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## Design for Your Strengths

A counterintuitive insight led to an Olympic medal. The same insight can help your organization achieve breakthrough performance.

BY JOHN K. COYLE

**John K. Coyle***johncoyle**@heartofreallyliving.com*

is founder of the Art of Really Living, an enterprise devoted to helping businesses and individuals grow from their strengths, and a frequent keynote speaker. He is an expert in innovation and design thinking, and a sports commentator for NBC. In 1994, he was a member of the U.S. 5,000-meter speed skating relay team that won the silver medal in the Lillehammer Olympic Games.

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As a senior at Stanford University in 1989, I was passionately interested in mastering two capabilities. The first was design thinking: an influential creative problem-solving method, closely tied to my major in product design (and to the work of management theorist Herbert A. Simon and the IDEO design methods, among others). Design thinking involves a continuous cycle of innovation: understanding an issue by gathering data about it, empathizing with the people involved, ideating new approaches, prototyping one or two of them, and then returning to the understanding stage. Practitioners continually revisit and reframe challenges to ensure that they are solving the most relevant problems.

The other capability I wanted to master was speed skating. I was confident I could qualify for a near-term Olympic bid, for the 1992 Winter games in Albertville, France. During my senior year at Stanford, while studying full time and training myself — no coach, no training program, and very little ice time — I had placed 12th in the world championships for short-track speed skating. I expected that by joining the Olympic team full time, with all the support that entailed, I would soon go from 12th to sixth to first.

Little did I know that my two passions would soon intersect in a way that would teach me the essence of building on my strengths. I would undergo a profoundly humbling experience, in which I would have to treat immense challenges unemotionally, as opportunities to learn and reframe, and to pursue solutions as a design thinker would, with intense passion and unemotional curiosity at the same time.

Most of all, I would have to do the opposite of what others were doing and

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what most experts were telling me to do. Instead of trying to compensate for or fix my weaknesses, I would have to focus on my natural strengths. This did not feel like the right thing to do at first, and bucking the status quo is never easy. But I now believe it is the only way to truly excel. And, I believe, this counterintuitive lesson is exactly what anyone seeking to build a distinctive capability for a team or enterprise must learn.

I did not know this at the time. But through experiences such as my training in Olympic speed skating, and in my coaching of and working with others, I have come to recognize four key rules inherent in designing for your strengths: (1) accept your weaknesses; (2) recognize your specific strengths; (3) solve the right problem (which is not necessarily the problem other people have diagnosed for you); (4) double down on your strengths by accentuating the things that make you great. I spent years focused on improving my weaknesses, and in the end that made me a poorer performer. There is far more leverage in designing for your strengths.

## **1. Accept Your Weaknesses**

After graduation, I moved to Colorado Springs to join the U.S. Olympic speed skating team, living and training at the Olympic Training Center. I was full of hope and confidence, excited to work with the best coaches in the world. Upon arrival, I was put through a series of tests known as the SATs of sports. These included a “maximal volume of oxygen” (VO<sub>2</sub> max) test, which is said to be the most predictive measure of an athlete’s capability in speed skating. It

is an aerobic torture test. You ride a stationary bike and, while you are breathing through a tube, the speed and resistance are ratcheted up until you feel like you are going to die. During my session, I put everything I had into the pedals until I collapsed. I was proud of my effort until I received my results: I had the lowest measured VO<sub>2</sub> of the entire team, by a large margin. I had lasted barely 13 minutes. Later that morning, a 17-year-old Lance Armstrong lasted twice as long. According to the prevailing knowledge about the test and the sport, this meant I didn't really have a shot at being a great speed skater. The current state of knowledge was wrong, of course, but I didn't know that yet.

All of us — individuals, teams, and organizations — have weaknesses. These are not skill gaps; those can be corrected with learning. Weaknesses are inherent deficiencies of talent or capability that do not change even after aggressive efforts to improve them. Pride and our ingrained work ethic may cause us to deny our weaknesses, but acceptance is the first step toward designing for strength.

