Alfred R. Shands, Jr., Lecture: Our Humanitarian Orthopaedic Opportunity

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Good afternoon, my fellow humans! As I reviewed the career of Dr. Alfred R. Shands Jr. and perused a list of previous incumbents of this lectureship, I was filled with humility, awe, and inspiration. Dr. Shands was a visionary leader and a Past President of the American Orthopaedic Association who stressed the importance of basic science in the education of the orthopaedic surgeon.

I ask that you help me to achieve two formidable goals this afternoon. The first is to change your thinking about race and the medical profession. The second is to change what you do when you go back to your office “the first thing Monday morning.” Here, in this second item, lies Our Humanitarian Orthopaedic Opportunity!

In order to achieve these goals, I must engage you in some frank, even crusty, communications. The purpose of these communications is not to accuse, blame, stimulate guilt, or provoke denial. I speak in the spirit of friendship and collegiality. Call it “tough love” if you will. My ultimate intentions are the good of our patients, our profession, and our nation.

American biomedical science can be thought of as a beautiful and powerful fabric. This “fabric” has tremendous influence, exerts great leadership, and has made contributions throughout the world. Unfortunately, this fabric also has some blemishes. Together today, we will trace the very threads of the blemishes. We will see how long the threads are and how thoroughly they are woven into the fabric.

If any of our three daughters were here today, she would exclaim, at just about this time, “Get to the point, Dad!” So, I will.

Peer-reviewed medical journals confirm a substantial disparity in health care for minorities in America today. The best indicator of overall health care for a given population is the infant mortality rate. The rate for blacks is more than twice that of whites. Allow me to share with you just a few of a very long list of differences. African-Americans receive fewer cardiac catheterization studies, fewer angioplasties, fewer bypass surgeries, fewer kidney transplants, and fewer surgical procedures for lung cancer. In the orthopaedic realm, African-Americans receive fewer total joint replacements, fewer procedures for open reduction and internal fixation of femoral fractures, and less spine surgery (although some may question whether this last item represents a disparity). Two separate studies, one in Atlanta and the other in Los Angeles, showed that African-Americans and Hispanic-Americans presenting to an emergency room with a long-bone fracture are significantly less likely to receive pain medication than are whites. Another study showed that black and Hispanic patients received morphine equivalents significantly less frequently than did white patients following open reduction and internal fixation of limb fractures. In addition, pharmacies in predominantly nonwhite neighborhoods of New York City do not stock sufficient medications to treat patients with severe pain adequately.

Perhaps not surprisingly, African-Americans receive more hysterectomies, more amputations, and more bilateral orchiectomies. The National Center for Health Statistics in 1998 reported that the death rate for nine of the top ten causes of death in America is at least 1.5 times greater for blacks than for whites.

Professor Jack Geiger of the City University of New York Medical School reviewed 600 citations, many from the New England Journal of Medicine and the Journal of the American Medical Association. Dr. Geiger concluded that there is scientific evidence documenting disparities in the treatment of African-American and Hispanic-American patients that strongly suggests physician bias and stereotyping, however unconscious, as a cause. Are
Are you shocked by this conclusion? Are you shocked by this image (Fig. 1)? I am. The woman’s name was Laura Nelson, age thirty-five. She was hanged in 1911 from a bridge outside Okemah, Oklahoma, along with her fourteen-year-old son15. How can we understand these things? Have they any connection to Dr. Geiger’s observations? Can history help?

With the use of the history An American Health Dilemma by Dr. Michael Byrd and Dr. Linda Clayton16 and other sources, we can put Professor Geiger’s statement and this image into some understandable perspective.

Please join me in an episodic hopscotch through about 3500 years of history. The book by Byrd and Clayton is a scholarly and thoroughly documented work. The following narrative is not scholarly, but it should suffice to put some current medical realities into perspective. As we zigzag through this history, we will pick up and follow several threads, which are thoroughly woven into that excellent but blemished fabric of American Medicine. I am relying heavily on this history to change your thinking; it did mine.

