EAST 2015 Presidential Address: Look both ways

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Kimberly A. Davis, MD, MBA, EAST president.

Thank you, Stan, for such a nice introduction. It is truly an honor and a privilege to have served as the president of this outstanding organization for the last year. Before I begin my comments, there are a multitude of individuals who I need to thank for, without them, I would not be standing here today. The first are clearly my parents, Warren and Sigrid Davis. My dad, who died in 2001, would have been thrilled about this—it was from him that I learned to work with my hands, whether it was decorating the ceiling of the bathroom in Vermont, grouting the tub, or helping with the plumbing when there was a leak. He was an amazingly supportive man, and he is greatly missed. My mother too has been very supportive, offering advice and encouragement, while constantly pushing her children to strive to be better and do more. My sister Meredith, her husband Nick, and their three children, Nicholas, Charlotte, and Tim, were unable to make the trip but have been a constant source of amusement and entertainment. And, finally, my brother Gregory, his wife Kerry, and their adorable daughter Claire are here and enjoying Disney. Moving back to the East Coast has allowed me to be more engaged in all of their lives, something for which I am very grateful.

I would also like to thank my mentors, particularly Dr. William Cioffi, chairman at Brown and the immediate past president of the American Association for the Surgery of Trauma. Cioffi has been a friend, a colleague, and a confidant for 20 years. He arrived at Brown during the start of my fourth year of residency. Despite the fact that our first interaction probably convinced him that he

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Presidential address presented at the 28th Annual Scientific Assembly of the Eastern Association for the Surgery of Trauma, January 13–17, 2015, in Lake Buena Vista, Florida.
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DOI: 10.1097/TA.0000000000000665

had made a strategic error in taking the job at Brown, he has always been at the other end of the phone when I needed him and has regularly offered sage advice. Interestingly enough, we have similar recollections of that first encounter, and since we probably hadn't performed up to par, perhaps his first impressions were accurate.

I would also like to thank Past President Tim Fabian and the team at Memphis—Martin Croce, Liz Pritchard, Ken Kudsk, and Gayle Minard—who taught me what it meant to be an academic surgeon. I would like to single out particularly Tim and his beautiful bride Denise, who welcomed me into not only the fellowship but also their home, their lives, and their hearts. Without them, and the rest of the tightly knit faculty in Memphis, fellowship would have been so much more difficult. I have tried to bring the lessons learned in the Fabian's kitchen to my practice at Yale—the team that plays together stays together.

I spent the first 8 years of my career at Loyola University Medical Center in Illinois. My partners, Drs. Richard Gamelli, Larry Reed, Fred Luchette, Tom Esposito, Geoff Silver, and John Santaniello provided both friendship and camaraderie. They were an awesome group of individuals to work with, and I learned something from each and every one of them. Leaving Chicago was hard. However, after more than a decade away, it was time to return home to the East Coast.

I arrived at Yale in 2006, recruited by Dr. Rob Udelsman. Rob is an amazing chairman and has strongly mentored and encouraged the growth and development of the acute care surgery program at Yale. During the last 8 years, we have grown from a core group of four to a team of nine. Although several members have moved on and new partners have joined, my colleagues Kevin Schuster, Felix Lui, Linda Maerz, Adrian Maung, Dirk Johnson, Bishwajit Bhattacharya, Gary Kaml, and Kevin Pei continue to offer humor, friendship, hard work, and amusement, particularly through all of the inside jokes that scare recruits when they go out to dinner with us… we truly are a family. I am also indebted to the members of Yale–New Haven Hospital who administer the large engine that is the trauma program and keep us running—thank you for your friendship, support, and hard work. Finally, a huge shout-out to the woman who runs my life, my assistant Dana Jehan, without whom I would not be able to function.

I joined EAST (Eastern Association for the Surgery of Trauma) in 1999, fresh out of fellowship. My first meeting was at Sanibel Island, and I marveled at being able to hang out and socialize at the pool with people whose literature I had been reading for years. All the individuals in this room know what an amazing organization EAST is. I would like to acknowledge my friend and your executive director Christine Eme for her tireless efforts on behalf of the organization. She and her support staff, Rachel Dixon, Katie Dwyer, and Kelly Leiseca, have allowed this organization to flourish and take on new initiatives in support of young trauma surgeons. I would also like to thank Mike Rotondo who, as the head of the nominating committee, asked me if I would be willing to serve on the Board, and my past presidents, Drs. Nagy, Block, Reilly, Jenkins, Barquist, Salomone, and Sagraves, for serving as role models and for positioning EAST so well for ongoing success in our second quarter decade.