Neither the coaches nor I wanted to accept the results of the test. But we had to, especially after I took a second test, the Wingate or max power test, two days later. On a stationary bike, you pedal as fast as you can for 30 seconds against heavy resistance, while the device tracks your power output. To my surprise, the Wingate results were even more catastrophic: I passed out cold after 18 seconds, falling off the bike and failing to finish. Again, I had the lowest score on the team for average power output, but the data was interesting in one critical respect. For the first 15 seconds, I had an advantage. When analyzed second by second, the data showed that I had in effect a small thermonuclear reactor in my quadriceps. At its peak, five seconds after the start, my anaerobic output registered 1,740 watts per kilogram, the highest peak power of the team by far. (Anaerobic activity uses no oxygen and thus does not affect the cardiovascular system, but it increases muscular strength.)

Unfortunately, given that the shortest event in speed skating took at least 40 seconds, this strength didn't seem particularly useful. The coaches, after some debate, decided to try to “fix” me as an athlete by focusing on my weaknesses.

“John, you will train harder and longer than anyone on the team to strengthen your aerobic capacity,” said one of them. “While everyone else does jumps and squats, you'll be doing 100-mile bike rides and 15-mile endurance runs. In

two years, we'll have you strong enough for the next Olympic Games.”

In making this decision, the Olympic team was “benchmarking” me — a practice as common in sports as it is in business. The best-in-class standard in this case was five-time Olympic gold medalist Eric Heiden. If I wanted to win, they believed, I would have to train like Eric. They said this with conviction and compassion; they wanted only the best for me. Sadly, they skipped the step that design thinkers call empathy. In retrospect, I see that all of us were ignoring the second rule, below.

## 2. Recognize Your Specific Strengths

Weaknesses tend to be universal and broad. I know this personally; I am essentially terrible at all hand–eye coordination sports or any event lasting more than a couple of minutes. But strengths are often extraordinarily specific. My own strength was a rare gift: 1,740 watts of anaerobic power in short-term bursts. It was like having a superpower — but it wasn't clear, in those training years, exactly what to do with it.

From my earliest days I had been considered fast. Eventually it became clear I was good only at short events, so I became known as a sprinter. But I was not good at all short events, only certain events with an element of leverage or power. I still hadn't learned enough about my singular superpower to describe it as precisely as I can today. I am fast, as a sprinter, in events requiring repeated bursts of power against resistance, with a short rest, all while balancing and traveling at high speeds, through a pack of people moving dangerously fast and passing them at the last possible second to win. Only a few sports fit that description. They include short-track speed skating and velodrome cycling, the only two sports in which I have competed at the world championship level.

For an individual, or for an enterprise, knowing the specific nature of your strengths is incredibly important. Perhaps, as an individual, you are a good communicator. But can you be more specific? For example, are you best at articulating simple concepts underlying complex topics? As a narrator of emotionally powerful stories? Or at analyzing facts and data? Are you better with big audiences? Medium-sized audiences? Small groups? Videos? Visuals? Or words?

[continued on page 7]

# A Strategy Grounded in Your Strengths

by Paul Leinwand

In their efforts to compete, business strategists often forget a basic principle: Build from your strengths. The most successful companies have a clear, well-articulated view of what's important to them and their customers. They understand that the way to win consistently is through what they do rather than what they sell.

These companies also understand that “what they do” is unique to them; they have their own capabilities and practices that no other company could quite duplicate, even if it tried. In that sense, building from your strengths is the most reliable way to differentiate your company.

This advice is easy to state and difficult to follow — not just in business, but in every aspect of human endeavor. Focusing on what you are great at doing is intuitively compelling, but few companies drive their strategy this way. It's too easy to get caught up in chasing what others do — fixing the inevitably long list of weaknesses in your company, or seeking out what's new in a world of change.

