Old Concepts in a New Millennium

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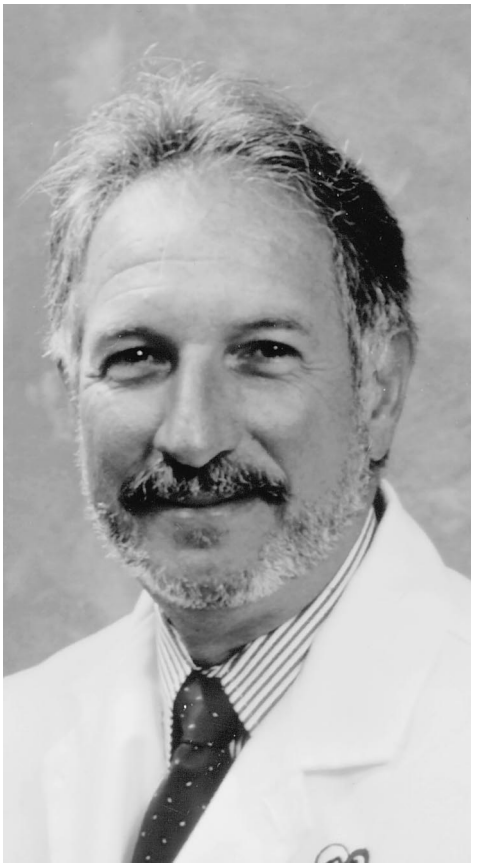
Good afternoon colleagues, guests, and, most of all, friends. I am honored to be here addressing all of you this afternoon. I have been looking forward to this address with a mixture of excitement and trepidation, knowing what I wanted to say but unsure of how to say it. My discussion may not be concise, but I hope it is at least clear and interesting. I know that the ideas expressed are meaningful to me, and I believe that they are valuable to you as well. As I have advanced in age and career, I have examined my past experiences, acknowledged where I am, and attempted to define where I was going and what might await me in the future. In essence, I have asked myself the following four questions, simply stated: Why am I here? How did I get here? Where am I going in the future? What, if anything, will I leave behind? The more I pondered these questions, the more I became convinced of their universality. These are questions all of us have asked in our own way. I hope these remarks will make you examine these issues further and give you food for thought.

We have just entered this new millennium. I remember thinking about the year 2000 when I was young. How old would I be, or would I even be here to see us enter the millennium? Now I find myself having entered this new era with a hope for the future but a firm footing in the past. A past not made of melancholy thoughts, sadness, or regrets, but one of clearly defined ideas, dreams that have been realized, and dreams that will, I hope, become realized. I have seen what, to me, was a relatively simple world with simple goals become one of increasing complexity. I have seen a world that had been very personal become depersonalized and one that was once comprehensible become more difficult to understand. Communication has increased, the world has shrunk, and scientific knowledge has expanded exponentially, far beyond the rate at which I personally can keep up. I am experiencing a world that is in many ways improved almost beyond the visionaries' expectations, yet perhaps its fundamental concepts are changing away from what was meaningful in the past.



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I remember making the decision to enter the field of medicine. It came from a deep-seated fascination with science, the workings of the human body, and the attempt to understand how we changed, adapted, and fought illness. On the basis of scientific knowledge, I was enthralled about how a cell was structured, how each part worked, and how we evolved and adapted. But when I was making the decision to enter the field of medicine, I also remembered how I felt as a child when I was ill. That was at a time when making house calls was still routine. I remember that no matter how ill I felt, the assuredness of my family doctor, the hand holding mine, the smile, and the comfort that was given instantaneously made me feel better. It made me believe that "this too shall pass," and all would be well again. I believed with that simple act of caring that I would shortly be able to go out to play, just

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as I had previously. It is that act of compassion, empathy if you will, that has become such a significant part of the art of medicine. The nonscientific, non data-related, holistic medicine is based as much on talking to a patient, examining him or her with care and understanding, and treating the mental as well as the physical being.

