

Overcoming the Barriers Between Your Ears

**YOUR BIGGEST BARRIERS TO SUCCESS MAY
BE SQUARE BETWEEN YOUR EARS**

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Introduction

I am greatly honored to be invited to speak about my journey since leaving Lake-Sumter Community College, or as it was expressed to me “LSCC student makes good.” I am equally humbled by the thought so many other graduates have accomplished so much more than I have, individually and collectively.

For example, many of my LSCC classmates in the 1960s and my LSCC students in the 1970s have had fabulous careers and made significant contributions to society including a research scientist at a major corporation who has several patents, a local judge who serves on the Lake County Educational Foundation, a local orthodontist who served in the Gulf War, a chief executive officer of a local bank, a vice mayor of a local city, a local pharmacist, 3-4 college professors who have gone on to become senior administrators, and a nationally recognized artist. These are the ones I could track down. I am sure there are countless others. Moreover, I suspect quite a few of the graduates from programs that have been added or extended since I left LSCC in the seventies, such as nursing, criminal justice, and early childhood education, have had equally impressive careers in areas essential to a thriving community. They save lives!

Indeed, I don't even consider myself the most accomplished LSCC graduate in my family. My sister Cathy is nationally recognized as an award winning artist and my wife Carolyn had a successful career with Hewlett-Packard before joining me at Boston College, and last semester her teaching evaluations were higher than mine. Still, I am older than both Cathy and Carolyn and graduated from LSCC earlier. Thus, at least in principle, I may have more wisdom to share.

Regardless, at the outset I want to emphasize that while my talk will center on challenges I confronted during my journey and principles that have guided me along the way, I do so with a great deal of appreciation for the fact that many other highly successful graduates have faced similar challenges and have similar principles, and with the hope that those of you who are starting this journey can learn from our experiences.

As long as we are on the topic of old age, I recognize some of you may be here primarily to earn extra credit in one of your courses and that many of you are convinced my challenges 45 years ago bear very little resemblance to yours today and my guiding principles are no longer applicable. Well you are partly correct: I am older than the oak trees in front of the library. In fact, I remember when they were planted. This said, there are two very good reasons why you might learn something today. First, I regularly share many of the points I will make today with freshmen and sophomores at Boston College and these points are generally well received. Second, when Paul McCartney of Beatles fame was about your age he learned: “it is very important to listen to grown-ups... occasionally ... but not too often.” (*Sunday Morning*, CBS, December 13, 2009). I am hoping this is one of those occasions for most of you.

So let's get started with a story that inspired the title of today's talk. When I was teaching at LSCC in the 1970s, I supplemented my income by teaching summer courses at Sumter Correctional Institute. That is where I met James, who shared an insight that significantly influenced my life. By way of background, James was a very good student who was apparently renowned within the Florida prison system for his uncanny ability to break out of prison. When

I asked his classmates why James was absent from class, they gave a whole new meaning to the expression he is out for a few days.

One evening during a class break I asked James what it was like to be in prison. His answer was masterful: “You already know the answer because you too are in prison. The only difference between you and me is I know where my walls are” and, he might have added, I know how to get over them. This experience stimulated the first principle I want to share with you and the title of today’s talk:

First Principle: Overcome the barriers between your ears

- Your biggest barriers to success may be square between your ears.
- Undoubtedly, there are external barriers that can impede your progress; barriers over which you have limited control: your race, your gender, your genes, the length of your hair.
- But you have considerable control over your environment and your failure to exercise this control, formulate a vision, and summon the courage to seize opportunities may be the biggest barriers to your success.

The biggest barrier between my ears when I arrived at LSCC was a lack of confidence. I recall telling my mother at the end of my first day that everyone else was so much smarter than me and that I would never succeed. Had I known and embraced our second principle back then, my college years would have been considerably less stressful. However, I didn’t learn it until years later when I was on a run with an Olympic medalist.