Let us begin with the Greco-Roman experience, 1600 BC to AD 50016. Plato and Aristotle were the fathers of modern Western science. Unfortunately, the foundation for racial bias existed in the teachings of these great precursors of Western thought. Plato espoused the “great chain of being” theory wherein he opined that blacks were derived from apes and were inferior to Europeans (Fig. 2). Here begins a blemishing thread, which continues throughout our history.

Also, there was the work of Aristotle, Scala Naturae (the scale of nature), which included a ranking of his fellow humans. Low on this scale were slaves and nonwhites. Another blemishing thread. Aristotle considered Ethiopians a cross between a gorilla and man.

In 300 BC in Alexandria, Celsus, the Roman scholar-historian, wrote, in allusion to two Greek physicians: “Herophilos and Erasistratos . . . laid open men whilst still alive—criminals received out of prisons from the kings—and while these were still breathing, observed parts which beforehand nature had concealed.” Here is another blemishing thread for our fabric. The pattern of overutilization of the poor, the defenseless, the disenfranchised, and people of color for medical experimentation, teaching, and demonstrations is a part of our medical heritage. This is a dramatic foreshadowing of the famed Tuskegee Study.

Now, we are at AD 131. Allow me to share a quote from Galen, the physician, to the gladiators: “Ten specific attributes of the black man . . . frizzy hair, thin eyebrows, broad nostrils, thick lips, pointed teeth, smelly skin, black eyes, furrowed hands and feet, a long penis, and great merriment.”16 Galen continues: “That merriment dominates the black man . . . because of his defective brain, whence also the weakness of his intelligence.” Here are two blemishing threads, inferior intellect and the “double L”: lasciviousness and licentiousness. They mean the same, of course.

Carl Linneaus (1707 to 1778), well known for his binomial nomenclature, was a Swedish scientist and physician. In Systema Naturae, he designated Africans as lascivious, inferior, and apelike. He included some of the negative stereotyping presented by Galen16. Why did Systema Naturae sell so well? There were twelve publications. It influenced Thomas Jefferson, a man who believed in religion and democracy. Jefferson wrote in the Preamble of the Declaration of Independence: “We hold these
truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are life, liberty and the pursuit of happiness."

What a powerful and magnificent encapsulation of the very essence of American ideology! In his book, *An American Dilemma*, Gunnar Myrdal points out the fundamental disconnect between America’s glorious ideology and its practice of slavery, segregation, and discrimination. Our rich American creed is flawed by this dilemma. Consider our example of Thomas Jefferson: if you are Christian and you have basic democratic humane ideals, how do you reconcile your beliefs with owning slaves? You do not, you cannot, but you try. You try, by reading *Systema Naturae*, which tells you it is OK to have slaves because slaves are not quite human. Moreover, if you also attribute enough negative characteristics to them, they more or less deserve to be slaves. The United States and most of the Western World benefited substantially, either directly or indirectly, from the work of slaves. It is easy to see how a book that says, “Don’t feel bad; they are not quite human,” might well go through twelve editions.

Amid this historical hopscotch, there is a central phenomenon of pseudoscience. Pseudoscience embodied a variety of measurements or examination of body parts and dimensions by unlearned as well as learned scientists. Whenever differences between black and white people were found, they were taken to confirm attributions of inferiority to people of color. Phrenology and craniometry are examples of pseudosciences. The former involved reading bumps on the skull to reflect human character. The latter measured skull size to reflect intelligence. From this, it was inferred or stated that blacks had smaller brains and lower intelligence.

Measurement of facial angles was another form of pseudoscience. Greater angles were attributed to people of color and declared a sign of racial inferiority (Fig. 3).

