jump on other innovators in his field by logging thousands of hours at the computer beginning in his teen years.

David Epstein's critique of specialization begins with what he calls the "cult of the head start." Epstein started as a sportswriter, so it is not surprising that he begins his argument by contrasting the development of two athletes who became recognized as the best in their respective sports.

Tiger Woods's story has been so often told that it emblemizes how to develop a particular skill to the point of near perfection. Films show that Woods had a mature golf swing at the age of two. Woods's father, seeing his son's promise, ensured that Tiger practiced countless hours to perfect his swing. Woods had prodigious talent, but the key to its development was his singular focus. He dedicated himself early and completely to becoming the best golfer in the world.

Roger Federer's story is less well known, perhaps because it does not support common beliefs about the benefits of early specialization. As a boy, Federer played a wide range of sports. Although his mother was a tennis coach, she refused to coach her son. It was not until Federer approached his teenage years that he decided to focus on tennis.

Looking back, however, Federer does not see what Epstein would call his "sampling period" as delaying his growth as a tennis player. He sees it, rather, as the key to his success. It helped him identify the sport that was most suitable for his talents (what Epstein calls "match quality"). Federer also attributes his athleticism and hand-eye coordination to the variety of sports he played when he was younger.

Epstein concedes that early specialization can be successful in endeavors in which patterns occur repeatedly, the rules and answers are well known, and they don't

change over time. Chess, golf, and classical music are among such endeavors. Epstein calls the setting for learning such skills *kind* learning environments.

But he also identifies *wicked* learning environments in which “the rules of the game are often unclear or incomplete, there may or may not be repetitive patterns, and they may not be obvious.” Epstein contends that most human endeavors fall in the wicked category, for which early specialization and singular focus are not the best preparation.

So, for example, someone like Mozart can exhibit amazing skill within the kind learning environment of music, composing music at the age of five. But Doogie Howser, MD, the boy physician at the center of a 1990s television show, can only be a fictional character. There are no medical prodigies because physicians acquire their skills by spending a good deal of time in wicked learning environments, where mastery is more elusive.

Epstein stretches his point a bit by contrasting golf (which is learned in a kind environment) and tennis (which, because the learner competes against different opponents, is more complex and, thus, wicked). He seems to know that it’s a stretch: he concedes that most human endeavors are more complex than either sport. He quotes psychologist Robin Hogarth’s observation that much of the world is like “Martian tennis,” in which the rules are unclear and constantly changing.

Range is filled with examples of the benefits of delayed specialization. Epstein contends that working successfully within wicked environments requires maintaining something of a generalist’s wide range. But success does not come to casual dabblers: it comes to those who are “ravenously curious” not only about their own field, but about other fields as well. Epstein’s account is festooned with intriguing findings, like the fact that Nobel laureates are 22 times more likely than other scientists to be deeply engaged in another discipline, such as writing fiction or making music. It turns out that breadth is the ally of depth, not its enemy.

Four months after its publication, *Range* remains near the top of the nonfiction best-seller list. One cannot help wondering if its readers are largely generalists who are grateful for the recognition. After all, in our culture generalists are not afforded the same prestige that specialists are. It’s telling that few doctors today describe themselves as “general practitioners.” Instead, the preferred description is “internal medicine physician,” which has the benefit of sounding like an area of expertise.

Pastors may be among the last generalists remaining in our culture. We tend to be self-conscious about this because we are educated by the kind of specialists who teach in seminaries. While Epstein does not address pastors specifically, he would undoubtedly agree that pastors work within one of the most wicked of all learning environments: the congregation. Ministry is “Martian tennis” every day. Range is an encouraging reminder that in some endeavors a generalist can bring a perspective and make a contribution that a specialist cannot.