And, finally, to my Board of Directors, including the Executive Committee, the Directors at Large, and the Ad Hoc Committee Chairs, thank you for doing the heavy lifting for the organization. I know I am leaving the future of EAST in extremely capable hands.

Tim Fabian once noted that presidential addresses delivered scientific, motivational, or historical messages. Mike Rotondo and Bill Cioffi both said that a presidential address should be personal and, hopefully, something of value. My address, neither scientific nor historical, is entitled "Look both ways." The title and some of the content came to me about a year ago—when I had a major decision to make. I was at a crossroads in my career as I had the option to pursue an administrative leadership position at my institution or continue on an academic trajectory that was well within my comfort zone. Although I had made career decisions in the past, this one took on a larger magnitude than others had, as it represented a potential paradigm shift in my career. For weeks, usually daily at 3:00 AM, I would wake up recalling conversations that I had been having with several of my mentors and colleagues regarding not only my upcoming decision but also the next iteration of my career. Interestingly, as I discussed the opportunity in question, I received a different viewpoint from each and every one of my mentors, both pro and con. All had valid arguments, colored by their own career paths and experiences. I think it was the third time that I spoke with Cioffi that he said, "I think you need to decide who you are and what you want."

Careers and career paths are often conscious choices for many of us. All of us in this room have made the conscious decision to care for the critically ill and injured. Most in this room have agreed to promote advancements in the treatment of our patients through research and ongoing education or we would not be here at the 28th annual meeting of EAST. However, how many in this room have weighed both the pros and cons of all of our decisions, career and otherwise?

Many of our decisions depend on the situations in which we find ourselves and are therefore more reactive than proactive. I am reminded of my childhood—when my parents had to continually remind me to stop and look both ways before crossing the street. Such behaviors become ingrained across time when they relate to self-preservation. Such self-preserving behaviors though may not be enough, depending on the time and place of implementation. For example, I clearly remember traveling to London with my parents one summer. Despite multiple warnings to the contrary, I looked the wrong way and promptly tried to step out in front of a red double-decker bus. Fortunately, my father, more situationally aware than I, pulled me back onto the sidewalk.

In making decisions regarding career choice, we may do less than due diligence, relying more on gut feeling than on a consciously analytical decision. Perhaps once we get on a path that we find comfortable and familiar, it is difficult or scary to deviate into the unknown and unfamiliar.

I am the first and only physician in my family. As a child, my mother would often stress the importance of a career that had meaning and was sustainable. She often suggested that a career in medicine would be perfect: I could build on my academic strengths and have a career where there would always be a job. You could say, and she has, that I was programmed to go to

medical school, a decision I do not regret, even if it may not entirely have been my own. Subsequent decisions, such as choosing surgery, and trauma surgery in particular, were mine but were based more on aptitude, personality, and role modeling. And, of course, there were the idols of my youth, such as the characters of Hawkeye Pierce and Trapper John McIntyre from the television series M*A*S*H.

I, like many of you, was guided into my current field not only by the experiences of surgical training but also by role models that I admired and respected. Then Chief of Trauma at Brown, Bill Cioffi sent me to Memphis and the tutelage of Tim Fabian, stating that if I survived 2 years in Memphis, nothing that I encountered clinically would surprise me. Memphis offered an outstanding clinical experience and so much more. Importantly, I learned to question how and why we do things. From Fabian, I learned that arriving at a question is only half the battle—the rest depended on your ability to think outside of the box and step beyond your comfort zone.

The early aspects of our careers are fairly straightforward for most of us. It is a time to build a practice, refine clinical expertise, and revel in the ability to care for our patients. Along the way, many in this room will have participated in clinical, basic science, or outcomes research, and most, if not all, will have built a strong foundation for a long career. Some careers however are longer than others.

As many in the room are aware, I faced a number of health challenges several years ago that brought into question whether or not I could continue as a surgeon. While I will not bore you with the details, I will say that I was worried that I would no longer physically be able to stand, operate, and care for patients. For me, this represented a crisis in consciousness—all I had trained for and worked for across the years was threatened, and I began to think about how to reinvent myself. And, predictably, I turned to something I knew that was familiar—school.

