Models from Other Disciplines: What Can We Learn from Them?

Friday, July 27, 2001
Afternoon Session

Professor Richard K. Neumann, Jr.: Good afternoon. I'm Richard Neumann from Hofstra Law School. As you know, it is possible and it frequently happens that someone will graduate from law school without having had any experience in the work of a lawyer other than to take the required legal writing course. No practitioner/teacher will have taught that particular person anything about how to do what lawyers do. And we were all horrified at Pam's suggestion in the morning at the possibility that you might be wheeled into an operating room and about to be opened up by a surgeon who informed you just outside, just before you took the anesthetic, that this was his first operation, or her first operation, although, the theory of how to do an operation had been clearly explained in medical school.

Of course, that's impossible. It is impossible to graduate from medical school or architecture school without having practiced in a supervised way a lot of the work that doctors and architects do. One of the distinguishing features of a medical school is its teaching hospital or teaching hospitals. We've come to accept that as a normal part of a medical education. The heart of an architect's education is working in a design studio. These two institutions, the design studio and the teaching hospital, may have many, many problems that people who are active in those two fields know a lot about. But to an outsider, to a person in legal education, they are impressive intellectual accomplishments—the fact that the teaching hospital as an institution has been created and exists, the same with the design studio.

In fact, two things will strike you as a legal educator when you hear what happens in these fields. One is the tremendous amount of student work in skills training that these two settings require. You can't graduate, you can't get a degree, in those fields without doing that work. Conversely, in legal education, a graduating student may have taken eighty-five to ninety credit hours and it is possible, it commonly happens, that that student will have earned only three to five hours of that total amount in a skills course.

The second thing that strikes me, perhaps even more, is the age of these institutions. The oldest requirement for work in a teaching hospital

that I was able to come across is embodied in the British Apothecary Act of 1815. You remember 1815, that was the year that Napoleon lost at Waterloo. Thomas Jefferson was still alive. In fact, most of the people who signed the Constitution and Declaration of Independence were still alive.

The teaching hospital as an institution began to take its modern form about 100 years ago. The design studio began to take its modern form at about the same time. By contrast, the law school clinic took its modern form in the 1960s and 1970s when the Ford Foundation poured money into clinical education. The law school simulation course took its modern form, in fact, it was created from scratch in the 1970s by people like Joe Harbaugh and Phil Schrag. The legal writing course in its modern form came to be in the '70s and the early '80s.

We are kind of new at this. And to help us understand what the profession, the two fields who have much more experience, have been doing we have with us Dean Tom Fisher of the University of Minnesota College of Architecture and Landscape Architecture. And Professor Dan Hinshaw of the University of Michigan Medical School.

We will begin with Dean Fisher. He is the co-editor of *Architecture Research Quarterly* and was an editor for some time at *Progressive Architecture*. He's a prolific scholar. He cares a great deal about writing and writing style, and his writing is a pleasure to read. Dean Fisher.

Dean Thomas R. Fisher: Thank you, Richard. I thought what I would do is recount a bit of the history that our three disciplines share, and then talk about some of the differences between what we do in architecture and what you do in law, then talk about our educational methods, with a particular emphasis on integration of skills teaching, and about our accreditation process.

In many respects, the modern form of our professions arose out of the efforts of Andrew Jackson, who, when president in the 1830s, set in motion what sociologists have called the Age of Deprofessionalization. Jackson got into office on a platform that professions were elites and that the marketplace was the best judge of merit. In fact, there were efforts to delicense and to discourage the professions. And in some ways, those same sentiments exist in our own time, where the marketplace is once again viewed as the best judge of value. Some have even argued that we are in our own Age of Deprofessionalization.

But the professions—all of our professions: medicine, law, and architecture—responded to this populous free-market era by forming professional associations. The American Medical Association was founded in 1848, the American Institute of Architects in 1857, and the American Bar Association in 1868. These were efforts on the part of our professions to re-establish control over our practices. From the 1880s through the 1920s, these associations swung public opinion around,

convincing state legislatures to enact, or re-enact, licensure laws that became the basis for the professions as we know them.

This re-establishment of the professions came after decades, from the 1830s through the Civil War, of the public suffering from quack doctors, crackpot lawyers, and carpenter architects. By the end of the Civil War, the public and politicians needed relatively little convincing that what had been gained in terms of efficiency in an unregulated free market had been lost in terms of public well-being.

So, the professions, all three of our professions, recognized our chance, emphasizing our commitment to the public's health, safety, and welfare, and recognizing that the monopoly in the marketplace that licensure gives all of us also brings with it the onus that we advance the state of knowledge in our fields for the public good.

