Our “default future”

Robbin G. Cohen, MD, MMM

After years of speaking out of turn at meetings in order to get my 2 cents in, or interrupting when perhaps I should be listening; it occurred to me that, whereas it took only 2 or 3 years as a child to learn how to speak, it's taken over 50 years to learn when not to. So for someone who virtually always has something to say, you can imagine my predicament when I realized that no personal words, no matter how heartfelt, no historical quotation, no prose or poetry could adequately express my gratitude for the honor of standing before you this morning. Nor could they express the affection that my family and I feel for this organization and you, its members. Thank you so very, very much. To those of you on the council, the program, membership, and local arrangements committees, to Jon Blackstone, Heather Nutter, and Crystal Beatrice, I have appreciated your friendship, your advice, and your expertise in contributing to what is certainly my favorite organization. If you are a new member, a surgical resident, or have not previously attended an annual meeting of The Western Thoracic Surgical Association (WTSA), we welcome you and hope that you brought your families.

In his presidential address to the Southern Thoracic Surgical Association in 1999, Bill Baumgartner¹ spoke of the importance of core values and how they define not only truly visionary businesses and organizations but also successful individuals as well. He described core values as an organization's essential and enduring tenets, not to be compromised for financial gain or short-term expediency.² A great example of core values are those of the Walt Disney company: “No cynicism allowed, continuous progress via creativity, dreams, and imagination; to bring happiness to millions; and to celebrate, nurture, and promulgate ‘whole-some American values.’”³ This year the council believed that we should strengthen our constitution and bylaws by identifying core values for the WTSA. In choosing them, we considered what the founders of our organization had in mind as they envisioned the Samson Society, as well as the obligation with which we will face the future. The core values that we chose are as follows: *scientific endeavor*

in a collegial environment; education and progress; the development of young surgeons; professionalism; family and friendship. Now you might say that this all sounds pretty obvious and hope that we didn't spend too much time working on it, and you would be right; as an organization it is clear what defines us. Furthermore, these values do not mean that we won't change. In fact, we have changed in order to prosper. We've broadened our membership criteria to become inclusive rather than exclusive, and we've expanded our relationships with industry to bolster our finances and make it more affordable for young families to attend our annual meetings. However, these changes only strengthen our core values. It is my opinion that we embrace professionalism, collegiality, family, and friendship better than any other surgical organization in the world. As for scientific endeavor and education, our sessions are relevant and our program selection process is intensely competitive. In fact, for those of you with papers on the scientific program this year, I congratulate you. I was recently counting up my rejection letters for abstracts that I have submitted to the WTSA over the years, and I can honestly tell you that it is easier to become president of this organization than it is to get a paper accepted onto the scientific program.

They say that if you see a turtle sitting on a fencepost he had help getting up there, and for me that would be an understatement. I will always be indebted to the Cheyenne, Wyoming, community for providing such a nurturing environment in which to grow up and for continuing to welcome my family and me whenever we visit. My dad was for several years the only formally trained pediatrician in the state of Wyoming. He was a role model for all physicians as he served our city and state with compassion, clinical acumen, and a unique sense of humor. Certainly if he were alive today, he would be the proudest person in the room. My mother taught me that virtually everything in the world can be improved with music and that the beauty of the arts should be enjoyed by everyone, no matter how rural their circumstances. My brothers, Craig and Brent, have been a great source of friendship, advice, and support as only brothers can.

Throughout my career, I have had the privilege of walking in huge footsteps. My mentors were giants to me, not only for their scientific and professional accomplishments but also because they chose to spend time on me and to include me in their plans, often when it was not convenient or necessary. At the University of Colorado School of Medicine it was Drs Gene Moore and Ernie Dunn, who had just created the trauma laboratory in the basement of the Denver General Hospital. Under their supervision, I put my first stitches in a beating heart. At Stanford, I remember

From the Department of Cardiothoracic Surgery, Keck/USC School of Medicine, Los Angeles, Calif.