In 1972 Frank Shorter won the Olympic gold medal in the marathon and started a running craze in America that continues to this day. Shortly thereafter, he moved to Gainesville and, more precisely, to the apartment next to mine. There he ran with the Florida Track Club, along with several other world class runners including Marty Liquori, who was then the world record holder in the mile. I also ran with them 2-3 times a week during their 10 mile warm ups for track work and was either the 25th or 26th slowest in the group out of 26 runners. More on this later.

For now, I want to share an exchange that took place on one of these runs. Someone asked Shorter how he managed to run 200 miles a week for the six months leading up to the marathon. Implicit in this question was another one: How did he commit to the years of strenuous training it took to get to the point where he could run 200 miles a week for six months? His answer, like James’s answer, significantly changed the way I viewed my life: “It would have been easy to run 200 miles a week if I had known I would win.” This leads to our second principle for today, which is also the theme of Malcolm Gladwell’s recent bestselling book, Outliers: The Story of Success.

Second Principle: Don’t judge your potential too quickly

- You don’t know how good you can become until you pay a steep price. Research indicates it takes 10,000 hours of focused hard work to become an expert.
- Don’t confuse your lack of knowledge and skills, which can be a very real barrier, with your potential talent, which is an imagined barrier.

- The 10,000 hour investment has very little downside: You can become very proficient even if you later discover you don't have the genes to be the very best.

So, my error my first day at LSCC was I judged my intellect long before I put in 10,000 hours of focused hard work. Moreover, I was comparing myself to other students without knowing how many hours they had put in when they arrived. We don't all arrive at college with the same knowledge and skills. For example, many students at the elite universities where I have taught come from homes where both parents have college degrees; where education is highly valued; and where ideas, books, cultural activities and other experiences have prepared them with the requisite knowledge, skills, and confidence to succeed in academic studies. By contrast, I and many of my LSCC classmates came from families where our parents had not attended college; where learning to work with our hands was emphasized far more than learning to work with our minds; and where our exposure to the requisite knowledge, skills, and encouragement to succeed in academic studies fell considerably short of the exposure of most students at elite universities.

This is an example of a situation where an imagined barrier can exaggerate the consequences of an actual barrier: When many of us arrived at LSCC, we worried, to varying degrees, about whether we had the talent to succeed in our studies and to compete thereafter during our careers. However, we were confusing our lack of knowledge and skills – our ignorance – which was a very real barrier, with our potential talent, which was an imagined barrier that we were trying to assess far too early in our studies.

Another barrier between my ears and many of my classmates' ears when we arrived at LSCC, which I suspect many of you share, was we exaggerated the consequences of our financial constraints. We worried that we would not have enough money to finish college or wouldn't have enough time to study because we were spending too much time working part-time jobs. These are very real barriers with real consequences, which can differ considerably across students. But they are not show stoppers if you adhere to the next two principles.

Third Principle: Don't worry about money

- When correctly calibrated, your financial constraints are minor impediments relative to those confronted in impoverished countries: jobs and financial aid are generally available and you have access to affordable colleges that give you opportunities to get ahead.
- Your biggest challenge is to recognize that, given these opportunities, your financial constraints, while real, are relatively insignificant barriers to your success.

For example, one of my Harvard students received a billion-dollar gift from his father while he was taking my course. By contrast, when I and my classmates were students at LSCC most of our parents could not afford to give us very much money, if any, and as a result we worked 20-40 hours per week to overcome financial barriers. Still, we have already seen that this financial endowment inequity between my Harvard student and those of us at LSCC did not preclude us from having highly successful lives. It simply meant we were less likely to become billionaires. And there were silver linings: we were

generally much hungrier than students from wealthy families at elite universities and thus more motivated to get ahead. We also developed a good deal of self discipline and strong worth ethics.

Fourth Principle: Don't worry about time

There is plenty of time:

- 168 hours in a week.
- 8,736 hours in a year.
- 218,400 hours in twenty-five years.

Manage it wisely:

- Know your priorities
- Know the opportunity cost of your time
- Find time for reflection:
 - What have I learned from recent experiences?
 - How can I spend my time more wisely?