But when you understand what you're great at, and design your capabilities and strategy accordingly, you can define how you want to compete, and shape your own future rather than waiting for others to do it for you. John K. Coyle understands this. He has been through grueling challenges to his competitive edge, both in his profession (as a design engineer and consultant) and as an Olympic athlete (in speed skating). As you'll see, he came out the other side with new triumphs and a sharper understanding of the best way to prepare to compete.

## **Paul Leinwand**

*paul.leinwand@pwc.com*

is global managing director of capabilities-driven strategy and growth for Strategy&, PwC's strategy consulting business.

Based in Chicago, he is a principal with PwC US.

Are you better as a facilitator or one on one? Are you a coach? A challenger? A comedian? Or perhaps a listener? All of these are implicit in the catch-all term “good communicator,” but if you don’t know your specific superpower, you can’t leverage it to full advantage.

Because I didn’t yet understand this, I worked relentlessly for the next two years on fixing my weaknesses. I spent hours every day focused on everything I wasn’t good at. This had a couple of unintended consequences. First, I went from being the 12th-ranked speed skater in the world to being ranked 34th the following year. Second, despite all my effort, my VO2 max score failed to improve at all, remaining steady at 52. Not only did this weakness-focused approach fail to improve what I was bad at, it also destroyed the only thing I was good at. During that two-year training period in Colorado Springs, my peak power waned, from 1,740 watts to 1,250 watts. I didn’t even come close to making the U.S. Olympic team for Albertville. I skated slower at the Olympic Team Trials than I had in my very first national team trials nearly 10 years prior, when I was only 13.

Worst of all, I slowly dissolved as a human being. Over those two years I almost stopped talking. All I did was train, eat, sleep; train, eat, sleep. When you use all your willpower just to show up every day, it saps the energy for anything else. I began to feel like the people who, as Henry David Thoreau put it, “lead lives of quiet desperation.” I was a failure. I was terrible. I was ready to quit.

The coaches failed to show any empathy for my strengths and weaknesses, but to their credit, they did not give up on me. They kept up their refrain, “Keep at it! You’re going to break through! Just keep going, you can’t quit now!”

But it didn’t make sense. I started to step back, in my own mind, and wonder: Why was this happening? I used to be good; why was I declining? How many more years would I have to do this until I broke through? And at what cost?

Disheartened, I began to withdraw from the established training regimen. For the next two years I continued to live with the team, but rebelled against their weakness-centered training approach. By adjusting my workouts to better suit my strengths, I mitigated the damages enough to compete in the 1994 Winter Games at Lillehammer, Norway. Although I was not strong enough to

medal in the individual races, I was able to bring home a silver medal from the 5,000-meter relay. During that period, I began to accept the fact that I didn't fit the mold of a champion like Eric Heiden and that I could never be a strong aerobic athlete. But I didn't need to be one to succeed. Only when I realized that, and began to change my life accordingly, could I move forward.

### 3. Solve the Right Problem

A moment of magic accompanies the willingness to quit. It involves gaining a better perspective. Prior to this moment, it is almost impossible to be objective about your challenges. Too many emotions and pressures intrude. But now, you can evaluate your options more dispassionately, and — in the language of design thinking — learn to ask better questions. The problem you are trying to solve may not be the right one to address.

In my case, fixing my weaknesses was the wrong problem to solve. I have since come to think that the same is true for many other people and organizations seeking breakthrough performance. Instead of solving for “how do I fix my weaknesses?” I asked myself, “how can I design for my unique strengths?”

Back when I was growing up in Detroit, I had a cycling coach named Mike Walden. He was a remarkable man; despite being only a club-level coach for the local Wolverine Sports Club, he would ultimately mentor more than 100 national champions, 10 world champions, eight Olympians, and five Olympic medalists (I was one of the last group). In 1990, just two years before I went to Colorado Springs, Walden had been inducted into the U.S. Bicycling Hall of Fame.