I remember thinking about how good it would be to be able to make others feel better. It was simply a matter of my feeling good and happy because I was able to help someone else to wellness: feeling good by making others feel good. It was this basic thought that guided me along my chosen path, though clearly not in family medicine, but in a specific subspecialty. It is as clear today as it was during medical school how good it felt to have the ability to take a bedridden, incapacitated patient to the operating room, repair a discrete problem, and watch him or her leave the hospital some days later not short of breath, not leading a bed to chair existence, looking forward to a return to a lifestyle that the patient had nearly given up as unattainable. What I did not realize at the time was the depth of the sadness that would accompany the time when I attained the role of responsible physician and the magic did not work, when what I did was not helpful, and the realization that what I do could potentially be harmful. What as a child seemed to be a simple task became the proverbial double-edged sword. I had a new task then: I had to learn how to enjoy my victories and carefully examine my defeats in an attempt to find a possible different way to achieve a better outcome. Clearly, none of us win all the time, but I learned it is how we deal with our disappointments that makes our chances of success next time even greater. The emotions that medicine evokes in me are really a great part of why I am here.

With this background, it is clear to me why I chose medicine. It became my goal and my passion. I was focused, as we all are, and along the way I asked that the others in my life be as focused on my passion as I was. The thought of defeating death, or at least cheating it for awhile, was a goal nobly to be sought. I believed I had the power to do this. What is more, I think that all of us in this room believe we have this power as well. We can all recount the numerous times we have succeeded in cheating the grim reaper, but we are reminded of the times we have been less successful. And we hurt. Deep down inside, there is a hollow feeling, an emptiness, not because we failed but because we did not succeed. And we worked harder, read and studied more, took our ideas to laboratories, experimented, and spent longer and longer hours. But we should not bemoan our time spent, although as we get older we all think about the energy of our youth and how it might have been spent doing other things that we may never get to do as we age. For me, it might have been the climbing the Seven Summits, as we heard from Dick Bass at Snowbird one year. But I am being realistic. I was spending my time and energy and youth doing what I loved. I was enjoying what I was accomplishing and what I was learning. It was, and remains, an exciting time. Over the years, I have learned new procedures, learned more physiology, changed almost my entire practice of Cardiac Surgery on the basis of a desire to improve and advance. This last year and a half, I have realized professional dreams that I never thought would come true. The long hours persist, but they are spent doing what I love. I cannot imagine doing anything other than what I do. I know that I am not alone. We all feel the same way, excited by what we do and what we have accomplished. We have all been supported in one way or another in accomplishing our goals. How we got here is therefore a mixture of our drive, talent, stamina, and sacrifice as well as the stamina, sacrifice, and sharing of goals by those who we hold dear. That support may have come emotionally or financially, but it has been given.

There are others who may have put in those same hours in a different way without that same sense of accomplishment or fulfillment. Those who have had to entertain themselves in our absence and wait while we are doing what we love. I recall a surgical intensive care unit nurse who was dating a surgical resident. She complained about the long hours he was working and that she hardly got to see him. My comment was simple: “You, of all people, should understand.” Her reply was just as simple: “Oh, I understand it, but that doesn’t mean I like it.” I look back on this support from others, allowing us to pursue our goals. They understand our drive and motivation, and so should we understand the sacrifices they have made so we may do what we believe is important and what we love.

We have all gotten here through hard work, dedication, and sacrifice, both on our part and on the part of others. We have all shared a common goal, supported by friends, colleagues, mentors, and family. We have achieved a sense of fulfillment that has made this all worthwhile. I trust that few if any of us doubt the decisions we have made along the way. I believe that all of us would do it again if we had to make a choice, as would those around us who have supported our efforts. It is by understanding why we are here, how we got here, who has supported us along the way, and what is important that we can move effectively into the future. It is by understanding the past that we have established the present and now can properly shape the future. In historical terms, there is the dictum that those who fail to study history are doomed to repeat it. For us in the medical field, it takes on an additional meaning. Not only should we learn from our past experiences and not repeat any errors we might have made, but we have an opportunity to build on both our past and our present. Our knowledge of the past and present experiences will direct our research and guide our clinical practice in the future. Those changes that we make and those questions we seek to answer are firmly founded in the past. They are guidelines by which we have lived, and they are the pointers toward our future. For change we must. There is precious little that I currently do in my clinical practice today that resembles the way I did things during my training. Procedures and techniques have changed and evolved, and I have

