Leadership, Professional Heroism, and the Eastern Association for the Surgery of Trauma: Presidential Speech at the 14th Scientific Assembly

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I feel privileged to have been selected as your President at this juncture—the much-touted "Y2K." Of course, all of the hyperbole associated with the inception of a new millennium has subsided, and despite predictions, we have not escaped the reality of our current existence. We have had no cosmic convergence, and the laws of physics have not been altered in any discernible way. Sir Isaac Newton's *Philosophie Naturalis Principia Mathematica*,[1] first published in 1687, still holds conceptual truth for us as we meet today in Florida. Unfortunately, the scientists and prophets of Newton's era were regarded with skepticism. Galileo, a Newton predecessor, was prosecuted by the Church for his 1632 work, *Dialogue on the Two Chief Systems of the World*.[2] Thankfully, in our more enlightened times, our leaders are not subject to the same scrutiny.

Today my task is to capture the elusive, intangible qualities of our organization that have contributed to its success. I propose that we have professional heroes among us today, and they have altered the culture of our organization in a positive manner. I want to identify some of those who have contributed to the success of our organization by their heroic service. Furthermore, I want to suggest how the Eastern Association for the Surgery of Trauma (EAST) may take advantage of existing opportunities for continued service to its youngest members in the future.

To begin, though, I need to define the concepts of heroism, professionalism, and leadership. I am learning these various elements of leadership in an attempt to apply them to my own daily life. It has been a fascinating personal quest. Textbook definitions of "hero," "leader," and "profession" all suggest elements that are helpful in understanding the concept.

The *Oxford Encyclopedic English Dictionary* suggests that a hero is "a person noted or admired for courage and outstanding achievements." *Webster's Third New International Dictionary* describes hero as a "mythological or legendary figure endowed with great strength, courage, or ability, favored by the gods and often believed to be of divine or partly divine descent."

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Roget's International Thesaurus associates the word "leadership" with the following terms: prestige, esteem, repute, personality, charisma, magnetism, charm, and enchantment. *Webster's Third New International Dictionary* describes a leader to be a person "who by force of example, talents, or qualities of leadership plays a directing role, wields commanding influence, or has a following in any sphere of activity or thought."

In defining the term "profession" the *Oxford English Dictionary* indicates that it is "the occupation which one professes to be skilled in and to follow . . . a vocation . . . being altruistic and value laden." This dictionary further notes that a profession is "now usually applied to an occupation considered to be socially superior to a trade or handicraft, but formerly, and still in vulgar (or humorous) use, to

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other lines of work." Having read this last definition, my opinion it that it appears to include politics, acting, and, of course, the so-called "oldest profession."

It is clear that in our greater society, these terms may not be well understood, and sometimes they are used rather flippantly. Many may recall last year, the television series, "Survivor," which was avidly watched and followed by much of the nation. In its denouement, a 39-year-old corporate trainer was declared the "hero" survivor and, for his efforts, he won a million dollars. He was the darling of talk shows everywhere. Witness, too, the last presidential election with its cliff-hanging duel to the end, recounts and all.

There is a rather important dimension of leadership that I want to suggest and explore with you. It is lurking just beneath the surface, devoid of hyperbole. In his book, *Lives of Moral Leadership*, Daniel Coles talks about leaders who do not look as if they are up to the job. They are "individuals who are trying hard to 'do the right' . . . and to prove themselves worthy of their 'situation.'"[3] Many of these individuals are so modest and unassuming they are entirely overlooked in day-to-day interaction, but, in their absence, they are usually found to be indispensable.

That which may be obvious may not be as important as that which is elusive and difficult to define. There are examples of this phenomenon in nature. In quantum physics, there is a quest to find the elusive "glueball." These subatomic particles act within the nucleus of atoms to bind together charged particles, which would otherwise repel each other. Isolation of individual particles is impossible, since the act of identification causes the particles to transform instantly into other particles and energies. The "particles predicted by the theory of quantum chromodynamics help explain why the fundamental building blocks of matter are impossible to isolate."[4]

This analogy from quantum physics speaks to complex organizations such as ours. There are many "glueballs" present in this room. Attempts to identify these individuals would be challenging. They serve to hold our association together and assert great influence at close quarters. One can infer their presence by the by-products of their work. Without them, our organization could not exist in its current form today.

In my professional life, I have been fortunate in my ability to identify the ephemeral vapor trails of individuals performing at a heroic level. In September 1999, the eastern region of North Carolina sustained a disaster of historic magnitude. We survived hurricane Floyd—our so-called "Storm of the Century." In fact, it was the worst flood in five centuries. At least 30,000 homes were flooded and about 50 people lost their lives. The national media carried graphic photographs of inundated hog and poultry farms. We had much to learn from this experience.