Read at the 37th Annual Meeting of The Western Thoracic Surgical Association, Colorado Springs, Colorado, June 22-25, 2011.

Received for publication July 28, 2011; accepted for publication July 29, 2011; available ahead of print Sept 16, 2011.

Address for reprints: Robbin G. Cohen, MD, MMM, Healthcare Consultation Center II, 1520 San Pablo St, Suite 4300, Los Angeles, CA 90033 (E-mail: rcohen@med.usc.edu).

J Thorac Cardiovasc Surg 2011;142:961-6
0022-5223/\$36.00

Copyright © 2011 by The American Association for Thoracic Surgery
doi:10.1016/j.jtcvs.2011.07.062

looking around the table at cardiac surgery conferences and thinking how fortunate I was to be sitting in the company of such an amazing collection of surgical talent. Had I left Stanford the perfect student, which was of course impossible, it would have been with the curiosity, drive, and technical acumen of Craig Miller, the intellect of Stuart Jamieson, the integrity and surgical elegance of Scott Mitchell, and the clinical and patient care skills of James Mark. Craig Miller, in particular, could be a demanding coach and believed in tough love, so you can imagine both my surprise and delight when about 6 months ago he “friend requested” me on Facebook.

There is not much that I could add to what has been said about Dr Shumway, except like my own dad he is with me every day. Ronald Reagan was known to say, “There’s no limit to what you can accomplish if you don’t mind who gets the credit.” Dr Shumway was the epitome of this philosophy. The so-called “Shumway Society” consists of the 70 or so cardiothoracic surgeons who were lucky enough to train at Stanford during the Shumway era. I’m told he picked each one of them because he saw something in them that he liked, whether it was technical skill or creativity, their work or scientific ethic, or a willingness to take risks. I’m reasonably certain that he let me into his program because he liked my jokes.

If there is a more talented surgeon in the world than Vaughn Starnes, I have not met him. I will always be grateful to Vaughn for trusting in me the unique opportunity to join him over 18 years ago in creating a new university cardiothoracic surgical program at the University of Southern California (USC). With this came the privilege of contributing to the careers of medical students and residents and the ability to work across subspecialty barriers. I am also indebted to my partners and staff at USC and Huntington Hospital. They are the people who make me look forward to going to work in the morning, and once again I find myself sitting at the conference table marveling at the talent and support that surrounds me.

The Wildflower Century is a bicycle ride held annually in the hills surrounding San Luis Obispo near the central coast of California. So-called “Centuries” are 1-day 100-mile bike rides, usually organized by bike clubs or charitable organizations. For amateur cyclists, they are considered a rite of passage from the occasional to the serious bike rider. They vary in degrees of difficulty depending on their length in miles and degrees of climbing, measured in vertical feet. Some Centuries have daunting names like Breathless Agony or California Death Ride, usually denoting longer distances or big climbs. The Wildflower, at 107 miles and 6800 feet of climbing, takes place at the height of the spring bloom.

Now I promise not to get too carried away with this analogy, but just as what we do takes a lot more than just being good in the operating room, the long distance bike culture is

FIGURE 1. The Wildflower Century: elevation profile.

dependent on a lot more than just turning the pedals and steering the bike. It is about preparation, discipline, and the ability to perform over the long haul. You learn about the science of physical performance, including when to expend or conserve energy. You realize the benefits of working as a team to pace yourself and work more efficiently against resistance, and the key to seemingly insurmountable climbs is slow and steady progress. The vertical gain chart from the Wildflower (Figure 1) could easily be a graphic denoting the fate of an industry, the earnings of a corporation, or the productivity of a career. It shows the inevitable ups and downs associated with changes of terrain and climate, the threat of competition, or the challenge of being rendered useless by new technology or a new relationship. It could portray both the past and the future. What you really hope for, despite the inevitable ups and downs, is a future that leads to progress.