A particularly interesting practice of pseudoscience is exemplified in the life of Saartjie Baartman, also known as the Hottentot Venus. This woman was taken from Cape Town to London in 1810 by a ship’s surgeon named Alexander Danlop. Beautiful by African standards, she was considered ugly or sensual by others. Great attention was given to her buttocks (steatopygia) and to her vagina (Hottentot apron) by a team of scientists led by Geoffrey Saint-Hilaire, Étienne, a renowned French zoologist. She was declared to be a lower form of life, inferior, sensual, and related to the ape. She was the subject of numerous paintings and cartoons. She was depicted in textbooks, presented in sideshows, and finally seen in museums. A model was made of her body and kept in the Musée de l’Homme in Paris.

Now let us look at what has been termed by Clayton and Byrd as the *slave health deficit* during the period of 1619 through 1861. The slave health deficit has three components: the roundup period, the middle passage, and the new world.

During the roundup period, slave wars were occurring on the African continent. There were long, tedious, and difficult marches to the coast from various inland areas. There was the mental shock of these realities, especially the inhumane and unhealthy conditions of the storage and sale of the slaves. Exposure to new diseases in this phase was considerable because the victims had been in small insular villages. Consequently, when they were put together with other villagers, their immunity was minimal. Combine all these
factors, and we can readily understand how the roundup component of the slave health deficit was associated with a 50% mortality rate.

Next comes the well-known middle passage, the transport of slaves across the Atlantic. Sharks were reported to be the fellow travelers of the slave ships. There was filth and extreme crowding. The slaves suffered from chain sores, friction sores, fights, beatings, accidents, mental anguish, and suicide. There were numerous diseases, the most salient one being amebic dysentery. Again, we doctors were “on the scene”; slave-ship surgeons received fees comparable with those of the captains. The mortality rate during the middle passage was 75%.

The third component of the slave health deficit was the New-World experience. Here, there was another cycle of exposure to new diseases, specifically influenza, smallpox, tuberculosis, and syphilis. The climate and environment were different from what the slaves were used to, and the living conditions were terrible. There was systematic, incidental, and accidental separation of families. There were policies that forbade the use of one’s native dialect or religion. The slaves were overworked, and there was considerable mental stress. The slaves were beaten, forced to breed, and raped. The slave diet was poor, and there was little medical care.

Consider this observation about the slave health deficit: a blemishing thread in our American medical fabric is that the health status of African-Americans has been linked to their political status. The unfortunate reality of that status is that 90% of the time that African-Americans have been in this country, they have not enjoyed full citizenship privileges; 65% of the time they were considered chattel, and 25% of the time they were subjected to legal segregation and discrimination.

Let us review a refreshingly bright spot in our narrative. Here are the ideas of “a lonely voice in the wilderness.” It is with a surgeon’s pride that I mention the father of modern surgery, Dr. John Hunter (1728 to 1793). He asserted that any conjecture that blacks might be inferior operated against treating them humanely. He wanted to in no way confirm or support any justification for treating them with prejudice.

There were two physicians who would be somewhat compromised candidates for humanitarian awards. Our first, Dr. Benjamin Rush (1745 to 1813) was a revered physician and a signatory to the Declaration of Independence. He espoused that the color of the Negro skin is due to congenital leprosy. This disease, said he, causes smelly skin, large lips, a flat nose, woolly hair, mor-
American population.\(^{11-23}\)

Between 1865 and 1872, immediately following the freeing of the slaves, the Freedmen’s Bureau was set up by the Union government to help prepare the newly freed slaves for a new life. The Bureau was somewhat helpful: doctors and clinics were provided, and black medical schools were formed. However, in late 1872, with the loss of the Freedmen’s Bureau, there was a crash in the health status of blacks. The so-called Negro medical ghetto, a network of underfunded hospitals with poor facilities and overworked physicians, was virtually all that was left. Homer G. Phillips Hospital in St. Louis was one of that group and where my father did his internship in the late 1920s.