Interspersed with the misery and human suffering, there were true triumphs. One of the triumphs that led to the continued functioning of our Level I trauma center was the ingenuity displayed by the members of our hospital engineering team, none of whom wanted to be recognized in any way. Our Level I trauma center was severely threatened, not by wind or rain, but by a lack of water. One of the lessons brought home to us was the fact that a major health facility cannot function without this resource. During the aftermath of the storm, the hospital soon found that without running water, there could be no service. A group of "modest" individuals in the engineering department maintained our capability to deal with injury and disease by arranging to pressurize the water system at a rate of approximately 270 gallons/min from our 80,000-gallon rehabilitation swimming pool. This was a process that went on for days. This feat of clearly heroic proportions that was made real by a group of regular heroes enabled our trauma center to remain functional.

Those plumbers, electricians, housekeeping personnel, and volunteer fire truck operators were providing a heroic service to our region by their innovation and dedication to the task at hand. Those individuals displayed some of the qualities that I will attempt to bring into sharp focus for you today: teamwork, dedication, selflessness, creativity, and an indefatigable passion for the mission at hand.

There are other stories, which can help define the concept of leadership and professional heroism. Much was chronicled in this past year, as the catalogue of activities for the last century was created. As a footnote for this audience, but a defining moment for enthusiasts all over the world, it was considered historic when Formula I racing returned to the United States on Sunday, September 24, 2000, at 1300 hours in Indianapolis, IN. To those of us who are automobile enthusiasts, Formula I racing represents the epitome of human endeavor in the arena of motor sport. Cars are operated by 800-horsepower motors, which revolve at up to 19,000 rpm. It is awesome and captivating to experience the controlled fury of these highly developed devices involved in competition. Our contemporary world champion in Grand Prix racing is William Schumacher from Germany. He has shown all the qualities depicted by champions in this sport, including the late Brazilian, Aryton Senna, who was considered by some to be the best driver of all time. Both are noted for their arrogance, on and off the track. This arrogance is a quality that I was told by one professor in Jamaica to be essential to producing good doctors!

One sports figure who quickly comes to mind when the word "greatest" is mentioned is Muhammad Ali. In fact, Muhammad Ali was featured on the cover of *Newsweek* as one of America's greatest. In 1974, Muhammad Ali regained the heavyweight title that was taken from him 7 years earlier, when he refused to register for the U.S. military draft. For some, the draft refusal removed Muhammad Ali forever from their personal list of potential heroes. No one can credibly argue, however, that he has not assumed a new role as a political and cultural icon and that he has not been steadfast and consistent in the way he has imparted his thoughts and

beliefs throughout the decades. Michael Jordan has also been considered a sporting hero, notable in contrast to many in basketball for his off-court charm.

Our last Olympics served to provide ample examples of individuals who by their accomplishments could be considered heroes, and I hasten to say that not all are men. Marion Jones is a 25-year-old North Carolina resident and former college basketball star at the University of North Carolina at Chapel Hill. She clearly captured the imagination of the nation as she won gold medals at the Sydney 2000 Olympics. She was one medal short of being the first to win five track gold medals. Another Olympian from Afton, Wyoming, Rulon Gardner, defeated the long-time Russian world wrestling champion, Alexandre Kareline, who had never lost an international match.

There are other sport figures and prominent names from which to choose, Tiger Woods, perhaps, or Colin Powell, Gulf War veteran, who I am proud to say, is of Jamaican heritage. What is remarkable is that in this past year, when every human endeavor over the last 100-year period has been catalogued, sports figures have ranked as our "greatest" heroes in practically every category.

To continue the automotive sporting analogy, more poignant and perhaps a little more relevant, is to consider this story. Steve Tompson, an *Autoweek* writer, was prompted to write an article devoted to what the word "heroic" meant to him after a friend described a Formula I passing maneuver as "heroic." He related that the word seems to be used fairly frequently these days in reference to "movie stars, musicians, basketball players, dot-com billionaires, and racecar drivers who are called this, mostly by doing better than their competitors."[5] He relates heroism to a mix of bravery, success, role modeling, and charisma. He tells a story of someone he calls a "true" hero, a Korean War Marine veteran. He was "wounded in the undeclared Korean War, and decided, while he was recovering that the really important struggle he had been saved from death to pursue, was public high school education, where the enemy was even more destructive than the Chinese human wave assaults he had helped repel. The enemy of ignorance, he decided, was worth whatever it might take to defeat."[5]

Thompson said, "When you know the sacrifices made by that kind of hero in passing on the torch of knowledge to untold numbers of young minds, a successful pass on the racetrack is hard to see as 'heroic.'"[5] This story brought the message home to me, particularly since, in the history of our profession, many of our soldier-doctors have been involved in human conflict identical to the subject of the *Autoweek* article and have been as selfless later in the subsequent education of others.