In their book *The Three Laws of Performance*, Steve Zafron and David Logan⁴ describe how we are all at risk for achieving what they refer to as our “default future,” the future that is already written for us unless we take dramatic steps to change. The default future is what happens when you lose track of the progress or competition around you or when you try to ride out a good thing. They go on to say that confronting our default future means understanding and changing not only how we perceive ourselves and our personal circumstances but also how we occur to others. This issue of perception can be tricky. For example, last week my 18-year-old daughter, Mallory, was driving me home in her car, which I had purchased almost new less than 3 years ago. Looking at her car’s odometer, I exclaimed to her that it read more than 56,000 miles. She calmly responded, “Is that how many I’ve used, or how many I have left?” Clearly, we were “occurring” to each other differently. The point is that, to succeed in the future, we must consider how we are viewed by our communities, our medical colleagues, our administrators, our own teams, and

others who want to share in our success. Sometimes that means having to face the fact that it is not just all about us. This new sense of perception requires that we see ourselves and others in a different light, a light that asks, "Are we part of the solution, or part of the problem?" If we are part of the problem, what skills must we acquire to become part of the solution?

Now as I attend our national meetings, as I look around this room, I see excellent surgeons who are also visionary leaders, sophisticated educators, accomplished lobbyists, brilliant scientists, statisticians, economists, and more, and that proposed the following question: As practicing cardiac and thoracic and congenital heart surgeons, what combination of skills, both surgical and nonsurgical, will spell success for us? I would propose that it comes down to evaluating ourselves on a daily basis according to the following 4 criteria: Will we be leaders who envision where our specialty needs to go? Will we manage and teach our teams to get there? Will we be the experts in the treatment of cardiovascular and thoracic disease? Will we do so by behaving as professionals? Now I realize that I have cast a wide net here and that the science of each of these subjects could easily be the sole topic of an address of this nature. However, it is the combination and balance of these skills that will allow us not only to face our challenges but also to envision and accomplish what is possible.

In their book, *Leaders Who Make a Difference*, Nanus and Dobbs⁵ discuss that whereas no leader's definition of leadership is the same, there are certain themes that recur: purpose, hope, inspiration, influence, marshaling resources, and effecting change. Napoleon Bonaparte said, "A leader is a dealer in hope." Nanus and Dobbs⁵ say, "Leaders are all about the future: securing new resources, developing new capacities, positioning the organization to take advantage of emerging opportunities, and adapting to change."

At present, many among us are still under the impression that the term leadership should be equated with "being in charge." This is synonymous with the traditional military approach, which acknowledged 3 types of leaders: authoritarian, democratic, or delegative. In other words, you're in charge, we're in charge, or they're in charge. When it comes to effective leadership, the exact opposite is probably true. In fact, I have now come to realize that if we have to resort to being in charge, it is usually not because we are leaders, but because we have already failed as leaders.

As a science, leadership is a skill that has sometimes eluded us. In a recent survey of academic cardiothoracic surgeons who are chairs of their departments or divisions, 74% responded that they had received no formal training in either leadership or management before assuming their leadership and management positions.* Now it makes sense

* Wood DE, Cohen RG. Leadership training and clinical activity of senior cardiothoracic surgery leaders. Submitted for publication, 2011.

TSDA: Six Core Competencies

- Patient Care
- Medical Knowledge
- Practice Base Learning
- Professionalism
- Interpersonal Relationships and Communication Skills
- Systems Based Practice

FIGURE 2. The 6 core competencies of thoracic surgical education.

that most of them are probably natural leaders, but 60% not only wished that they had formal leadership and management training but also believed that it should have been a prerequisite to assuming their leadership positions. Interestingly, 22% of our leaders have been told they should seek formal leadership training, and almost half have gone on to either a formal degree or some sort of seminar aimed at giving them leadership and management skills. In my mind, this training is essential. Our mentors must not only exemplify leadership but also teach it to their faculty, their residents, and their students.