In 2012, I graduated with an MBA, with a focus on health care. Returning to school was both familiar and unfamiliar. I clearly knew how to study and how to pass examinations, but it had been a while—at least 7 years since my last recertification examinations and longer since I had sat in a classroom. Like many of my more senior classmates, although I learned something in every class, I found the classes in organizational behavior the most useful. Organizational behavior, or OB as it was known—which managed to confuse me repeatedly—focuses on the softer but probably more important sciences of communication, teamwork, and social interaction. One of the hardest classes for me to grasp was one that forced us to frame a discussion from a point of view completely foreign to my internal belief structure. The idea of viewing a problem or a decision through multiple frames is an easy concept to understand but often a difficult concept to implement. Changing frames on a decision allows the individual to examine a full range of available options and review potential risks and benefits thereof. An effective framing process ensures that multiple points of view are examined and hopefully encourages the elimination of biases toward a specific outcome. Altering frames is also useful in negotiation and in debate; for example, if you are in the process of negotiating with a hospital administrator, it is often important to understand his or her frame of reference, and how if differs from your own, to help define your strategies for negotiation. Often, seeking counsel from trusted advisers can help define the frames through which you should view your decision.

So we come back to the title of my talk, "Look both ways," and will examine the process of decision making. Experts in decision making state that it is not an event. Decision making is a process, one that unfolds across weeks or months. It might be fraught with power plays or politics and replete with personal nuances and biases. It has been said that people who make good decisions recognize that all decisions are processes, and they explicitly design and manage them as such.[1] Sigmund Freud, the father of the unconscious, did not agree and stated:

> *"When making a decision of minor importance, I have always found it advantageous to consider all the pros and cons. In vital matters, however, such as the choice of a mate or a profession, the decision should come from the unconscious, from somewhere within ourselves. In the important decisions of personal life, we should be governed, I think, by the deep inner needs of our nature."*[2]

In his book, *Blink*, Malcolm Gladwell discusses the adaptive unconscious, the part of the brain that leaps to conclusions. The adaptive unconscious is thought of as a kind of giant computer that quickly and quietly processes the data we need to keep functioning as human beings. It is the part of the brain that reacts before you get run over by the train. We are innately suspicious of this kind of rapid cognition. We live in a world that assumes that the quality of a decision is directly related to the time and effort that went into making it. We tell our children, "haste makes waste," "look before you leap," "don't judge a book by its cover," etcetera. We believe that we are always better off gathering as much information as possible and spending as much time as possible in deliberation. But there are moments, particularly in times of stress, when haste does not make waste, when our snap judgments and first impressions can offer a much better means of making sense of the world, according to Gladwell.[3]

So how do we make decisions and what are the unconscious pitfalls that may exist? Often, when faced with a new situation, we make assumptions based on prior experiences and judgments. The use of heuristic or experience-based techniques for problem solving may generate less than optimal results. Compounding the problem with using high levels of unconscious thinking is the lack of checks and balances in our decision making. Our brains do not naturally follow the classical textbook model: lay out the options, define the objectives, and assess each option against each objective. Instead, we analyze the situation using pattern recognition and arrive at a decision to act or not by using emotional tags.[4]

Decisions can also be affected by the order in which information is received. When considering a decision, the mind gives disproportionate weight to the first information it receives, an often pernicious mental phenomenon known as anchoring. Once an anchor is set, additional information may be biased by the anchor while decisions may be made by adjusting away from the anchor. Salesmen rely on anchoring—they start negotiations at a higher price than a purchase is worth, so that the customer is satisfied a lower price, despite the fact that they may still be paying more than the purchase is worth. It is important to

recognize that you can anchor your advisors so that they will agree with you, depending on the way in which you present information to them. It is often better to provide as little information as possible about your own ideas or tentative decisions to your consultants so that the information that you receive back does not merely reflect your own preconceptions.[5]

Another of our deep-seated decision-making biases involves maintaining the status quo in a way that allows us to justify past choices even when the prior choices may no longer be valid. Maintaining the status quo allows us to protect our egos from damage. If we break from the status quo, we must take action, and responsibility for that action, which may open us to self-criticism and regret. Most of us have fallen into this trap at one point or another. For example, I and likely some of you have refused to sell a stock at a loss, even when the monies could be better invested in more high-performing stocks. Economists view these decisions as sunk costs, old investments of time, or money that are unrecoverable. And why do we do this? As Warren Buffett says, "Chains of habit are too light to be felt until they are too heavy to be broken." Experts believe that people are unwilling to free themselves from past decisions because they are unwilling to consciously or unconsciously make a mistake. Sticking with the status quo puts us in less of a psychological quandary.[5] However, in the words of Will Rogers, "If you find yourself in a hole, stop digging."