The next principle centers on a major impediment to success—fear of failure.

Fifth Principle: Stretch yourself and be willing to fail

- You must set high goals and stretch yourself to realize your potential.
- Only by failing periodically will you know you are pushing yourself to the envelope of your talent — that you are living your life to its fullest.
- Failing facilitates progress towards your vision when:
 - You compete with the very best.
 - Identify lessons learned.

Earlier, I indicated I ran with Frank Shorter and several other world-class runners and I was either the slowest or second slowest runner in a group of twenty five runners. What I didn't tell you is how bad I wanted to beat Frank Shorter in one of our daily training runs, when he didn't know we were racing. It never happened! Each day, with about a mile or so to go on a 10-12 mile run at 5:30 pace, without even breathing hard or slowing their conversation, Shorter and the others would subconsciously pick up the pace to where I couldn't keep up. However, while I failed to meet my goal each day, I became a much better runner by running with faster runners. This was more important because my broader personal mission is to stretch my mind, body, and soul as far as possible. Thus, while I was losing each day when measured by external comparisons, I was winning when measured by my own sense of what is important.

The same thing happened at Stanford ten years later when I was just starting my research career. To become a better researcher, I worked with two of the most accomplished professors in finance and accounting, one of whom was a Nobel Laureate. While conducting research and teaching with them almost daily for four years, my goal was to beat them in an argument. Similar to run-

ning with Frank Shorter, it never happened. However, I became a much better scholar and stretched my mind in ways I never thought possible, which was an important aspect of my personal vision.

These stories are a nice transition to the second part of my talk. Thus far, I have been identifying critical barriers to success and suggesting ways to overcome them. However, you must do more than avoid barriers to get the most out of your life. You must push yourself as far as possible beyond the barriers. Next, we turn to principles that can help you do this, starting with the most important: deciding what you want to accomplish with your life.

Sixth Principle: Have a clear compelling vision

- You should have a vision of what you want to accomplish in your life and a strategy to achieve this.
- Your vision is the framework for your short-term goals and the source of your internal motivation.
- It fuels the fire in your belly, gives you a sense of direction and fulfillment, and determines your priorities.
- Your vision need not be specific, but it must compel you to action in a direction you want to go.

Some people know exactly what they want to be at a young age and never veer from this path. For example, our son informed us at age eleven that he wanted to be a dentist and thirty years later he is an accomplished periodontist with a thriving practice.

By contrast, my vision evolved over several years and the first time I recall consciously thinking about it was my first day at LSCC. More precisely, it was later that evening after crying on my mother's shoulder and realizing I needed to compensate for what I perceived to be a lack of talent. I decided to do two things: First, I would make full use of the two most valuable things I got from my parents: a strong work ethic from my father and a capacity to love and more generally to care about and work closely with others from my mother. Second, I decided what I wanted to accomplish with my life and developed a strategy to succeed.

My vision was simple and rather vague, but it met the condition that it compelled me in a direction I wanted to go. I decided I wanted to get ahead in life by earning a college degree in something that would afford me a more comfortable lifestyle than I would otherwise get if I dropped out of college. I had plenty of motivation because the only job I could find the summer before college was working in orange groves 8-12 hours a day for \$1.05 per hour. My strategy was also simple: I would view college as a job and work at least as many hours at it as I would have had to work if I was not in college.

Importantly, my vision was entirely pragmatic. I wasn't motivated to learn for learning sake or to acquire knowledge and skills for any other reason that it would prepare me for a job that would give me a better lifestyle and by this I meant more money. College was a means to an end that was defined solely by material things. There was no intrinsic motivation in the sense that I was trying to become a better person or gain a deeper understanding of myself or my environment.