These are the 6 core competencies used to train and evaluate thoracic surgical residents (Figure 2). Although they are occasionally inferred, leadership skills are not currently part of the thoracic surgical training curriculum. Whereas all of our leaders agreed that leadership and management skills should be part of the thoracic surgical training curriculum, only 37% have actually implemented them. Forty-three percent wanted to but did not have the resources, and 20% replied that they were important but could be learned elsewhere. At a time when the health care environment demands that we expand our roles as surgeons both in and beyond our operating rooms, we cannot get by with just our emotional intelligence to guide us. We need to be formally prepared as leaders. Regardless of your title, the size of your hospital, or the nature of your practice, the definitions of leadership not only apply to you but also will allow you to accomplish more with your surgical teams, service lines, your committees, and your careers.

The concept of management is frequently included under the same umbrella as leadership, but it is truly a subject of its own. Whereas leadership is the intention and vision of getting to the next level, management is the process of executing the plan. We frequently refer to patient care or patient management as something that we do directly as physicians. The reality is that for the most part, patient care management is something that we as surgeons manage others to do. This is particularly important as we increase

our dependence on nurses, physician assistants, intensivists, and hospitalists when it comes to patient care. Last January, The Society of Thoracic Surgeons unveiled its online public reporting system for coronary artery bypass surgery outcomes according to surgical groups and hospitals. The top surgical groups were awarded the designation of 3 stars, and substandard groups were given 1 star. Does this mean that the groups awarded 3 stars were better surgeons? No, it means that those groups have implemented better group and hospital management strategies for the surgical treatment of coronary disease, that they are managing more effective and efficient health care systems, and that the result is they will survive the future. The point is that skills like team building, dealing with conflict, self-assessment, and attentiveness to employee satisfaction can no longer elude our radar. They are, in fact, among the keys to our success as surgeons.

Let me offer an example from our own history that exemplifies the importance of these concepts. In the early 1990s, technology was introduced that had the potential to allow heart surgeons to work through alternative or “port access” incisions. It was the beginning of what we would call minimally invasive cardiac surgery, and like me, many of you were involved in its infancy. The potential implications were far reaching. The manufacturers of the equipment required to perform these operations offered courses designed to facilitate implementation of the new technology, and over 100 surgical teams from across the globe signed up. Given the sophistication expected from these surgical teams, the company estimated that once returning home, it would take approximately 8 operations before they were able to perform these procedures in the same time that a conventional operation could be performed. They eventually realized that 30 to 40 operations was a more realistic number, but attrition was high and only a handful of surgical teams (and mine was not one of them) successfully reached that number. When asked why they did not persist, surgeons complained that the technology was not there yet, that it was too much work, and that they did not have the time. Most of the surgical teams were equally discouraged. For example, after seeing a minimally invasive cardiac case on the operating schedule, one surgical nurse said, and I quote, “Give me a fresh blade so I can just slit my wrists right now.”

An analysis of the failure of this original attempt at minimally invasive cardiac surgery was published in 2003: not in our professional literature, but in *California Management Review*, the publication of the Haas School of Business at the University of California at Berkeley.⁶ The results implied that it was not our surgical skill that let us down. What mattered was how the surgeon-leader framed the technology and the implementation process and how that affected the rest of the team. The successful surgeon-leaders chose and empowered their teams by justifying the change, aligning the goals, and encouraging

Successful Surgical Leadership

- **Project Purpose:**
Aspirational vs. ~~Defensive~~
- **Surgeon's Stance:**
Interdependent Team Leader vs. ~~Individual Expert~~
- **Team's Role:**
Empowered Team vs. ~~Skilled Support Staff~~

FIGURE 3. Surgeon attributes for successful implementation of new technology.

communication and input from team members. This was done both before cases and during debriefing sessions. Surgeons who failed were those who hung on to the “captain of the ship” model, in which team members were handed the technology but had little or no opportunity to provide input. When it was over, 3 themes emerged regarding a surgeon's ability to move his team into the future (Figure 3): When it came to project purpose, the surgeon had to be aspirational and not defensive. Second, the surgeon's stance had to be one of an interdependent team leader as opposed to an individual expert. Finally, the surgeon-leader had to empower the team rather than merely consider them as skilled support staff. The captain of the ship model, in which team members are given their orders but believe that they have little or no opportunity to provide input, is our default future. To avoid it, we must embrace, master, and teach the modern principles of leadership and management, or else, in the words of our nurses, “just give us a fresh blade so we can slit our wrists right now.”