Having reviewed the theory behind making good decisions, I would like to focus on what I think are the key points. The literature would suggest that gut instinct can only take you so far. The absence of a sound decision-making framework will eventually result in misinformation, misunderstanding, impulsivity, or error. Gut instinct must be used in conjunction with data and knowledge to arrive at a good decision. It is important to assess the credibility of the data analyzed and any bias that may be introduced into the decision-making process. A risk reward analysis, or a list of pros and cons, can often add perspective.[6] And if there is the luxury of time, reevaluation and reassessment at a later time can add clarity. As Marshall Goldsmith said in his book, *What Got You Here Won't Get You There*, "The best ideas are like great wines. They improve with age. But they can also go through a dumb period when they need time to settle and sink in."[7] I would submit to you that the word "decisions" could easily replace the word "ideas" in this quote. As Malcolm Gladwell has said, "…truly successful decision making relies on a balance between deliberate and instinctive thinking."[3]

In the remainder of this address, I would like to focus on areas of opportunity where decisions are needed. First, I would like to return to the personal decision that inspired this talk. After carefully weighing advice from friends and colleagues, spending a significant amount of time in introspection and ultimately making a several-page list of pros and cons, I recused myself from further consideration for the administrative position. Once I had made that decision, I was pleasantly surprised that my extensive deliberation resulted in a sense of peace because the final decision resonated with my gut feelings.

There are professional decisions to be made both at an organizational level and at a more global level. I joined EAST in 1999, when our membership was approximately 600. During my 9-year tenure on the EAST Board, many changes have occurred. EAST has entered its second quarter century and, with the aging of the organization, so too has its membership matured.

We have grown during the last decade from an organization of more than 1,100 members in 2007 to one of almost 1,900, with more than 35% of our members in the senior category (Fig. 1). Challenges brought on by such rapid growth include operational issues, specifically how to get a 10% quorum of voting members for changes requiring a membership vote. After careful deliberation, your Board has opted to include the possibility of electronic voting but hopes that at least 10% of voting members, now almost 200 people, will continue to attend the business meetings at the Annual Scientific Sessions and allow the organization to continue to function. Two deeper questions will need to be addressed going forward. The first is to define the role of our senior members in an organization whose mission statement is dedicated to the young trauma surgeon. The second is to find ways in which the organization can continue to innovate and provide value to its membership. While I cannot completely

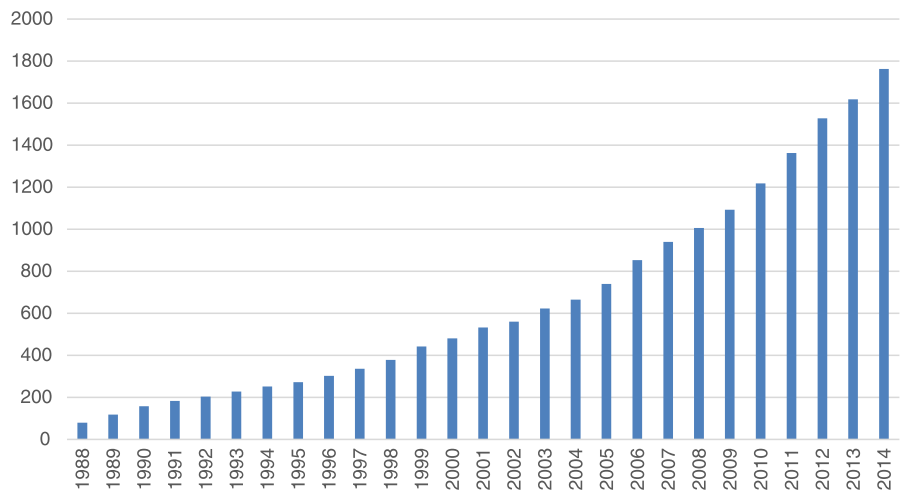

Figure 1. Membership in the Eastern Association for the Surgery of Trauma by year.

