Excerpt from Atul Gawande, "Personal Best"

What we think of as coaching was, sports historians say, a distinctly American development. During the nineteenth century, Britain had the more avid sporting culture; its leisure classes went in for games like cricket, golf, and soccer. But the aristocratic origins produced an ethos of amateurism: you didn't want to seem to be trying too hard. For the Brits, coaching, even practicing, was, well, unsporting. In America, a more competitive and entrepreneurial spirit took hold. In 1875, Harvard and Yale played one of the nation's first American-rules football games. Yale soon employed a head coach for the team, the legendary Walter Camp. He established position coaches for individual player development, maintained detailed performance records for each player, and pre-planned every game. Harvard preferred the British approach to sports. In those first three decades, it beat Yale only four times.

The concept of a coach is slippery. Coaches are not teachers, but they teach. They're not your boss—in professional tennis, golf, and skating, the athlete hires and fires the coach—but they can be bossy. They don't even have to be good at the sport. The famous Olympic gymnastics coach Bela Karolyi couldn't do a split if his life depended on it. Mainly, they observe, they judge, and they guide.

Coaches are like editors, another slippery invention. Consider Maxwell Perkins, the great Scribner's editor, who found, nurtured, and published such writers as F. Scott Fitzgerald, Ernest Hemingway, and Thomas Wolfe. "Perkins has the intangible faculty of giving you confidence in yourself and the book you are writing," one of his writers said in a *New Yorker* Profile from 1944. "He never tells you what to do," another writer said. "Instead, he suggests to you, in an extraordinarily inarticulate fashion, what you want to do yourself."

The coaching model is different from the traditional conception of pedagogy, where there's a presumption that, after a certain point, the student no longer needs instruction. You graduate. You're done. You can go the rest of the way yourself. This is how élite musicians are taught. Barbara Lourie Sand's book "Teaching Genius" describes

the methods of the legendary Juilliard violin instructor Dorothy DeLay. DeLay was a Perkins-like figure who trained an amazing roster of late-twentieth-century virtuosos, including Itzhak Perlman, Nigel Kennedy, Midori, and Sarah Chang. They came to the Juilliard School at a young age—usually after they'd demonstrated talent but reached the limits of what local teachers could offer. They studied with DeLay for a number of years, and then they graduated, launched like ships leaving drydock. She saw her role as preparing them to make their way without her.

Itzhak Perlman, for instance, arrived at Juilliard, in 1959, at the age of thirteen, and studied there for eight years, working with both DeLay and Ivan Galamian, another revered instructor. Among the key things he learned were discipline, a broad repertoire, and the exigencies of technique. "All DeLay's students, big or little, have to do their scales, their arpeggios, their études, their Bach, their concertos, and so on," Sand writes. "By the time they reach their teens, they are expected to be practicing a minimum of five hours a day." DeLay also taught them to try new and difficult things, to perform without fear. She expanded their sense of possibility. Perlman, disabled by polio, couldn't play the violin standing, and DeLay was one of the few who were convinced that he could have a concert career. DeLay was, her biographer observed, "basically in the business of teaching her pupils how to think, and to trust their ability to do so effectively." Musical expertise meant not needing to be coached.

Doctors understand expertise in the same way. Knowledge of disease and the science of treatment are always evolving. We have to keep developing our capabilities and avoid falling behind. So the training inculcates an ethic of perfectionism. Expertise is thought to be not a static condition but one that doctors must build and sustain for themselves.

Coaching in pro sports proceeds from a starkly different premise: it considers the teaching model naïve about our human capacity for self-perfection. It holds that, no matter how well-prepared people are in their formative years, few can achieve and maintain their best performance on their own. One of these views, it seemed to me, had to be wrong. So I called Itzhak Perlman to find out what he thought.

I asked him why concert violinists didn't have coaches, the way top athletes did. He said that he didn't know, but that it had always seemed a mistake to him. He had enjoyed the services of a coach all along.

He had a coach? "I was very, very lucky," Perlman said. His wife, Toby, whom he'd known at Juilliard, was a concert-level violinist, and he'd relied on her for the past forty years. "The great challenge in performing is listening to yourself," he said. "Your physicality, the sensation that you have as you play the violin, interferes with your accuracy of listening." What violinists perceive is often quite different from what audiences perceive.

"My wife always says that I don't really know how I play," he told me. "She is an extra ear." She'd tell him if a passage was too fast or too tight or too mechanical—if there was something that needed fixing. Sometimes she has had to puzzle out what might be wrong, asking another expert to describe what she heard as he played.

Her ear provided external judgment. "She is very tough, and that's what I like about it," Perlman says. He doesn't always trust his response when he listens to recordings of his performances. He might think something sounds awful, and then realize he was mistaken: "There is a variation in the ability to listen, as well, I've found." He didn't know if other instrumentalists relied on coaching, but he suspected that many find help like he did. Vocalists, he pointed out, employ voice coaches throughout their careers.

The professional singers I spoke to describe their coaches in nearly identical terms. "We refer to them as our 'outside ears,'" the great soprano Renée Fleming told me. "The voice is so mysterious and fragile. It's mostly involuntary muscles that fuel the instrument. What we hear as we are singing is not what the audience hears." When she's preparing for a concert, she practices with her vocal coach for ninety minutes or so several times a week. "Our voices are very limited in the amount of time we can use them," she explains. After they've put in the hours to attain professional status, she said, singers have about twenty or thirty years to achieve something near their best, and then to sustain that level. For Fleming, "outside ears" have been invaluable at every point.