tried to evolve and improve with them. We all have done the same. We are clearly in a rapidly advancing field. We will continually be works in progress. The knowledge and data that were available during my training seem primitive when compared with today. We understand so much more now than years ago; our knowledge base and depth of understanding are much more extensive. We certainly strive to keep up, often through meetings such as this one. It is through increasing our knowledge that we improve our future. For it is from this past knowledge that the future is molded. We have entered a new era with increasing technological capabilities. As we advance, continue our research, and push the boundaries of medicine, I am reminded of a statement that I paraphrase: If I am capable of seeing farther that others, it is because I am standing on the shoulders of those who have been here before me.

We now enter the future, but where are we going? We enter with ideas and a vision. We use the knowledge we have obtained and the research that has been done, and still we push it further. Answered questions beget more questions, more research, and more detail. But in answering these questions, we have become increasingly focused on the detail. We begin to deal in the concrete. We try to establish absolutes. Perhaps because it is easier to seek, it can be quantified; it can be black or white, identifiable, unemotional, and comprehensible. We make these answers the "truth." Perhaps the "truth" is to be found in the genetic code. If so, then will we become the ultimate in dispassionate, disassociated diagnosticians? Can a vial of blood, sent for DNA analysis, yield the answer to all illnesses? By genetic engineering, can we alter or cure all illnesses? If so, do we even need to evaluate the patient at all? We continue to eliminate the variables so there can be a definitive answer. Where is the compassionate, caring physician who we all are? Do we now deal with fact, not supposition; data, not feelings or impressions? Perhaps we do this because, on an emotional level, it is simpler. However, remember that our histories and physicals end with clinical impression and differential diagnosis. Remember that in days gone by, the art of the history and physical examination was all that was available. It was very personal then.

Have we removed ourselves to the extent that we are recorders of events, numbers, and data? If we have, then we can immerse ourselves in details such that we cannot feel. We will not feel empty, we will not feel sad, and we will not feel defeated if we have been unsuccessful. Although there is an emotional toll for a research project that does not achieve a concrete answer, all is not lost. We can redesign the project and redo it in a different way, with the major loss being time. Yet even if a project does not achieve definitive answers or the expected results, we are still physicians. We still have our patients who need care. If we regard medicine as only a scientific collection of data, then there is no emotional toll paid when caring for an ill person. This can be a way of distancing ourselves from the critically ill person, alone in a bed in the intensive care unit, on a ventilator, unable to express himself or herself except with the eyes: the eyes that focus on you when you walk toward the bedside. We can sense the fear that is shown by those eyes, which see mostly the machines and monitors around them. Yet we know those eyes that look to each and everyone of us. They look at us with hope. I have seen this many times, both the fear and the hope. It strikes emotions in me that others would advise are better left hidden for fear of the effect they may have on me. I remember a psychiatrist during my general surgery training who spent 1 week in the surgical intensive care unit observing both patients and physicians. He followed us on rounds every time. When his week was completed, he came to me and told me of his observations. He noticed that at each bedside, I would touch the patient's hand or foot, not to examine him or her, but as a sign of caring, to say that I was on his or her side and that I would always speak with him or her, not morosely, but in a manner of encouragement. He observed a difference in their eyes when this was done. I was fascinated that I did this without ever knowing that I did. I now look back on this and realize that what I was doing was a reflection of the reason I entered the medical field. It is a part of medicine that I refuse to give up and one that I encourage all of us to retain. It was brought to the fore in a personal way during a particularly difficult period of my life. I remember always trying to remain upbeat in the face of a known outcome. But I also noticed the oncologist and the humor, humanness, comfort, and hope that was shown, while knowing the end result. And I observed the positive effect that it had on the patient, my late wife, and the spirit it instilled in her. I know that there are those among us today who can recount, from personal experience, exactly that of which I speak.