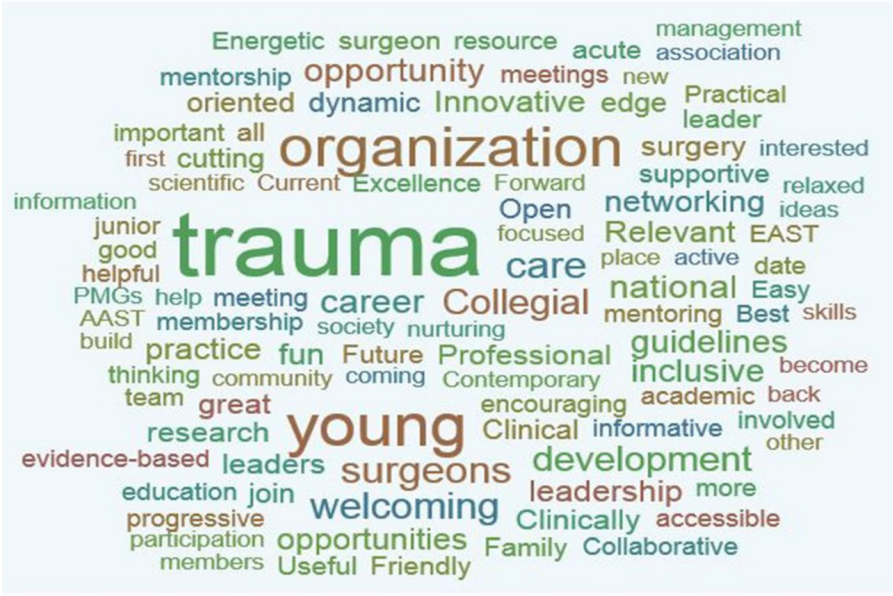

Figure 2. Word cloud showing terms used by EAST members to describe EAST from a survey of the membership in 2013. Reproduced with permission from .orgSource.

answer these questions, they are challenges that face and will continue to face EAST as the organization continues to mature. As William Shakespeare once wrote, "…we know what we are, but know not what we may be."[8]

In 2013, the Board held a strategic retreat to set priorities for the organization and to ensure that EAST maintained relevance for its membership. One of the work products of the retreat was a membership survey, the results of which I presented at last year's Annual Scientific Assembly (Fig. 2). Key to our brand, 28 years after the inception of the organization, remained the phrases "trauma," "collegial," "welcoming," "leadership," "mentoring," and "innovation."

In keeping with EAST's mission statement, we have aggressively recruited our fellowship trainees into the organization and continued to offer leadership development opportunities. Several individuals who were fellows in training early in my tenure are now active and vibrant contributors to EAST. To my mind, EAST has excelled not only in its commitment to leadership development but also in its commitment to mentorship. As many of my mentors are in the room, I would like to again thank them for taking the time to guide and counsel me. Without strong mentorship, a career is often about continually reinventing the wheel and figuring things out as you go. However, with insight and guidance, there can be less "figuring it out" and more moving forward. Mentorship is not only about the time spent under the tutelage of a more senior individual. Mentorship is, or should be, a lifetime commitment to provide a shoulder to lean on, an ear to listen, and a reflection in which to judge past and future decisions. Mentors are not always right, but they are thoughtful individuals whose input should be valued.

As I look back, I remember sitting in Tim Fabian's office shortly before I left Memphis to begin my first job in Chicago, and he was reflecting on his career as an academic surgeon and mentor. He said, and I paraphrase as my memory is no longer perfect, "our time in this game is fleeting, so it becomes the people with whom we work, those we mentor, and those we train that are important and will carry our legacy forward." As I look forward, we, as a profession, need to be dedicated to the education and development of those who come after us. As I enter my "has been" years at EAST—full disclosure, I am now a "senior" member—I have been increasingly impressed with the need for mentorship. EAST, as an organization, has been on the forefront of creating mentorship opportunities as it remains an organization dedicated to the young trauma surgeon. EAST fosters camaraderie in a nonthreatening environment, encouraging more junior members to meet and interact with some of the icons in the field of American trauma surgery, many of whom are our senior members. EAST formalized its commitment to mentorship in 2012 and will soon be identifying its fourth class of mentor-mentee pairs. The feedback on this remarkable program has been overwhelmingly positive.