Over the years of working with colleagues in the civilian counterpart of the specialty of trauma, I have witnessed a high level of heroism: a selfless dedication to patients, many of whom are unable to fend for themselves; a personal quest for knowledge; and a compassionate service to countless residents and fellows as mentors and teachers. These individuals have accomplished inestimable good, generation by generation. It is nearly impossible for some heroes, however, to function in the limelight of fame.

One of my objectives today was to illuminate the elusive, intangible nature of our organization, a factor that has contributed to its success. I want to begin by shining light on those who have preceded me in this office. The founding members and most, if not all, of the charter members of EAST have all assumed presidential status in our organization and have now become senior members. There is much to learn from them in terms of perspective and wisdom. Because we are a perpetually growing organization, many of our younger members may be unaware of the accomplishments of these now "elder statesmen." Lest we forget, however, these individuals sacrificed, and on the basis of personal conviction alone, provided the impetus for our organization to become a viable entity for the support and education of younger trauma surgeons. I consider them to be true heroes, and I have attempted to learn from their experiences. One aspect that is clear to me is that these individuals themselves have benefited from the influence of others.

In preparation for this address, these members were asked to indicate the mentoring influences that contributed to their personal success. Each of the past presidents of the Association shared his thoughts with some candor. It was interesting to me how many of the strongest positive role models were family members. Others who influenced our members did so by their personal qualities alone. It would seem that the answers would have been a lot different, particularly since we are scientists and our profession is weighted heavily toward hard, technical data.

Here are some of the things that I learned from those who were mentored, and who are now our mentors. Dr. Kimball I. Maull, our first president (who served two terms for the sake of continuity), was inspired the most by a member of his family. He has been driven by the passion to "do the right thing."[6] Through his influence, trauma surgeons have recognized that "trauma is no accident."[6] Apart from his unwavering dedication to the Association, he defined the approach to trauma care that disease is potentially preventable in all its forms, and our profession should approach disease as one continuum of causality, presentation, management, and return to activity.[6]

Dr. Burton Harris declared in the opening statements of his presidential speech that "no one gets anywhere alone."[7] He has valued the influence and inspiration of at least three professionals and one close family member. He stated clearly to me that "those who have torches must pass them on to others."

Dr. Lenworth Jacobs comes from a family of humanitarian physicians. It would have been difficult for him to have chosen a different path for his life. He admits the strong family influence, but adds that at least two other professionals have pointed the way for him and provided him with oppor-

tunity. He has recognized the importance of assessing the environment in which we operate as professionals and developing educational programs for our young surgeons on the basis of this assessment.[8]

Our fifth president was Dr. Howard Champion, who along with the other founders, was inspired by several professionals. After dedicating most of his energies to the creation of several important initiatives for successful trauma care nationally and internationally, he now successfully balances his professional life with the needs of his young family. In his presidential speech he said, "We in these middle years have to be the advocacy group so that the younger surgeons, who now do the job better than we do, can thrive in the future."[9] He admits that his children "do not read the papers," and he has adapted his own value system accordingly.

Dr. C. William Schwab has been the champion for organizational work at the national level. His major energies have been directed at mitigating the trauma-related violence that results from handgun injuries. No doubt, the recently chronicled reduction in gun-related trauma can be credited, in some part, to his activity. We should note that EAST continues to invest in this area of concern. Dr. Schwab shared that he had both personal and professional mentors from whom he has drawn inspiration and strength. He learned to "do the right thing" and to expose himself to candid scientific criticism. He also learned that the culture of our organization allowed family life and a scientific program to coincide. Through the influence of those before him, he has dedicated himself to mentoring the young surgeon.[10]

Dr. Michael Rhodes recognized the importance of incorporating a scientific methodology in assessing information; his work advanced our clinical guidelines. Because of his influence, we have the current, now familiar EAST Practice Management Guidelines for Trauma Care.[11]

Dr. Carl Boyd admitted to having been influenced by his colleagues at EAST, at least one other professional, and a member of his family. In his presidential message, he exhorted the membership to be steadfast in the face of threats from the "managed care industry." He affirmed that the "physician is the timeless principal in these changing times."[12]

Dr. James M. Hassett, in his presidential speech, shared a vision of EAST. He recognized that we were "standing on the threshold of a new century."[13] He spoke of five themes, which are durable in their wisdom[13]:

- We must realize that the whole is greater than the sum of the parts.
- We must accept that a trauma system is not a bureaucratic place, but a people place.
- We must insist that trauma will remain strong only to the degree that it will commit to excellence and equity for all.
- Trauma surgeons must relate their research to the urgent social problems in trauma care.
- The trauma system must reaffirm the essentialness of service.