This organization has a "paint the ceiling" address, which has been a lasting result of just one of those personal experiences. An address dedicated to the humanity of what we do and the humanity of our society. It takes us back to basics, if you will. It is a talk that is the antithesis of what we have accomplished scientifically. The example for me has been my current participation in heart transplantation. On one occasion, there occurred a rare confluence of events. A 29-year-old patient came into the hospital, having collapsed at work with a heart attack. I treated her in association with her cardiologist, but I was unable to stem the inexorable deterioration of her cardiac status. I got to know the family and was able to discuss the options with them. I offered hope for the future. I was then involved in the decision and implantation of a left ventricular assist device. I watched the patient improve with time and, by chance, happened to be on call when a heart was found for her and performed her heart transplant. There are no words that can describe the comfort in her parents' faces when the option of transplantation was discussed and then the smiles when I told the patient and her family that a heart had been found that was a match for her. Nor can I adequately describe the look in their faces nor the feelings I had when some 2 months later I informed them that I would also be performing her heart transplant. I also cannot

adequately explain to you how I felt after I completed the surgery, spoke with the family, looked into the patient's eyes each day, held her hand, and eventually saw her discharged from the hospital, alive and well on her own. This could be considered an amalgamation of my topics today. This incorporates my past training, my present practice, which has been aided by tremendous technology, the growth I have made, and my hope for the future. However, I am still the same physician who has merely embraced these advances and incorporated them into my practice. Therefore, I have expanded the population whose care I can render; yet I have not given up my beliefs in the art associated with our practice. In reality, this was a throwback to my own childhood, when, as I pointed out, my hand was held and I believed that I would get better. Had I not done for someone else what was done for me? This is the humanness in what we do and the affect we can have on others, both in the present and the future. Let us never forget the human aspect of the patient, the family, and ourselves as we continue in our profession.

Yes, we have come a long way, with still a long way to go. We can now perform operations with robotics. We can work through mini-incisions using video-assisted techniques, barely touching the patient. We know why we do this and the advance it represents, but do we forget the depersonalization? We have systems now available that use a heads-up display, robotic arms, and cable or satellite links. We can perform an operation on a person thousands of miles away. Although we know that it would be good for the injured soldier out in the field, it really is the ultimate in depersonalization. Think about it: we never talk to the patient or see the patient except on a video screen, nor do we touch the patient. We are detached and dispassionate, with a singular job to do. As for me, I refuse to be a technician alone. I will incorporate new technology into my practice, but I will not substitute it for the personal involvement.

We all saw this coming. In a talk I gave more than 15 years ago, I shared two slides. The first was of a patient in bed with intravenous lines, a simple monitor, and physicians by the bedside with stethoscope in hands, examining and talking to the patient and using a clipboard for the data. The second slide showed a patient in bed, wired to every monitor imaginable, surrounded by machines, alone in his room while in the next room, looking through a glass partition, was a physician sitting at the console, reading the display and caring for the patient in this fashion. He was a physician removed physically and emotionally from the patient's care. I remember in medical school being told during my internal medicine rotation two specific things. The first was "talk to the patients, they will tell you what is wrong." The second was that "as much as 95% of all diagnoses are made on history; the other 5% are not made." To me, medicine and surgery have been a hands-on experience. We must interact at all levels, physical, emotional, and scientific.

It seems to me that in today's world we do tend to depersonalize. We will have an increasing ability to do so in the future as a result of the rapidly evolving technological advances. How often do we hear a patient referred to as "bed 403B" or "the patient with intestinal obstruction," for example? It has become one of my pet peeves. Patients have names. I believe we should use them. I ask how I would feel if I was referred to as "the heart attack in 415A." Even Hollywood has snipped at this. In a film about a doctor that was released in l991, the main character, an attending cardiac surgeon, castigates a resident while on rounds for referring to a patient by his medical diagnosis and not knowing his name. How often do we do this very thing? Is our future so depersonalized that we do not know our patients' names? Is our future so deeply immersed in fact and data that the individual we are treating becomes a nebulous, amorphous disease entity? Is that really where we are going, and if so, do we really want to go there?