I encourage those of you who feel you lack mentorship in your home institutions to draw on the expertise offered through this groundbreaking program, as it espouses the ideals and missions of EAST. It is important to look forward and continue to facilitate the careers of those who come after us. Our careers, while clearly individually important in the short-term, will be less important when viewed through the lens of time. However, the legacy we leave in the individuals we have impacted during that career will have long and far-reaching effects. As Steven Spielberg has said, "the delicate balance of mentoring someone is not creating them in your own image, but giving them the opportunity to create themselves."

Having reviewed some of the challenges and opportunities facing EAST, I would to change gears and look more globally at the future of surgical training in general and trauma and acute care surgery in particular. As a way of setting the backdrop for this discussion, I would like to review the changes that have occurred in multiple arenas that have impacted surgical training.

To start, the management of four major disease categories has changed dramatically during my career. I was a resident when the first histamine type 2 receptor blockers were introduced into common practice, followed by the flood of protein pump inhibitors. The creation of these two classes of medications, as well as the recognition that *Helicobacter pylori* infection contributed to ulcer disease, has decreased the frequency of operative management for gastroduodenal bleeding and perforation dramatically. When I was a resident, an antrectomy/vagotomy was a junior-level case. Gastric surgery now is limited to oncologic surgery and bariatric surgery, and most bariatric surgery is done laparoscopically.

Another disease that has essentially vanished from the surgical armamentarium is the management of common duct stones, which are predominantly managed by endoscopic methods. The end result of these technologic improvements is that exposure to the common duct is no longer common and is usually seen in oncology and transplant surgery and rarely in the trauma and emergency general surgery realm. The third operative disease that has changed dramatically is the management of aortic aneurysmal and occlusive disease, now managed mostly with stents. Although chief residents in the 1990s did a large volume of open vascular surgery, exposure to the great vessels of the abdomen now is uncommon, limiting the ability of general surgery residents to become proficient. Finally, and I am preaching to the choir on this one, the incidence of significant blunt and penetrating trauma has been declining for years, limiting operative experience in the management of injury.

The most significant technologic change that has impacted general surgery training is the development of first straightforward and then more complex laparoscopic procedures. I remember that laparoscopic appendectomy first became commonplace as I was graduating from residency. The plethora of laparoscopic fellowships that developed, often industry funded, resulted in a large number of minimally invasively trained surgeons. However, as routine laparoscopy has permeated general surgery residency training, it is likely that most MIS fellowships will morph into bariatric and foregut surgery fellowships.[9]

The last change that has impacted general surgery training is the advent of the 80-hour workweek restrictions and now the 16-hour restriction on intern duty hours. Overall, these changes have reduced resident exposure to clinical experience by approximately 33%, assuming that before the change, residents were working approximately 100 hours per week.[9] Residents have less time to observe in the operating room when not the primary surgeon, offsetting the balance of service versus education. Clearly, the age of "see one, do one, teach one" has passed. The forced transitions in care that have developed because of work hour restrictions will have far-reaching effects that will be difficult to quantify. Continuity of care is most impacted as residents arbitrarily have to leave, often before performing surgeries on critically ill individuals that they have worked up and resuscitated. This has resulted in a whole new area of research, the field of "handoff" evaluation, as patient care is passed from provider to provider. The ACGME (Accreditation Council