Walden spoke in short, sharp barks: pithy phrases, each with a specific and deep meaning, custom-tailored for each person's strengths. That was how he became one of the greatest coaches of all time. His repeated advice to me was, “Coyle! You gotta finish it at the line!” I can remember as an 11-year-old thinking, “Well, duh, where else am I going to finish it?” But what he really meant was, “Coyle, you have a weak aerobic motor, but a great anaerobic engine. You need to time your sprint to win by a tiny margin right at the line. Go too early, and you'll blow up because you have a weak aerobic capacity.” Over the years, following this advice and perfecting my skill, I had won hundreds of races by

the smallest of margins.

Walden was also known for his signature broadcast, shouted dozens of times each practice: “Race your strengths! Race your strengths!” Even after two years of focusing on my weaknesses, I could still hear Walden’s voice in my head, and after the Lillehammer games, I finally decided to follow his advice. That meant quitting the team, but not the sport — and training on my own, doing the opposite of what I had been told for the previous two years.

I used design thinking to reframe the challenge. Instead of “How do I fix my aerobic weakness?” I asked myself, “How can I leverage my anaerobic strength?” But that wasn’t specific enough. So I zeroed in on the advantage my strengths might provide. I asked, “How can I use my strengths to get to the finish line in less time?” This was still not specific enough. Eventually, by accepting my aerobic weaknesses, I realized that I couldn’t skate faster and farther. So I asked myself: “What if I can simply go less far?” I figured that by traveling 15 percent less far than my opponents, I could skate 14 percent slower and still win.

In short-track skating, the physics are striking. The track has tight corners with a 25-meter radius. A world-class speed skater enters a corner at 31 miles an hour, and, exactly two seconds later, exits at 31 miles an hour going the opposite direction. The equivalent acceleration is zero to 62 mph in two seconds, which even most automobiles cannot match. This generates a gravitational force of 2.7 gs — almost as strong as a space shuttle liftoff. During a race, this happens every 4.5 seconds. For a 170-pound skater like me, racing each corner is like doing a 500-pound, one-legged squat from deeper than 90 degrees, while leaning over at 68 degrees, while traveling 31 miles an hour on an 18-inch-long, one-millimeter-wide blade, on ice, headed directly at a wall.

The conventional best practices of the sport were designed to help speed skaters cope with these realities. To diminish the g-forces and to reduce the likelihood of crashing, everyone skated a wider track. This expanded the radius of the turn from 25 to more than 28 meters, reducing the g-forces from 2.7 to maybe 2.3 or 2.4. But it also increased the track length from 110 to as much as 125 meters, nearly 15 percent farther than strictly necessary.

I decided to try a new technique: going a shorter distance. I had always loved “pivoting,” or diving directly into a corner, which is necessary sometimes to pass

Many people assume that being an Olympic athlete requires a lot of discipline. But in my experience, the discipline is only physical. Building capabilities on your own takes much more mental discipline.

another skater. What if I pivoted into every corner? It would reduce my distance. It would also be very difficult and super-dangerous. Many people crash during the dive-in move. But it could be perfected with training, and I had the one natural strength required: the ability to provide a huge surge of power for a few seconds with a short rest, over and over again. Which brings me to my fourth rule.

#### **4. Double Down on Your Strengths**

Strengths and weaknesses are often mirrors of each other. My aerobic weakness had, as its inverse, a superstrength of anaerobic power. Indeed, these two attributes often go hand in hand. Finally, I had figured out how to put this to use.

After the Lillehammer Olympics, I dropped out of the training camp. But I was more dedicated than ever to skating. I moved to Milwaukee, and without the financial or logistical support of the Olympic Committee, began a regimen of work, business school, and self-guided athletic training. I woke up every day at 6 a.m. and went to the rink. There I put on my pads and blocks and skated from 7 until 9:30. Then I changed into a suit for my part-time job as an engineer. At 3 p.m., I left work in Milwaukee and drove to the Kellogg Business School at Northwestern, a two-hour drive. I had class from 6 to 9 p.m., usually arrived home at 11, and lifted weights until midnight. I did that every day for two and a half years.