The key to this was the rise of professional schools. Part of the agreement, the contract, with legislatures to enact licensure laws, was that the old apprenticeship method—the fairly informal ways in which doctors, lawyers, and architects had been educated in the Eighteenth and early Nineteenth Centuries—would be discouraged and professional schools would be established. This was led by many of the newly formed state land-grant universities founded after the Morrill Act went into effect in 1865 and also by some of the major research universities, like John Hopkins, MIT, and Harvard.

The professional associations had considerable influence over the curriculum in these early professional programs, and a lot of the early faculty were drawn from either current or former practitioners. When you look at what was discussed in the Nineteenth Century, this use of practitioner/teachers represented a major intrusion into the territory of the academic guilds. One of the things that differentiates our three disciplines is that law was, in many ways, more familiar to the traditional academics, in that lawyers read books and write scholarly papers. Law was a field that the academics understood much better than they did medicine and architecture, whose practitioners did manual things, such as surgery or drawing things. Because architecture and medicine were not well understood, they also had much less pressure to conform to academic traditions than law did.

The professions also worked out a system in which the schools would focus on areas such as history, theory, and methods, and the profession would educate interns about such matters as managing firms, managing clients, and the like.

But if those are some of our similarities, I think there are also striking differences among our three professions. One has to do with the tradition out of which our educational methods arose. In architecture, the early founders of the architecture schools were trained at a school in Paris called the Ecole des Beaux Arts. This was a school that had been founded by the King of France to train architects who would stay in Paris

and design all of the government buildings from Paris and send the plans out to the hinterlands, where some anonymous contractors and users would build and occupy them. Practitioners in Paris taught in the school in what was called an *atelier*, a kind of a studio where students would come and work side by side with the practitioner and learn how to do things in a very integrated way. They would learn how to design, and they would learn about technology and history, and they would learn how to write and how to speak in public. This studio system was brought from France to the United States and became the basis for architectural education at MIT, the first architecture school, and at Cornell, which was number two.

It's still the case today. The design studio is the core of the architectural curriculum and integrates what students learn in what we call the support courses, an unfortunate term, which includes history, theory, technology, professional practice, and the like. These courses are also skill oriented. A lot of writing, for example, is required in history and theory classes. Negotiating skills are discussed and practiced in our practice courses. But it's really the studio where we simulate practice, where students will work on hypothetical or real projects, sometimes for real clients on real sites. Often an architect teaches the class, overseeing the work and making sure that it meets the needs of the clients, code requirements, engineering demands, as well as requiring students to develop a theoretical position, to learn how to write about it and how to speak about it in a compelling way in front of what we call a jury.

We have juries at the end of every studio, which often consist of faculty and practitioners, and sometimes the general public, who will assemble around a presentation by a student. The student has to make his or her argument about what he or she was trying to accomplish and how he or she did it. And then, of course, there is a lot of back and forth question and answer. So, skills in architecture are not taught as separate activities, but as part of an integrated process.

I think it's also important to mention that there are a number of schools—Minnesota, Columbia, and Yale are three noteworthy ones—where as much as two-thirds of the faculty are practitioners. This creates interesting dilemmas in institutions that don't really understand why we are so heavily dependent on adjuncts. It's also remarkable that practitioners will teach studios that last twelve hours each week: four hours, three days a week—Monday, Wednesday, and Friday afternoons. At Minnesota, we have some forty-five practitioners devoting that amount of time every week to come to our school and teach in our studio. It is an incredible time commitment on the part of practitioners; it is also part of the control that the profession has had over architectural education and something that distinguishes our education from yours.

The architecture schools, though, are still under pressure to teach more skills than we are currently doing. For example, the profession is always wanting us to teach more computer skills. And many of our

students, like many of yours, are extremely computer literate, but there's often a disagreement about which computer skills to teach. The faculty want to teach the most cutting-edge software, and the practitioners often want us to teach the things that are most useful inside the office.

There's also pressure on the architectural schools to become more academic, more scholarly. This is coming from the institutions we're in. In the last decade or so, there's been a kind of push and pull between the profession and the discipline over the nature of our discipline. The American Institute of Architects recently put out what it calls the AIM Report, which takes aim at the schools. It's an effort by the practitioners to reassert their control and authority over architectural education because of a strong sense of it slipping away, of academics becoming too academic. Those are two of the strains we have.

A third strain has cropped up between the schools and the profession, having to do with the time and fee pressures that architects are now under. The old agreement had the schools teaching basic skills and design knowledge, history, theory, technology, and practice, and had firms teaching business-oriented skills during an internship period of three years before a student could sit for the architectural licensing exam. There is a very regulated process called the intern development process that every student, every graduate has to go through.