All of this changed shortly thereafter when I fell under the spell of Colonel Gus Wirak, a legend in the LSCC math department and West Point graduate who aroused my intellectual curiosity and instilled a passion for learning. He was my first mentor, which leads to our next principle:

Seventh Principle: Seek role models and mentors

- Seek role models and mentors to help you grow.
- Role models are people you admire who have traits you wish to emulate.
- Mentors are role models who are willing to nurture you.
- Mentors show you how to get to the next level, encourage you to push forward when you want to throw in the towel, and humble you relentlessly when your head starts to swell.

Since graduating from LSCC, I have had the great fortune to have had several role models, including my wife Carolyn, the Nobel Laureate I mentioned earlier, and other renowned scholars. I needed each of them to advance to the next and it all started with Gus Wirak.

The Colonel, as he was respectfully known to faculty and students alike had an uncanny ability to tease our minds with challenging puzzles and math problems he distributed every Friday, with a one week deadline. On the surface, these puzzles seemed totally impractical. By this I mean they did not focus on the multitude of math skills that could directly benefit our performance in subsequent courses or on our careers. To be sure, we also learned these skills, but not by solving puzzles. Similarly, on the surface, we didn't seem to get compensated nearly enough for the hours we slaved over them: at best we would get a couple of bonus points.

So why did we work so hard on them? And what did the Colonel know that we didn't yet know about the benefits of solving puzzles? Early on, I suspect we were primarily motivated by the bonus points: the Colonel's tests were tough and thus we could always use extra points.

However, it didn't take long before our competitive spirits became more important than the points: some of the puzzles were very challenging and solving them and getting a pat on the back from the Colonel became a badge of honor. This leads to our eighth principle, which I learned from Warren Buffett, one of the richest men in the world, when he visited Boston College several years ago:

Eighth Principle: Know what counts

- Warren Buffett claims what counts most in life is that we are loved by the people we want to love us.
- An extension of this concept is what counts most in the workplace is to be respected by the people we want to respect us.
- Mutual respect in the workplace promotes productive and enjoyable collaboration.

We wanted the Colonel to respect us because we respected him greatly and this motivated us to work more diligently on the puzzles. Thus, we were com-

pensated by the respect we got from the Colonel and classmates more than by the bonus points. And after 40 years of teaching, I now realize this respect was mutual. We were working together to create a wonderful learning experience for all involved.

This idea that we can be highly motivated by something other than external rewards and that we can accomplish a great deal when we work together to build mutual respect are captured in our ninth and tenth principles.

Ninth Principle: Your success depends greatly on others' success

- Commit to the folks you interact with and recognize that their success is your success.
- This concept extends outward to marriages, families, friends, communities, and countries.
 - A thriving capitalist society balances:
 - Private and public interests
 - Competition and cooperation
 - Wealth generation with wealth distribution
 - Meritocracy and benevolence

This principal is one my students learn about on the first day of class when I tell them I am a very, very good teacher, but I am not great. Similarly, I am a very good father, but I am not great. Still, I have a great family and great courses when we all work together to create an exceptional experience for all involved.

Tenth Principle: Be a professional— have pride in your work

- Regardless of your job, be a professional, that is someone who has pride in their work, has integrity and is trust worthy.
- Set your standards higher than those required by your employer and take personal pride in the difference.
- Pride is the part of your work that belongs to you.

This is a lesson I learned from my parents that was reinforced by the Colonel and virtually everyone else I have worked with over the years who I have greatly respected.

This progression from being motivated by bonus points to being motivated by respect from our peers and the Colonel continued. We soon arrived at the pinnacle of motivation: we became more motivated by an intrinsic desire to solve puzzles than by the extrinsic rewards we received from others. Of course, we still wanted the extrinsic rewards, but we were increasingly driven by our intellectual curiosity. The Colonel helped us rediscover the intellectual curiosity we had as toddlers, which leads to our eleventh principle.

Eleventh Principle: Rediscover your intellectual curiosity

- Four year olds bubble over with intellectual curiosity: In a fervent quest to understand their world, they wear out their parents with “why” and “why not” questions.
- By contrast, far too many college students and faculty fixate on one question: “Will it be on the test?”
- Increasingly, this fixation is a recipe for disaster.
- Addressing this issue is essential for you to succeed in a knowledge economy and, more importantly, for your generation to maintain your current standard of living by successfully competing with other nations.