Many people assume that being an Olympic athlete requires a lot of discipline. But in my experience, the discipline is only physical. Someone is there to make sure you get up, start warmups, practice, and eat right. It's like being in

the military. Building capabilities on your own, without someone else's playbook, takes much more mental discipline.

One event made it easier for me, psychologically. A few months after starting this regimen, I visited the Olympic Training Center in Lake Placid, N.Y. I was still nominally on the team, and I thought this would be a welcome reunion. But at the first ice session, the coach pulled me aside. "I'm very sorry, John," he said, "but the skaters and coaches have voted. You can't skate with the team. You have to go home." I was furious beyond belief, but it was one of the best things that could have happened. Solitary training was difficult, but after that event, each morning I got up with vigor, flipped a single-finger salute to Lake Placid, and got to work. It also showed me how unpopular you can be if you make a decision to buck conventional wisdom.

The first real test of my new approach came about a year after I started, when I went to the 1995 U.S. World Team trials for a three-day national competition. I was nervous because I didn't want to be humiliated. I arrived a week ahead of the event and then promptly got a severe case of the flu, which meant I couldn't train much for most of that week. On the first day of the trials, the preliminary event was not my forte. It was a 1,000-meter time trial, which goes on for about a minute and 40 seconds. The top 16 racers qualify, and the other 80 competitors go home. I was sure I would be thoroughly embarrassed: the rebel, the wild child, training without a team. Despite how nervous and sick I felt, I showed up on the line.

This race is run pursuit-style: Two skaters start on opposite sides of the rink, chasing each other around the loop. One sign that you're falling behind is when your "pair skater" catches up and skates past you. My pair was a strong skater who had been second in the Olympic trials the year before. As we lined up, I focused my attention on my approach: skating directly at the blocks and diving in. If my pair didn't catch me, I thought I might have a shot at being in the top 16, which would allow me to skate the remainder of the competition.

After the starting gun, I entered a dreamlike flow state. I dove into each turn, just millimeters from each block, ice flicking up off my pivoting blades. I coasted the straightaways and felt the g-forces as I surged through tight corners. Time went into slow motion, and I didn't feel like I was going fast.

After a couple of laps, I noticed something strange. I was catching my pair skater fairly quickly. Because of the flu, I knew I wasn't at my best, so I thought he must be really out of shape. Then I forgot about him, resuming the intense focus on skating "my" track. At my fourth lap, the judges made him swing wide and I passed him. Around the sixth lap, I noticed that the rink was very quiet. Normally, these competitions are noisy; there are 400 people in a small space, with coaches yelling, parents cheering, athletes sharpening skates, and kids running around. Not this time. I allowed my awareness to expand and noticed that there were faces pressed against the glass. I looked at the lap times, and the lap card said ".2". I didn't know if that was 10.2 or 9.2 seconds per lap. In speed skating, the margins are tiny; the difference between first and second place is often measured in hundredths of a second. I knew that nobody could skate as fast as 9.2 — it was faster than the world record — and 10.2 was way too slow. So I just ignored the numbers and kept skating.

After nine laps, I finished the race. My coach from the Olympic team, one of those who had rejected me at Lake Placid, was there. He jumped out on the ice with his stopwatch held high and stood directly in my path. I was traveling at 30 mph directly at him, so I tried to dash around him, but he stayed in my way so I had to skid to a stop. He looked angry. He said, "Coyle, what the hell have you been doing!?"

I was about to burst into tears. I had been voted off the island; I had skated alone for a year; I was trying a totally new technique; and I was sick as a dog. All my fears of humiliation boiled over. But I forced my spine to stiffen and said, with false bravado, "I...I have been sick!"