Dr. William F. Fallon was influenced by one primary individual who, though no longer among us, continues to provide inspiration for him to this day. The organization itself seems to have also contributed to Dr. Fallon's career and success. He acknowledged the important role the military has had in the training of trauma surgeons throughout the history of our profession and our nation. With his presidency, the Military Medicine Committee was established.[14]

In his presidency, Dr. John A. Morris suggested that EAST adopt a computer-based technology to facilitate learning and the sharing of information. In his presidential address, he said that EAST's "mission was to identify and nurture the young traumatologist and to provide that individual with the opportunity for academic advancement. The EAST of the next millennium will be different still. The new EAST will reside on the internet."[15]

Apart from EAST itself, Dr. Fabian, the 1999 president, identified at least three professionals who have had a profound effect on his career. He has valued his relationship with our young and vibrant organization immensely. His presidential address emphasized the importance of using scientific evidence to guide care.[16]

Our last president, Dr. David Reath, is a plastic surgeon and the first subspecialist to be a president. He wondered why he was chosen to his "calling."[17] The influences that have affected him profoundly are drawn from his historical peers, his current family, and this organization.

The sum of all of these individual visions is what we have today in EAST. Our past leaders have planned skillfully and acted with prudent wisdom. Much of the success that we are experiencing today in our organization's activities was predicated on a sound, strategic planning process, incorporating the needs and the visions of the membership. This has been accomplished primarily by a series of strategic planning retreats.

The earliest EAST strategic planning retreat was conducted in November 1994, and facilitated by Dr. C. William Schwab. The recorder was Dr James Hassett. At that meeting there were three organizational groups, each charged with specific responsibilities. Dr. Lenworth Jacobs was in charge of organizational structure. Dr. Kim Maull was responsible for growth issues. Dr. Charles Aprahamian took care of finances. The direction that was gained from this activity has proven to be durable, and has acted to refine the current focus of the organization in a profound manner. The second retreat was in April 1999, and the facilitator was Dr. John Morris. At this retreat, there was clear recognition of the role that technology would play in the future development of EAST.

The third and most recent Strategic Planning Retreat was held in May 2000, at the Westin Innisbrook Resort, Tarpons Springs, Florida. The group present was ably facilitated by Dr. James Bearden, Professor of Business, and Dr. Maria Clay, Director of Clinical Skills Assessment and Educational

Skills in Family Medicine. Both were from East Carolina University. Composure was maintained even after a bomb threat closed the meeting prematurely on the last day of deliberations!

The questions that needed to be answered were as follows: "How will EAST differ during the next 5 or 10 years from its current state?" "What are the key challenges that the leaders of the organization will face?" "What should the organization prepare to do to support these challenges?" Although we were not able answer all of these questions with "crystal ball" clarity, one of the central themes that developed was the need for a foundation that could dedicate its energies to support the activities of EAST.

This concept has many attractive features. It will provide an opportunity for the senior members to contribute in a meaningful manner. It would support mentoring and leadership development for the benefit of the young members of EAST. It would also provide a method by which EAST could support research, education, and community benefit and prevention initiatives and positively impact the improvement of trauma care.

As you know, our organization has already embarked on the work that came from this last strategic planning session. What may not be as evident, however, is how strongly the organization has reaffirmed its mission to provide leadership and development for the benefit of young surgeons in the field of trauma. This paradigm would seem relatively easy to make a reality. There are complexities, however, derived from the reality that we are an international workplace and world, created by modern communication technology.

There are some very practical reasons that come to mind as to why we need to support our young colleagues. Simple truths still exist. For example, if an individual is going to have a competitive job, that person will need a good fellowship. Dr. Kirby Bland reminded us of this fact in a recent *Bulletin of the American College of Surgeons*: "The evolution of residency training was based upon apprenticeship in an established institution in the company of surgical scholars, which guaranteed excellence in postgraduate training. Clinical fellowships began as an apprenticeship or preceptor system such as that provided by Sir John Hunter (1728–1793) to young eligible surgeons of Great Britain. . . . the modern residency program in North America was pioneered at Johns Hopkins University under the leadership of William S. Haldsted (1852–1922)."[18]

Wiley W. Souba, writing in the *Journal of Surgical Research,* notes, "Two principal factors are responsible for the development of fellowship training. The increased complexity of surgical practice with which the postgraduate surgical trainee is expected to have special skills and competencies, and the enhanced career opportunities and professional prestige following completion of fellowship training."[19] He goes on to say that "The mentoring system that has evolved in academic medicine is ensconced in surgical disciplines, due to the complexity of surgical practice, and the demand for proficiency of knowledge in molecular medicine and technological innovation."[19] He also points out that for a number of specialties, including trauma, this culture of fellowships plays a significant role in the retention or teaching of surgeons in university programs.