It is easy to get lost in the scientific. We can determine the cause of the systemic inflammatory response, the programmed cell death called apoptosis, and the gene that causes defects or triggers cancer. We can begin engineering to change it or modify it in some way. We can get involved in all of this from afar, forgetting that why we are really here is for the patient. The nice thing about the future is our ability to help determine it. We can make a choice for our future. Do we want to go to an increasingly detached, depersonalized, scientifically based, dispassionate practice of medicine, or should we incorporate the personal, emotional aspects of what we do along with our increased knowledge and technology? Only we can decide if we are going to be at the bedside, with assistance of medical advances, or in another room treating the numbers we see on our console screens. My view is that both technology and caring can easily be combined.

Lastly, what can we leave behind? I clearly remember a previous Presidential address called "The Art of Mentoring." The point was clearly made that this involves more than the dissemination of knowledge. The latter is just teaching cold hard facts, given to students at all levels. It is certainly useful, necessary information that would be required to help them understand disease processes, therapies, and surgical procedures. The literature reviews, the research we do, and the passing on of information are clearly important. But as was pointed out, we can be like a parent or a grandparent to a child, allowing students to absorb not just specific fact but experience and learning from the mistakes we have made along the way in the hopes that they will not repeat them. Just as the parent tries to advise the child on life's journey, drawing from his or her own experience in the hopes of helping the child with direction, I believe we are obligated to pass on not just knowledge and fact but experience. We develop a process over the years called judgment. There is a surgical dictum that states, "judgment comes from experience, and experience comes from bad judgment." We are obligated to pass on our experiences to those behind us so that they will not repeat our errors, medically and surgically. But

to be a true mentor, in my opinion, one must also pass on to the next generation the highs and the lows and the emotions that are associated with our practice through the years. We must reiterate why we are here, share our vision that the future will be better still, but base this on our past.

If we can leave something behind, shouldn't it be a part of us? We should pass on to others our passion for what we do, our inquisitive nature, our firm footing in science, and our caring for our patients that has been our driving force. We should synthesize the lessons of our past and pass them on as well. If we can do this, then in effect we have achieved a form of immortality. For we will leave for the next generation of physicians the items that have been important to us. These items will become significant for them as well, and they will pass them on to the next generation, and so forth. We have the ability to incorporate the lessons of our past into the hope of the future. We need to continue to remain involved in all aspects of our patients' care, both physically and emotionally. Let us retain the awareness of these patients' needs, knowing that while doing this we may have our own emotions torn at times. Mentoring is being a guide and a friend and helping the student of medicine navigate through the maze of science and the trauma of some of our own emotions. We must explain that it is all right to be involved emotionally with our patients and encourage our students to question and seek answers. We must allay their own fears of the future with wisdom and caring, not only for them, but also for their patients. We must teach them to seek knowledge, do research, and become scientists, but never lose site of their purpose, which is to help people compassionately. After all, it is people who make the difference. It is who we are, who they are, and why all of us are here. We help people one at a time. However, if we can guide young physicians, and they do the same in turn, it is a legacy. Research becomes obsolete or historical, but humans evolve, adapt, change, and have the ability to fit ideas and ideals to the new environment. We help people in an expanding fashion, as each successive student of ours passes on to each successive group of their students, and so on, an idea of why we are all here. It can be what we leave behind. It can be a measure of immortality. This afternoon I have attempted to pass on a message that has been dear to me. Some of these ideas and many of the quotes are from my mentors. My hope is that I have enhanced the ideas a bit and brought them forward. I believe that they will continue to be handed down in the future, not because they are my singular thoughts, but because they are thoughts from those who came before me. Thoughts that still ring true.

I believe we need to reiterate our basic values and ideals, hand them to another generation of physicians, and encourage them to hand them down in turn. Do I believe I am old fashioned? Perhaps. But I believe passionately in what I have stated. I remind you of the title of this address: "Old Concepts in a New Millennium." This is a time of increasing complexity, increasing knowledge, a greater focus on the micro, and a quest for absolute answers. We have external pressures of decreasing time available, a changing health care focus, and increasing cost concerns. Yet with all of that we should remember now, as well as in the future, why we are here, how we got here, where we are going, and what we leave behind. All that is important to us. We should not now or in the future lose or forsake the art of medicine for the science.