Between 1932 and 1972, the infamous Tuskegee Study was carried out. In Macon County, Alabama, over 400 black men diagnosed with syphilis were kept untreated, without their consent, so as to study the course of the disease. The Bureau was somewhat helpful: doctors and clinics were provided, and black medical schools were formed. However, in late 1872, with the loss of the Freedmen’s Bureau, there was a crash in the health status of blacks. The so-called Negro medical ghetto, a network of underfunded hospitals with poor facilities and overworked physicians, was virtually all that was left. Homer G. Phillips Hospital in St. Louis was one of that group and where my father did his internship in the late 1920s.

During the Civil Rights movement, from 1965 to 1980, there was improvement in health care for black people. Hospitals became desegregated, community health centers were created, and affirmative action allowed substantially more blacks to be trained as physicians, pass their Board examinations, obtain their licenses, and provide much needed medical care.

In the 1980s, there was a re-trenchment during the Reagan/Bush era, which was followed in the 1990s by the failed Clinton health reform and the corporate takeover of health care. This brings us full circle to the present disparate scene described by Dr. Geiger on the basis of his review of 600 citations.\(^4\)

So here ends our historical hop; the roots, the threads, of current health-care disparities go back more than 3500 years. The threads of racial bias are seamlessly woven into the fabric of our culture and of our profession.

Why do we want to correct this unconscionable reality suffered by some of our fellow humans? Because we are a nation and a people with high humanitarian ideals. You have heard a quote from the Preamble of the Declaration of Independence. Listen to a part of our Pledge of Allegiance: “...one nation under God, indivisible, with liberty and justice for all.” Listen to a portion of the Gettysburg Address: “Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal.”

The preceding high humanitarian ideals are the most important reasons to correct the health-care disparities in our nation today. However, there are several other reasons, and these relate to enlightened self-interest.

The first item is overall national safety. In a less healthy portion of the population, there is almost always a residue of communicable diseases. Infectious diseases spread. For example, HIV is currently rampant in the black community, and that is no stereotype! It is a serious matter.\(^8\)

A second item of self-interest has to do with cost. A large portion of disparate care is crisis care, which is more expensive. In principle, it costs more to perform an amputation than to take care of an infected toenail. A study by Herman and Eastman showed that, in diabetics, early intervention with intensive treatment reduced the rate of lower-limb amputations by 43%. A study by Epstein et al. showed that crisis care in a group of impoverished patients with connective-tissue diseases was more expensive than regular care. The added cost is shared at some point by our entire health-care system.

A third item of self-interest requires some explanation. Memphis Slim hypothesized that with continued economic and communication globalization and with multiracial, multietnic, multireligious, and multinational marriages, the propensity for war will diminish. In other words, the bank you are burning may have your own money in it, or the church, synagogue, temple, or mosque you are bombing may have your own grandchild in it. According to this hypothesis, nations will no longer dominate or lead by military power.

The top nations in the future will, firstly, have been successful in the global marketplace, an achievement that requires a healthy workforce. Secondly, having been successful economically, the nations will have then made strategic use of resources so as to provide a good quality of life for its citizens. This hypothesis embodies the World Health Organization’s definition of health as not just an absence of sickness but physical, socioeconomic, mental, and spiritual well-being.

On the basis of a number of specific criteria, the World Health Organization ranks the national health of countries throughout the world. Those with the best health are Japan, Australia, France, Sweden, and Spain, in that order. One wealthy and prosperous nation is not among the top five. In the lower tiers, we have Israel (twenty-third), the United States (twenty-fourth), Cyprus (twenty-fifth), and—after skipping just a few—Cuba (thirty-third). Are you surprised? I was.

Take our rank of twenty-fourth in the year 2000, when our minority population, which constitutes 28% of our general population, suffers major health-care disparity. Project this to 2050, when it is predicted that 47% of our population will be what is now known as minority. If health-care disparity remains in this much larger minority group, where do you think the United States will stand in world health rankings by then? How successful will we look as a nation?