Until recently, the great concentration of experience in trauma has been at university programs, which for the most part are located in urban centers and have well-established fellowships. It is still not clear, however, if there is an effective mechanism by which this concentrated experience can be generalized to the rural environment and even to the nonacademic setting. Dr. Wiley Souba also noted that "the nurturing and development of leadership talent in academic surgical departments have not been a high enough priority."[19] William Silen, Dean for Faculty Development and Diversity at Harvard, believes that "many careers have floundered and even failed because people have not had adequate mentoring."[20] This sort of failure in our cadre of precious trauma recruits would reflect badly on an organization such as EAST that has pledged to support those few individuals who have chosen to make trauma their career.

Although most would agree that the mentoring relationship most favors the fellow or "mentee," there are many ways that the mentor also benefits. Fellows can help mentors establish a legacy and assist mentors in molding successors. A fellow can help extend the mentor's intellectual contributions and reinforce the mentor's professional identity. Fellows can bring refreshing personal knowledge and provide satisfaction and achievement in the completion of mutual projects. Fellows can introduce you to new things like computers, the Internet, and beyond. There may really be no "complete mentor," but one may be served to good effect by a series of "partial mentors" over the critical years of a developing professional career.

My grandfather served the purpose of a mentor admirably, although he was not a physician. This need for mentoring is made even more relevant in our current milieu in which the medical profession as a whole exists. Scott D. Somers, PhD, Program Director for the Divisions of Pharmacology, Physiology, Biologic Chemistry, and Trauma and Burn Post Doctoral Institutions at the National Institute of General Medical Sciences in the National Institutes of Health, recently admitted in a conversation on October 5, 2000, that there was limited information as to the outcome of trauma fellowships nationally. To his knowledge, there is no information as to the specific number of trauma surgeons who have gone through a rigorous academic and research program and who have stayed in academic careers. I expected that if anyone had these data, he would, since he is the program administrator for 19 current institutional career training grants (T-32 grants) across the country in trauma and burn injury (see Appendix). All of these programs are based essentially in surgery departments (except for one in physiology), and all predominantly support 2 to 3 years of research training for surgical residents (probably about 80% of the trainees). When asked to hazard

a guess, he thought that 85% to 90% of fellows stay in academic careers. The National Institutes of Health has sponsored these career research grants for 25 years. On the basis of this history, I asked if there were any simple lessons to be learned from his experience, as to how to attract and retain young scientists as academicians. He commented that the most successful programs seem to exhibit a level of commitment to research that is obvious. For example, he witnessed that at some programs, interns began the process of choosing a suitable research project years in advance of their stint in the laboratory. Success was more predictable in programs that showed support for research endeavors and that were characterized by a more long-term outlook and departmental broad-based support. In a successful program, there was perhaps more of a sense of a generous, collaborative spirit. Evidence of this was given by the involvement of faculty from multiple disciplines.

George F. Sheldon, MD, Professor and Chairman of the Department of Surgery in Chapel Hill, North Carolina, and past president of the American College of Surgeons, has followed the trends in manpower needs for our nation for some time. In his Scudder Oration on Trauma in 1991, he quotes Schwartz, who predicted there would be as few as 585,000 physicians by the year 2000, with a demand for 592,000, or a deficit of 7,000.[21] This prediction appears to be appropriately accurate, on the basis of the anecdotal evidence that physicians and surgeons are retiring at a higher rate today than in prior decades.

Esposito et al. indicate that "it is likely that negative manpower balance already exists for the specialty of surgery. There are probably as many surgeons retiring or dying as there are entering the practice of general surgery annually. Moreover, not all general surgeons participate in Trauma care."[22] A survey of the Washington State Chapter of the American College of Surgeons elicited a response that 39% of the sample preferred not to treat trauma patients. Some of the reasons cited were urban practice, a negative impact on elective surgery, insufficient reimbursement, medicolegal risk, and acquired immunodeficiency syndrome.