So what about expertise? Whereas the 10,000-hour rule has become the catchphrase of Malcolm Gladwell's “Outliers: The Story of Success,”⁷ and most of us have easily put in our 10,000 hours, it was his equation, Achievement = Talent + Preparation, that captured my interest. A certain amount of aptitude is undeniably necessary for any technical or artistic profession. However, it is the preparation that makes us experts, and in our case it is knowledge, practice, and judgment that make or break us. In fact, manual dexterity, and few of us have the hands of a sleight-of-hand magician or an accomplished musician, has failed to correlate with surgical ability in most studies. Visuospatial dexterity, the ability to mentally manipulate and rotate complex 3-dimensional objects, correlates with efficiency of hand motion in surgical novices. However, although there is a variable learning curve from student to student, visuospatial dexterity can be taught and learned.⁸ The result is that surgical skill is related less to complex spatial abilities or manual skills than to repeated practice under careful supervision. In other words, once you learn the surgical moves, it is all about judgment and experience.

Given the importance of the maturity and judgment that come with years of personal experience, not many of us would confer the title of “expert” to a new graduate of even one of our finest training programs. Yet that is what our referring physicians, our payers, and especially our patients expect of all of us. We must become experts, and we must remain experts throughout our careers. When it comes to knowledge and judgment and surgical technique, we have to be the resources for topics like cardiovascular disease, thoracic oncology, and esophageal physiology. It is a dangerous thing when referring physicians order up operations as if they know more about surgery and its indications than we do. It is our job to be more current and to know more about our specialty than anyone else. Furthermore, we must lead and manage and educate our teams to provide expert care, which as we all know is also cost-effective care.

The issue of achieving and maintaining expertise becomes particularly challenging as we strive to innovate within our specialty. As with any industry, failure to successfully develop and offer new products and services to our customers is a quick and sure path to obsolescence. As we have learned the hard way, if we don’t do it, someone else will. As I look at our history of cardiothoracic surgical innovation over the years, it is clear that each time we embark on changing our surgical approach or trying something new, we at least temporarily sacrifice our status as experts. The result is an unavoidable learning curve with the potential to be dangerous to patients. Not only do we temporarily lose our expertise as surgeons but our teams also lose their edge as they too have to become familiar with new equipment and new routines.

How do we create an environment that allows for both progress and patient safety? I sometimes grow weary of the analogies that have been made between pilots and surgeons and between the airline industry and the surgical environment. Still, one cannot disregard the remarkable safety record of the airline industry and the tools they have developed to minimize disastrous complications. My guess is that when you flew to Colorado this week, most of you were not overly preoccupied by whether or not you would survive the trip. In fact, when airline passengers are polled, most are much more concerned about scheduling and flight delays, leg room, the cost of baggage, and the fact that there are no longer free peanuts. When it comes to safe technology, that is a remarkable feat.

Tools like checklists and simulation have made the airline industry safe, and they serve as excellent examples of how we must innovate as surgeons, yet remain experts in the safest way possible. Surgical simulators for the purpose of honing existing skills or learning new ones need to be developed and become available not only to residents in training but also to practicing surgeons so that we can safely treat every patient. When making decisions about

new surgical approaches, we are frequently asked by our patients and their families, “What would you do if I were your family member?” Or even more poignantly, “What would you do if you were me?” One of the differences between pilots and surgeons is that pilots have an even more personal interest in seeing their plane land safely—they are on it. So I would ask you this: If your operating room was a 4-hour flight about to take off when you ask for your first instrument, would you board that flight? If not, you are unprepared and have let your patient down as an expert.