At this point, I trust that you are excited and enthusiastically asking what can be done? Before addressing this question, allow me to share some general thoughts. We, as physicians, can be societal leaders in facing racism clinically, not emotionally but rationally, objectively, and constructively. We have been educated to address cancer, amputations, paralysis, and death with strength, sensitivity, equanimity, and rational good judgment. I think that we can extend these skills to the management of racism. We do not generally face clinical problems with guilt, anger, denial, or rationalizations. We face...
them analytically and constructively. We can face racial problems in medicine the same way.

I have put before you some pretty nasty threads of historical reality, which are deeply woven into the very fabric of our national and medical heritage. This is not “your fault.” This is not “my fault.” This is not “our fault.” However, it is your responsibility, my responsibility, and our responsibility to do something about it. We cannot change history, but we can change the present, which will change the future.

Our Humanitarian Orthopaedic Opportunity is to eliminate disparities in the care of the musculoskeletal system. Let us do everything we can as orthopaedic surgeons in our “sphere of influence.” Here are some things we can do.

First of all, we can achieve more diversity in our profession1. There are several reasons why this will be enormously helpful. Memphis Slim tells us: “Diversity integrates the intellectual ghetto of ethnocentrism.” Diversity in the medical student body has been shown to have enhanced the culturally sensitive educational experience of students in the Harvard and University of California, San Francisco, medical schools2. Also, patients interact better with doctors of the same racial and/or ethnic group3. Finally, minority doctors are more likely to work in underserved areas4.

Second, we must make the challenging administrative and policy changes necessary to solve the financial, insurance, and other access problems, and we need to establish control systems to evaluate and monitor progress.

Third, we must recognize the usefulness of educating minority patients. This is not victim-blaming but a practical constructive suggestion. We need to remind minority patients that they can do something immediately to improve their health. In the arenas of economics, politics, and education, individual impact is quite modest. However, one’s own health can be improved, sometimes instantly, when appropriate guidance is offered. This is an opportunity for self-determination. We must teach minority patients coping and cooperating skills that will help them to work most effectively with their doctors. We also must teach them skills that will help them to “meet their caregivers halfway” across the “cultural bridges” that connect them with their doctors.

Fourth, we must teach all physicians to provide culturally competent care. We know that most care of minority patients is provided by majority doctors. To provide culturally competent care, the doctor has to know something about the patient’s culture and must possess the interpersonal skills to work effectively with that patient. Implicit in this is the elimination of conscious and unconscious bias against any patient. Memphis Slim observed, “The truly pernicious aspect of this situation is that these stereotypes and biases are so profoundly ingrained that they essentially come naturally.” A recent study by Chen et al. at Yale showed that disparate care was given, by black as well as by white doctors, to minority patients who had had a heart attack5. Does anyone still have doubts about the momentum for bias in our medical heritage?

As you recall, our second formidable goal was to have this audience do something different when you arrive at your offices “first thing Monday morning.” You are being asked to apply the “double F criterion” to each and every patient on Monday morning. The “double F criterion” is applied by asking yourself as you care for the patient: “Is this the way I would treat my friend or my family?” Do this, and we seize our Humanitarian Orthopaedic Opportunity to practice culturally competent care and make a tremendous contribution toward the elimination of health-care disparities.

In summary, health-care disparity for minorities in the United States today is a problem, which includes racial bias. That bias is intimately woven into the fabric of our medical culture and history, and it goes back more than 3500 years.

It is not our fault, but it is our responsibility to correct this unconscionable reality. The good reasons to fix this situation are based on high humanitarian ideals as well as enlightened self-interest.

I trust this presentation has achieved its goals. First, I hope you are thinking differently about issues of race and the medical profession. Second, I trust that, starting first thing Monday morning, you will apply the double F (Friends and Family) treatment criterion to all of your patients. Finally, I trust your speaker will successfully join you in seizing our Humanitarian Orthopaedic Opportunity!


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