I suspect the Colonel never foresaw your crisis. Yet, the capacity for your generation to succeed in a knowledge economy depends largely on your ability to acquire the critical thinking skills we received from solving puzzles.

The Colonel knew there were much greater benefits to solving puzzles than quenching our intellectual curiosity. He realized full well that most of us tackle puzzles throughout our lives as we search for opportunities and confront challenges and that our ability to embrace and solve puzzles and more generally think critically about important issues profoundly affects the quality of our lives.

More generally, the quality of our lives depends directly and profoundly on the extent to which we can think critically about issues at the micro level, as we make decisions individually, and at the macro level, as we make decisions collectively through businesses, regulatory bodies, the media, courts, charitable organizations, and legislative bodies.

For this reason, it is imperative for all of us, particularly those of you in the audience who are students, to continually increase our capacity to think more deeply about issues. Why is this issue more important for students? For the answer we turn to our twelfth principle:

Twelfth Principle: Create highly valued human capital

- Your generation’s challenge, which to a lesser extent is shared by your parents and grandparents, is to create human capital that has high financial and personal value.
- You will inherit \$50 trillion of U.S. government debt.
- This means the collective quality of your lives will depend on your capacity to create more than \$50 trillion of assets.
- To this end, you must compete successfully in a fiercely competitive global economy where your capacity to gain a competitive advantage will depend on your individual and collective capacity to out think your global competitors.

Given this tremendous challenge, it is imperative that your generation understand how to develop human capital that has high financial value. Of course, it is also important for you to develop human capital that does not necessarily have financial value but increases the quality of your life such as your capacity to appreciate theatre, literature, history and numerous other things.

To this end, you need to know how to identify the value drivers of human capital. These are directly related to your ability to think critically about issues. To this end we move to our thirteenth principle:

Thirteenth Principle: Move up the thinking hierarchy

Thinking covers a broad continuum. Progress along this continuum can be gauged by the types of questions we can pose and answer.

1. The capacity to answer questions with universally agreed upon unique answers.
2. The capacity to answer questions where experts reasonably disagree on the answers and where arguments are grounded in logic, theory, and facts.
3. The capacity to be innovative by asking and answering questions that challenge the status quo.

Let's take a closer look at this hierarchy and its implications for gaining competitive advantage in a knowledge economy. Questions within the first category can be classified further according to how challenging they are to answer. The most basic questions in this category test our command of facts:

- What are the colors of the spectrum?
- Who is Chief Justice of the Supreme Court?
- How many lines is a traditional English sonnet?
- What is the accounting entry to purchase inventories on account? What body temperature range is considered normal for toddlers?
- How many members are in the Black Eyed Peas?

While collecting and regurgitating facts does not require a deep level of thinking, success in many jobs and social settings depends directly on one's capacity to recall facts. However, knowing facts alone will not move you very far up career and social ladders. Anyone who has taken the SAT exam or other assessment exams that are used to determine whether we are ready to progress to the next level knows some questions with universally agreed upon answers can be quite challenging. In fact, deriving and explaining their answers is often quite demanding. For example:

- How does Twitter work?
- How do you compute the present value of the future cash flows associated with a loan?
- How do cells get energy for their functioning?
- What is the present perfect conjugation of the verb to sleep?
- What are the criteria for determining when companies can recognize revenues associated with sales?

In many careers, employees are rewarded both financially and personally (in terms of pride in doing a job right) to the extent they gain the expertise associated with answering questions such as these.

Because they have correct answers, questions from the first level of the thinking hierarchy can be tested objectively and can be graded electronically. This means using these questions on exams to assess performance and thus to motivate learning is relatively inexpensive. Still, this is a situation where technology is a two edged sword: Increasingly, this type of human capital is becoming commoditized: The knowledge and skills needed to answer questions with correct answers are being taught effectively through electronic media to learners around the world at no cost or low cost and related tasks are being performed by robots.