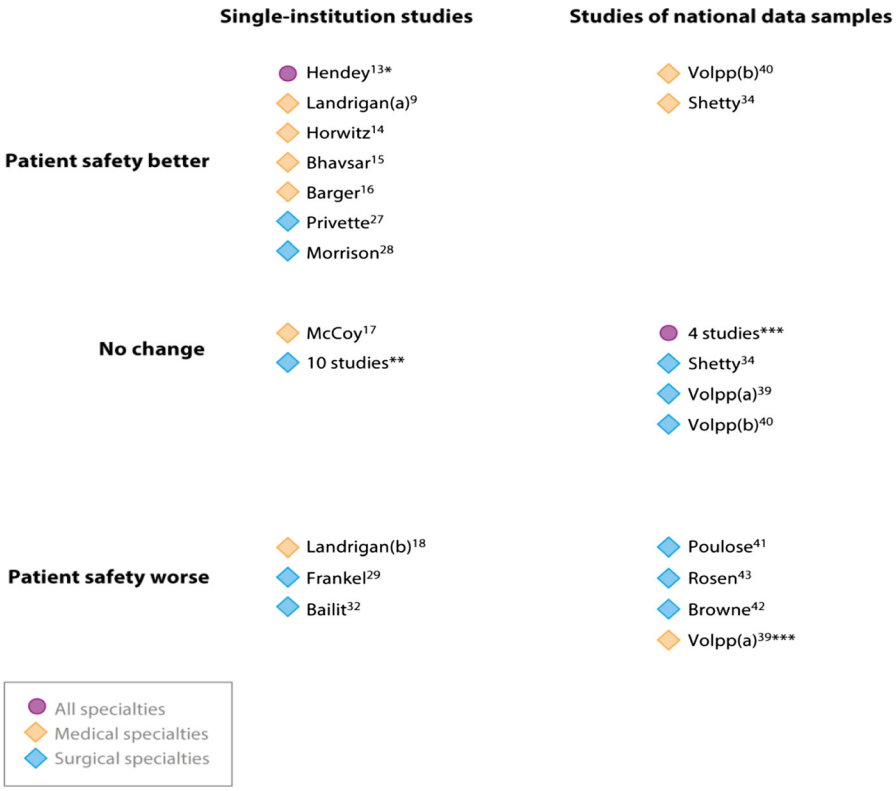

Figure 3. Duty-hour limits and quality and safety in teaching hospitals. From Philibert et al.[8] Reproduced with permission of *Annual Review of Medicine*, Volume 64 © 2013 by Annual Reviews, http://www.annualreviews.org.

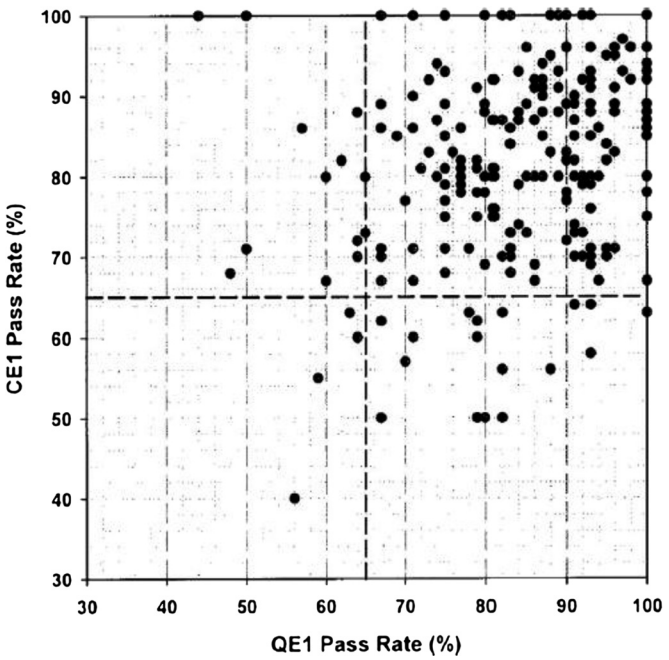

Figure 4. American Board of Surgery Qualifying and Certifying examination pass rates for all general surgery residency programs (2010–2011). From Klingensmith and Lewis.[9] Reproduced with permission of *Advances in Surgery*, Volume 47 © 2013 by Elsevier, Inc.

of Graduate Medical Education) recently performed a meta-analysis of the effect of work hours on the quality of patient care, with surgical patients denoted in blue (Fig. 3). Note the overall significant negative effect on the quality of care rendered to surgical patients.[10]

All of the above issues have raised questions about the quality of surgical residency training. Ideally, all programs would have uniform success in trainee performance, with most trainees passing the American Board of Surgery (ABS) Qualifying and Certifying examinations.

However, quality in general surgery residency education is not uniform, and approximately 18% of programs fall short of the 65% pass rate thresholds for either the qualifying or the certifying examinations (Fig. 4).[9] Ideally, thoughtful restructuring of surgical education is needed to ensure that all residents receive adequate training, which may require significant innovation. As John Maynard Keynes has said, "…the difficulty lies not so much in developing new ideas as in escaping from the old ones."

The ABS has addressed the aforementioned issue in several ways. Firstly, they have begun defining and continually

Figure 5. Survey results on resident opinion regarding surgical resident training. Data abstracted from Yeo et al.[11]

updating the curriculum for general surgery residency through the SCORE module. Another unique course that was developed by the Society of Gastrointestinal and Endoscopic Surgeons is the "Fundamentals of Laparoscopic Surgery" course, which is mandated by the ABS for certification. Both represent efforts by the ABS to ensure standardization of education across residency programs.