It would seem, therefore, that there is ample opportunity for organizations such as EAST to help alter the impact of this negativity by helping to maintain a healthy culture and environment within the profession. Improving the relationship with the community at large will be a part of this process. Mechanic, in his article "Changing Medical Organization and the Erosion of Trust," indicates that there is a perceived "gulf between the medical profession and the society it serves. . . . The contract between society and the profession is being redefined. Both the public and the profession may at times be dissatisfied or disillusioned."[23] In a recent article, Souba writes: "A better informed community is asking for accountability, transparency, and sound professional standards. It appears therefore that there may be methods by which those who are fostered appropriately can avoid most major pitfalls and reach their maximum potential as professional surgeons. The good news is that we as physicians, have a choice. Unlike the forces governing the market place which are often out of our hands, the decision to practice the virtue-based, rather than solely market-based, medicine is our own."[24]

To be sure, we can all identify the elements that have been listed as contributing to the concept of heroism. Popular icons—figures from history and the political arena, sports stars, great minds, and martyrs of religion—display all or some of the heroic qualities. We have also recognized that sometimes the elements of leadership appear to be altered or distorted. Again, there are examples of this from history, where fame or notoriety may sometimes have been confused with heroism. King Shaka kaSenzangakhona, king of the Zulu (reign 1816–1828), created the Zulu kingdom in southern Africa by consolidating power. One of the reasons for his success is that he created a highly regimented society, with a well-organized system of informers: "Izangoma were diviners with mystic powers allowing them to 'smell out' practitioners of evil. Those who were identified as engaging in this crime were impaled with a short wooden stake, thrust into the rectum, and left to die in the bush. Such practices clearly impressed outsiders. However, the true discipline of Zulu society came from a culture in which laws of custom dictated behavior at every stage of personal development."[25] The preceding account speaks to the ruthlessness of this man and his system. The heroic component of Shaka's legacy relates more, however, to his personal traits: "Shaka'a legitimacy [as a leader] is understood to be founded, not on his birthright, but on his achievements, which, in turn depended on his army, which like his character was highly disciplined."[26] There are others from our history that come readily to mind—Atilla the Hun, for example.

We should, therefore, identify our role model mentor heroes with care. They are less likely to display common, destructive behaviors that will diminish the experience for even those with great motivation and high aspiration. Daniel Goleman, in his book dealing with emotional intelligence, gives examples of what he calls "creativity killers."[27] These behavioral characteristics include:

- Surveillance—hovering and constant scrutiny.
- Evaluation—a critical view that comes too soon or is too intense.
- Overcontrol—micromanaging every step.
- Relentless deadlines—a too-intense schedule that creates panic.

It appears that the most refreshing evolution in our thinking about leadership is the sense that the purposes of the overall group are best served when the leader helps followers to develop their own initiative and supports them in the use of their own skills. This attitude helps the followers to grow and become better contributors.

Not all members of the profession have taken this to heart, and there are still those whose behavior seems to alienate co-workers—for example, the physician who habit-

ually takes out his or her frustrations on others. The burgeoning technological environment that we live in has altered the scale of contact, influence, and exchange between individuals, communities, and organizations. This has expanded the need for cross-cultural sensitivity. I believe that EAST is prepared to take further advantage of this new technological environment, and through this process, continue to faithfully pursue its mission in new and exciting ways.

As an example of how the profession is changing, let me share my experience at East Carolina University. It has been fascinating, especially with the integration of robotic surgery in almost daily practice. Dr. W. Randolph Chitwood performed the first robotic mitral valve repair in the United States several months ago in Greenville, North Carolina. Our general surgeons have adopted the technology for many intra-abdominal procedures as well.

Synergistically, the institution has also developed the capability to monitor and potentially manage the victims of trauma from halfway around the world. This capacity to monitor an individual in Hawaii, while being in Greenville, was demonstrated several months ago in our telemedicine department.

There are clearly new horizons that are ahead, with the intriguing potential of integrating two or more technological advances into new and helpful applications that would potentially benefit our patients. Our organization will continue to lead in this sort of innovative and creative activity.

Already, it has been noted that "when predicting outcome for patients in intensive care units, artificial neural networks were able to outperform both standard logistic regression and the more complex nonlinear statistical technique of correlation and regression trees."[28] Even so, it is emphasized that "the final arbiter of any clinical decision should always remain the clinician."[29] It is predictable that with the evolution of computing power available in the clinical environment, neural networks will be used more frequently to help manage patients. Examples of neural networks assisting with the management of large data sets are evident today. EAST is poised to evolve in the direction that capabilities such as these will take.

For those who remain skeptical, perhaps I can persuade you with evidence that funding may be available to help support this sort of "global" thought. Over the past 3 years, the Bill and Melinda Gates Foundation has committed more than $1.7 billion of its $21.8 billion endowment to help prevent and eradicate diseases that afflict people living in the poorest of nations.[30] The major emphasis has been on vaccinations. Many of our inner cities and rural environments could easily pass for "third world countries," on the basis of their health statistics, including that of trauma. It would be intriguing for the trauma societies, through inspired leadership, to bring some of this largess to bear on the issues at home.