Finally, the skill set of the thoracic surgeon requires that we act like professionals. If you develop an awareness of the arts of leadership, management, and expertise, it will be difficult not to be viewed as a professional by your colleagues. Last year, Scott Millikan⁹ spoke of professionalism in patient care and struck a note with all of us when he said, “Hope is the currency of the waiting room.” Our colleagues and staff, our residents and students, deserve a similar respect. There is a Japanese proverb that says, “The reputation of a thousand years may be determined by the conduct of one hour.”¹⁰ If so, I sometimes worry that we have squandered an eternity with words spoken out of anger or frustration to those who are the most committed to us and who want more than anything for us to succeed. Certainly, it is up to us to return the favor.

So, is this surgical superman possible? Well, it is a concept that I have not personally mastered, and progress comes slowly. However, we must recognize its value and realize its potential because the default button, to isolate ourselves as surgical specialists, has long been obsolete and will certainly not carry us into the future.

I have always considered myself an extremely lucky person, and today is no exception. Like so many of you, that good fortune lies in my family and dear friends. Although I have never scored a goal in an important soccer game or shut down an advancing striker as time ran out, I have stood on the sidelines and watched my daughter Whitney do it lots of times, and that’s been even better. Whitney’s an excellent athlete, a math whiz, a country music fan, and the best pal that anyone could ever hope to have.

Although I dreamed of it when I was younger, I have never performed in a major concert hall or with an important symphony orchestra. But I have stood backstage or sat in the audience while my daughter Mallory has done it lots of times, and that has been even better. Mallory is a talented musician, an excellent writer, a voracious student, and I am going to dearly miss the sounds of opera emanating from her shower after she leaves to attend Oberlin College in the fall.

Shannon and I celebrated our 25th wedding anniversary this week, and as in so many previous years, we did it with friends at the Western. Shannon is a passionate gardener and is happiest when she is traveling. She is a tenacious

and loving mother and has been at my side, through thick and thin, for over 30 years. How could I be luckier than that?

As you rejoin you families to enjoy our meeting in this fabulous setting, as you return home to resume your lives and careers as leaders and experts and professionals, I wish you all the luck that I have had. Thank you.

References

1. Baumgartner WA. Reassessing our core values. *Ann Thorac Surg*. 2000;69:321-5.
2. Collins JC, Porras JI. More than profits. In: Collins JC, Porras JI, eds. *Built to last*. New York: HarperBusiness Essentials; 1994:73.
3. Collins JC, Porras JI. Buiding your company's vision. *Harvard Business Rev*. September 1996;1:65-77.
4. Zaffron S, Logan D. Introduction: the power of rewriting the future. In: Zaffron S, Logan D, eds. *The three laws of performance*. San Francisco: Jossey-Bass; 2009:xxix-xxxv.
5. Nanus B, Dobbs SM. The leadership challenge. In: Nanus G, Dobbs SM, eds. *Leaders who make a difference*. San Francisco: Jossey-Bass; 1999:6-8.
6. Edmondson AC. Framing for learning: lessons in successful technology implementation. *California Management Review*. 2003;45:34-54.
7. Gladwell M. The 10,000 hour rule. In: *Outliers: The story of success*. New York: Little Brown; 2008:35-68.
8. Norman G, Eva K, Brooks L, Hamstra S. Expertise in medicine and surgery. In: Ericsson KA, Charness N, Feltovich PJ, Hoffman RR, eds. *The Cambridge handbook of expertise and expert performance*. Cambridge: Cambridge University Press; 2006:339-353.
9. Millikan JS. Bigger. *J Thorac Cardiovasc Surg*. 2011;141:311-7.
10. Japanese proverb. Available at: <http://www.quote garden.com/integrity.html>. Accessed June 2011.