His eyes met mine. He smiled. "No," he said, "you don't understand. You just broke the U.S. record by five full seconds." I had in fact skated 9.2 seconds per lap. "You skated faster than the world record."

I was speechless. In fact, I didn't believe it. I was immediately convinced I had skated a lap too short and my failure would quickly be rooted out. So I calmly exited the ice and reviewed the tape on the video camera, counting laps. Only then did I realize the scale of the breakthrough.

The best part was the cause. I hadn't skated any faster. I had no new technology. I didn't invest in a new wind tunnel-tested skinsuit or new skates or blades.

I wasn't doping or taking supplements. I was still the same me. I had simply skated less far, and in so doing, I had built on my strengths instead of trying to fix my weaknesses. This type of design thinking, combined with my natural anaerobic power, was my distinctive capability.

During the next two days of that competition, I broke every U.S. record. Later that year, I went on to set the fastest time in the world in the 500 meters at the world championships.

### **On Building Capabilities**

After that event, I continued my own form of training. I had high hopes of bringing home a gold medal at the 1998 Winter Olympics in Nagano, Japan. But in 1997, I was persuaded to return to the Olympic Training Center to train with the team once again. The coaches, still stuck in their mental model of an aerobic athlete, immediately put me on their old benchmarked approach, and I went along with them. It's not unlike a business that innovates a bold new way of doing business, but after a period of success finds itself slipping back into familiar patterns, just because it doesn't have full confidence in its new approach. But slipping back had devastating effects for me. Not only did I not bring home a medal in 1998; I failed again to make the team. I was beyond humiliated and embarrassed. In my mind I had disappointed everyone who had believed in or invested in me. After the last race at the Olympic trials in Lake Placid, I got in my car and drove 45 hours straight to Phoenix, Ariz., to leave the cold behind and start a whole new life.

Leaving skating was like going through a difficult divorce. Between 1997 and 2006, I had nothing to do with the sport. I gave my silver medal to my parents and cut off all communications with my skating friends. I didn't follow the results or watch skating on TV. I joined a management consulting firm called Diamond Technology and focused on design thinking and related work. I married and started a family. With time, the pain and disappointment faded.

Then, in 2006, I received a phone call from NBC asking me to be the speed skating analyst for the Olympics coverage in Torino, Italy. I couldn't say no, and shortly thereafter I found myself thrust back in the sport, interviewing the parents, skaters, and coaches to gather stories to feed to the commentators.

Something happened during that Olympics that changed my life forever. I was at dinner with the skaters and their parents when one of the parents pulled me aside to a quiet corner of the restaurant. “John, I have something important to tell you.” He seemed serious, even nervous. “I just want you to know that we wouldn’t be here right now if it wasn’t for something you did...” He trailed off.

I was confused. “I don’t know what you mean.”

“You won’t remember, but 12 years ago you brought your silver medal to a little reception in Bay City, Michigan. You put it around my son Alex’s neck. He was 11 years old at the time, and the next day he joined the Bay City Speedskating Club.” His eyes welled up. “And tomorrow, Alex is skating for a gold medal.”

This changed everything. I experienced a sudden release from years of feeling like a failure. I got involved again, started coaching the local clubs, got my daughter started in speed skating, and started announcing competitions and world cup events. I also, for the first time, began talking about my experiences, sharing my stories.

My biggest failure, just like my biggest weakness, has now become a source of success. As I share my story, I connect on a human level with people around the world. People everywhere relate to the narrative of fighting a system and forging a new path — not for the sake of bucking the status quo, but because everyone needs to find his or her own distinctive path to success. It is not easy to know your strengths, and it is even more difficult to put them to use and build on them. It may require you to look outside standard approaches to getting things done. But if you can step back, accept your weaknesses, recognize your specific strengths, solve the right problems, and design your own way of winning, you too might find your life has changed. This way of going through life is not for everyone, perhaps. But neither is the struggle many of us put ourselves through — the struggle against our own innate capabilities. +

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