Thus, to the extent we restrict education to mastering questions at this first level of the hierarchy, your generation will increasingly run the risk that jobs will be outsourced to robots or developing countries. You must become proficient at answering them because they are foundational for the second and third levels of thinking. But they won't be enough.

Questions in the second level of the thinking hierarchy are often referred to as open ended questions because they don't have correct answers. For example:

- What caused the recent financial crisis?
- Why have social networking sites become so popular? Who is the best lead guitarist in the world?
- What are the three best companies to invest in today? To what extent is global warming caused by humans?
- Why is Steve Jobs, the co-founder and CEO of Apple, so creative?

People who become highly proficient at defending their answers to such questions persuasively and responsibly tend to garner significant financial and personal rewards.

At least for now, this portion of our human capital can't be taught effectively through electronic media and more generally can't be commoditized or easily outsourced to developing countries or robots. This suggests, we can individually and collectively gain competitive advantage by becoming proficient in this area. However, there are two threats to this strategy: The first is the increasing pressure to teach to tests that focus exclusively on questions that have correct answers, which is appropriate to a limited degree, but destructive when it displaces the time needed to prepare students to address the second and third thinking levels. Unfortunately, this is increasingly the case. Moreover, the increased emphasis on standardized assessment tests is often motivated by a concern that American students do not perform as well on such tests as their foreign counterparts. Some of these concerns are well founded. Still, emphasizing mastery of questions where there are correct answers, where we can't gain a competitive advantage, to the point where we crowd out the time needed to learn how to make informed arguments in situations where there are not correct answers would seem to be a recipe for disaster.

A second threat to our ability to gain competitive advantage from learning how to make informed arguments in situations where there are not correct answers is risk aversion associated with excessive litigation or reputational risk. For example, doctors, policemen, firemen, teachers, reporters, and anyone else who must exercise professional judgment while performing their jobs need to know they have the latitude to exercise reasonable judgment without being sued or attacked by the media.

The third and highest level of the thinking hierarchy is the capacity to be innovative. Experts generally agree that innovation depends on the capacity to ask the right questions more than on the capacity to answer them and it frequently entails challenging the status quo. For example, Steve Jobs challenged the music industry with iTunes by explicitly or implicitly asking “Why do recording artists need recording companies and even if they do need them, why do the recording companies control distribution?” More generally, innovation often requires thinking way outside the box and taking enormous reputational and financial risks. This is why America has been so innovative: historically, we have encouraged tremendous freedom of thought and provided incentives that motivated venture capitalists to place big bets on risky ideas, including protecting intellectual property and offering low tax rates on capital gains.

Our fourteenth and last principle suggests a strategy that exploits America’s proven competitive advantages:

Fourteenth Principle: Exploit our biggest competitive advantage

- Our best strategy is to collectively become more proficient at the higher level thinking skills. This strategy will only work if we create the legal, economic, and social climate needed for it to succeed. This will not be easy.
- However, we have a long history of reacting favorably in a crisis and have won in the past because of our commitment to freedom of thought, meritocracy, individualism, and risk taking.
- These are arguably the most valuable assets on our collective balance sheet and they are worth much more than \$50 trillion if we make the most of them.

Summary

Live your life to the fullest:

- Overcome the barriers between your ears.
- Don’t judge your potential too quickly.
- Don’t worry about money.
- Don’t worry about time.
- Stretch yourself and be willing to fail.
- Have a compelling vision.
- Seek role models and mentors.
- Know what counts.
- Your success depends on others’ success.
- Be a professional – have pride in your work.
- Rediscover your intellectual curiosity.
- Develop highly valued human capital.
- Move up the thinking hierarchy.
- Exploit our biggest competitive advantage.

Closing Thought

Take your passion and make it happen.

“Flashdance...What a Feeling”, by Irene Cara