EAST should come to be known as an organization that "leverages diversity" by cultivating opportunities through different kinds of people. Successful business models that incorporate people with this diversity competence show evidence of respecting and relating well to people from varied backgrounds. Bias and intolerance are challenged, and diversity is seen as an opportunity.

For a young organization, but 14 years old, we have much to celebrate. Even so, we are in our adolescence, and we are still in a continued process of refining our identity. This last year, in particular, has been a time for reflection and introspection. As with adolescents, at times, our young organization seems to self-test, using old templates of reality as a reference. We have rediscovered some truths, challenged some traditions, and have finally integrated our new sense of reality into what already has become a unique, organizational culture.

There are a few milestones, and our past successes can be measured in many ways. Under the guidance of Dr. Orlando Kirton, our membership has grown to almost 800 strong. Other members have helped to develop areas of educational interests that are unique to the organization. Notable among these accomplishments have been the evolving activities of the Practice Management Guidelines Committee (now under the guidance of Dr. Fred Luchette), and the various courses, including Ultrasound (Drs. Grace Rozycki and Gauge Oschner), Inferior Vena Cava Filter (Dr. Ron Sing), the Trauma Directors Courses and Workshops, and the Firearm Injury Prevention Initiative (Drs. Jack Bergstein and William Schwab). These activities have captured the energies and imagination of the membership and continue to have a positive effect on the practice of trauma surgery in the most global sense.

As an illustrative example of how the organization responds to the needs of its members, it may be helpful to let you know the story of the development of the Trauma Directors Course. Dr. Wayne Meredith, while engaged in the American College of Surgeons' Verification Site Visits to trauma centers across the country, recognized there was a void in the experience and training of surgeons who were suddenly charged with the task of organizing and running a trauma center. Through his vision, in collaboration with Drs. William Fallon and Michael Rotondo, he developed the Trauma Directors Course. This course has enjoyed unmitigated success since its inception in January 1998. The curriculum of this course has been refined over successive years, and now, under the direction of Dr. Jeff Young, it has evolved into a Trauma Director's Workshop, which has been of profound value to the membership.

This is one example of an activity that demonstrates the rapid response to perceived need and the commitment of members of our organization to the mentoring of our young members. This process is our passion.

In this very room, no doubt, are some of the leaders of the future who are destined to be heroes in some defined way. EAST, in its continued success, will find ways to define the avenues that trauma surgery, through its influence in complex

systems, adds value to the enterprise overall. Trauma is one of few disciplines which, as a part of its daily activity, serves to bind the majority of a hospital's services together and demands that they work at maximum efficiency under challenging circumstances for what may sometimes seem an intangible outcome. EAST members are all skilled, and they possess superior motivation, courage, and compassion. This is an all-American team. We all bring something unique to contribute—individual talents to complete the task at hand. We will need to redefine that task in such a way that it continues to attract the very best minds and captures and transmits to our students and young residents the enthusiasm and passion that we felt when we chose this field as a career.

The EAST of the future will be defined, not by its name, location, or its range of services, but by the experience that the members have in working on behalf of their organization. Clearly, our energies will need to be focused in such a way as dictated by our economic capacity. However, with the ubiquitous availability of information, the services that we may provide could potentially be limited only by imagination. The only unique feature of EAST, then, will be the "how"—the way that the organization serves its young and aspiring trauma surgeons as an organization dedicated to them as the primary "consumer." Innovation and creativity will be critical as we create the future of EAST. We will need to be passionate about seeking new ideas, aggressively reacting to change and accepting risk as a part of our tradition.

What then are the essential professional qualities, unique to our profession, that can be assigned to those who have achieved the status of *heroic* leadership? Popular definition may be imperfect in completeness. Perhaps you will now be better able to judge for yourselves.

On behalf of our patients, the victims of trauma, I would like to thank you for your dedicated hard work and the cutting-edge innovative spirit that characterizes EAST. I hope that as you reflect on your own lives, and as you labor in one of the noblest of professions, you think kindly of yourselves.

On behalf of my very patient family, particularly Shawn, Rachel, Tifanie, and Lucinda, and my wife, Sydney, I would like to thank you so very much for both the honor and the satisfaction of serving as your president this past year. Look about you; you are among heroes.