And yet, almost 80% of general surgery residents will pursue fellowship training after graduation, 50% of them in fellowships that are not ACGME approved. A study by Yeo et al.[11] from Yale reported survey results on resident opinion regarding surgical resident training (Fig. 5). More than 4,402 residents in 248 of the 249 surgical residency programs participated in the survey, representing 82% of all categorical residents at the time. The findings demonstrated that residents believed fellowship training to be necessary for them to be successful and competitive and to have a better lifestyle and income.[11]

A comprehensive discussion of the decisions regarding the future of general surgery training is clearly beyond the scope of this address. In reality, it is likely that the future of general surgery training will remain a moving target for a while, during which talk of early specialization will continue to be debated. I can however provide some insight into the future of trauma and acute care surgery and highlight some areas that will need to be clarified moving forward.

The ABS and most surgical educators support the concept of establishing standards for training that are common for postresidency fellowships, including the development of milestones of progress, and the pragmatic use of objective testing of knowledge and independent experience of the fellows. Acute care surgery as a named specialty is entering its second decade. As with all things, with maturity come growing pains. The training paradigms of our fellowship programs are maturing and undergoing a process of reevaluation and retooling. Spearheaded by the American Association for the Surgery of Trauma, the operative curriculum expectations of the fellowship has been revised to better clarify the operative skill sets expected of a graduating fellow.[12] Rotations in thoracic and vascular surgery have been strongly encouraged to allow fellows to meet the expectations of their training. And case numbers have been suggested both to assist program directors in their discussions with subspecialty rotation directors and to give the fellows guidance as to the types of cases expected from an acute care surgery fellowship. The examination given at the end of the fellowship is continually being evaluated to ensure that the content of the examination mimics the training and education of the fellows. Despite this very positive forward progress, there are still areas that will need to be addressed in a thoughtful manner.

As the acute care surgery (ACS) fellowships currently stand, there is not a standard didactic curriculum for all fellows designed to ensure the fellows are prepared for the end-of-fellowship examination. Discussions are underway regarding whether a SCORE-type module covering trauma and emergency general surgery topics would be appropriate versus a somewhat different platform. A similar discussion is occurring through the Surgical Critical Care Program Directors Society as it pertains to surgical critical care. Ideally, educational materials directed at fellows should offer a level of complexity well beyond that offered in surgical residency training. Perhaps incorporation of expert opinion discussing areas of management controversy may offer more to the fellows than straightforward didactics.

In addition to defining and updating the curriculum for general surgery, the leadership at the ABS has proposed other possible fixes for general surgery training, including possible earlier specialization in residency training, increasing the length of residency training or embracing the "transition to practice" fellowships initiated by the American College of Surgeons.[9] With the currently existing defined structure of the ACS fellowships, including the approval/reapproval process, the curricular development and expectations, and the end-of-fellowship examination, the ACS training paradigm is well positioned to remain relevant in the changing world of surgical education. As George Bernard Shaw said, "Progress is impossible without change, and those who cannot change their minds cannot change anything."

So where do I think acute care surgery should go during the next 3 to 5 years? I believe that we need to build on the strong foundation of process and structure that already exists. In my mind, it is necessary to create a comprehensive core curriculum that offers not only state-of-the-art media dedicated to the complex exposures and technical tricks needed when "operating under water" as I like to describe massive hemorrhage but also a compendium of "tricks of the trade" from our master surgeons. It is not enough to rely on more traditional surgical educator models of "see one, do one, teach one" as the case that the fellow may need to see may not always present during that fellow's training. Now is the time to move forward with this curricular effort. A second priority for ACS training should remain the development and maturation of a secure end-of-fellowship examination, with psychometrics to demonstrate that we are testing what we are training. To do this, a pass rate for the examination will need to be set. Across time, as the fellowships continue to mature, achieving a pass rate on the examination should become mandatory. Finally, we as a community need to arrive at several research questions that we wish to answer regarding not only the training of acute care surgeons but also the value delivered by our specialty to our patients and the medical community at large. As C. Edwards Deming has said, "If you can't measure it, you cannot manage it."

As I turn the leadership of EAST over to Stan Kurek and the incoming Board of Directors, I would like again to emphasize the importance of this organization. I hope that EAST will continue to innovate as it has been doing to remain relevant in these changing times and to support the development of the future leaders in our specialty. Thank you again for the incredible honor of serving as your president.

DISCLOSURE

The author declares no conflict of interest.

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