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REFERENCES

1. Newton I. In: Koyré A, ed. *Philosophie Naturalis Principia Mathematica*. 3rd ed. Cambridge, MA: Harvard University Press; 1972.
2. Galilei G; Drake S, trans. *Dialogue Concerning the Two Chief World Systems: The Ptolemaic and the Copernican*. 2nd revised ed. Berkeley, CA: University of California Press; 1962.
3. Coles R. *Lives of Moral Leadership*. New York: Random House; 2000:51.
4. Dzierba AR, Meyer CA, Swanson ES. The search for quantum chromodynamics (QCD) exotics. *Am Sci.* 2000;88:406–415.
5. Thompson S. At large. *Autoweek.* August 21, 2000;50:16.
6. Maull KI. Dispelling fatalism in a cause-and-effect world: 1989 Eastern Association for the Surgery of Trauma presidential address. *J Trauma.* 1989;29:752–756.
7. Harris BH. Searching for values in changing times. *J Trauma.* 1990; 30:676–680.
8. Jacobs LM. Eastern Association for the Surgery of Trauma 1991: presidential address. *J Trauma.* 1991;31:978–986.
9. Champion HR. EAST presidential address: reflections on and directions for trauma care. *J Trauma.* 1992;33:270–278.
10. Schwab CW. Violence. America's uncivil war—presidential address, Sixth Scientific Assembly of the Eastern Association for the Surgery of Trauma. *J Trauma.* 1993;35:657–665.
11. Rhodes M. Practice management guidelines for trauma care: presidential address, Seventh Scientific Assembly of the Eastern Association for the Surgery of Trauma. *J Trauma.* 1994;37:635–644.
12. Boyd C. On timeless principles in changing times. *J Trauma.* 1995; 39:815–817.
13. Hassett JM. Do it right, do the right thing. *J Trauma.* 1996;41:1–3.
14. Fallon WF Jr. Surgical lessons learned on the battlefield. *J Trauma.* 1997;43:209–213.
15. Morris JA. The evolving role of a scientific society. *J Trauma.* 1998;45:205–207.
16. Fabian TC. Evidence-based medicine in trauma care: wither goest thou? *J Trauma.* 1999;47:225–232.
17. Reath D. Why am I here? *J Trauma.* 22000;49:171–176.
18. Bland KI. Challenges to academic surgery: the impact of surgical fellowships on choice of an academic career. *Bull Am Coll Surg.* 2000;85(4):17–23.
19. Souba WW. AcademicSurgery@Leadership.you. *J Surg Res*. 2000; 90:5–9.
20. News From Faculty Development, and Diversity at Harvard Medical School. The importance of good mentoring is recognized at Harvard Medical School. *Mentations* [online news bulletin]. 1995;1:1. Available at: http://www.hms.harvard.edu/fdd/ment/fall95/import.html. Accessed January 4, 2001.
21. Sheldon GF. Trauma manpower in the decade of aftershock. *Bull Am Coll Surg.* 1992;77:6–12.
22. Esposito T, Maier R, Rivara R, Carrico C. Why surgeons prefer not to care for trauma patients. *Arch Surg.* 1991;126:292–297.
23. Mechanic D. Changing medical organization and the erosion of trust. *Milbank Q.* 1996;74:171–189.
24. Souba WW. The commercialization of American medicine: are we headed for curing without caring? *J Surg Res.* 1997;67:1–3.
25. Knight I. *The Anatomy of the Zulu Army from Shaka to Ceteshwayo: 1818–1879.* London, England: Greenhill Books; 1995:48.
26. Hamilton C. *Terrific Majesty: The Powers of Shaka Zulu and the Limits of Historical Intervention.* Cambridge, MA: Harvard University Press; 1998:34.
27. Goleman D. *Working with Emotional Intelligence*. New York: The Bantam Dell Publishing Group; 2000:102.
28. Dybowski R, Weller P, Chang R, Grant V. Prediction of outcome in critically ill patients using artificial neural network synthesized by genetic algorithm. *Lancet*. 1996;347:1146–1150.
29. Drew PJ, Monson JRT. Artificial neural networks. *Surgery.* 2000; 127:3–11.
30. Perkin G, Foege W. A conversation with the leaders of the Gates Foundation's Global Health Program. *Lancet.* 2000;356:153–157.

Appendix: Institutional Career Training Grants (T-32 Grants), September 1, 2000

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Western Trauma Association

Earl G. Young, MD
Resident Paper Competition

A $500 cash prize and certificate will be presented for the best resident paper presented at the 32nd Annual Meeting of the Western Trauma Association to be held February 23–March 2, 2002 in Whistler-Blackcombe, British Columbia, Canada. This award is presented in honor of Earl G. Young, MD, a former President and Founding Member of the Western Trauma Association. Completed manuscripts will be submitted to *The Journal of Trauma* for publication. Original resident/fellow clinical or basic science research abstracts must be submitted by **October 1, 2001** to:

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