Now firms are realizing that they don't have the time to be educating interns. They want graduates to come out of school ready to take clients, knowing everything they need to design buildings. The schools are, of course, saying that there are only so many hours in the day. And, in fact, what's happened is that there has been a lot of downloading into the schools of things that the profession used to take responsibility for, which has led to a lot of problems with overwork by our students. The infamous all-nighter by architecture students has really become a problem, with a number of students dying in automobile accidents after being up for two or three days in a row. Pressures are being brought to bear both by the academic side to be more academic and scholarly and by the profession trying to download as much skills training as possible into the schools. Faculty have resisted what they see as the vocational orientation of practitioners, while there has been a new assertion of the need for research that is of use to practitioners.

Architecture schools driven by the profession have seen their role as preparing people to become architects. Scholarship and research are not a priority. And yet, as I said earlier, it's a priority from the university's perspective. An issue that we need to address as a profession is how can we make our research activities more relevant to practitioners. This involves developing a knowledge cycle whereby faculty conduct research based on the problems practitioners are encountering, so that the research is not an academic exercise. We have a long way to go in all of that.

With that background on some of the tensions that exist, I thought I would now go through our accreditation process and show how all of this has affected the way in which we accredit schools. One of the striking differences between our two accreditation processes is that architecture's is completely open and public. At the very last hour of the visiting team's time at a school, the team members have an all-school meeting in which all of their findings are reported to the faculty, community members, students, and university administrators. There is a reason why that is so.

Our typical accreditation team consists of five people, each representing one of the five components to our profession and discipline. There is the AIA, the professional organization, which contributes a practitioner. There is the ACSA, which is the Association of Collegiate Schools of Architecture, which contributes a faculty member to every accreditation team. There is the NCARB, which is the National Council of Architectural Registration Boards. It usually contributes a practitioner to the accreditation team. There is the student chapter of the AIA, which contributes a student. And then finally there is the NAAB, the National Architectural Accreditation Board, whose member is almost always an educator.

As a result of our five-person teams—there are typically two practitioners, two faculty, and one student—faculty are outnumbered, reflecting the clear skew in our field of the profession very much concerned about controlling what goes on in education. It's also evident in the criteria that the visiting teams look at.

For example, the criteria discuss five perspectives that need to be addressed in every visiting team report. One perspective addresses architectural education in the academic context: the relationship of the architecture school to the rest of the university. How is it contributing to the intellectual life, social life of the university? There is no mention about the status of faculty or what the actual educational program is like. It's very much about the relationship of the school to the institution.

A second perspective focuses on architectural education for students and this is, again, written in a way that is very much oriented toward asking what exposure are the students getting to practice and what kinds of practice-oriented skills are they learning while at school. So, even though it's about student life, it's very much written from a practitioner point of view.

A third perspective addresses architectural education and registration. Again, it's very focused on what skills are being taught so that students can take the exam. A fourth perspective, architectural education and practice, looks at the relationship of the profession to the school, asking if students are learning about how to deal with clients, about how to deal with the public, and different roles in practice.

The last perspective, architectural education in society, also addresses how students are taught to deal with various stakeholders, about

professional ethics, and things of that sort. Again, it's striking how little emphasis there is on scholarship or research, almost no mention of faculty conditions, and a large focus on professional skills.

These five perspectives are part of twelve conditions that have to be met. Consider, for example, the social equity condition. It's actually very much focused on a caring and supportive educational environment. It's very student oriented.

There is a requirement that there be exclusive studio space for every full-time student. We're required to provide a piece of real estate in our schools for every one of our students. That is their desk that they have control over for the entire year. And in schools such as mine, with 700 students, that's a lot of real estate that I have to dedicate to students. Explaining that to provosts is always a challenge, and it comes out of the French atelier model.

Adequacy of the library, adequacy of institutional support, and administrative structure all are issues that are probably fairly common in all of our accreditation processes. There are, in these twelve conditions, a couple of references to faculty, asking if there is diversity and equity of faculty appointments and a concern that faculty not have burdensome teaching loads so that they can enhance their professional development.

What I find interesting about this is that when the conditions discuss the faculty, it's only about the faculty in terms of professional development. It's not about scholarship. Again, the profession has so dominated our educational system that it associates with faculty as fellow professionals.

This sense of alienation from the academic world has long been a tradition. In fact, as recently as seven years ago, one of the leading writers in the profession, Robert Gutman, called for a national withdrawal of all architecture schools from the universities. He said that as the universities put more and more pressure on the architectural schools to become more academic, the only solution for the profession is to withdraw the schools and to run them independently. It didn't go anywhere, but I thought it was fascinating that there would be this kind of an effort still going on. And, again, I think it shows the depth of the suspicion in the profession toward the academic world.

Finally, we have thirty-seven areas that are reviewed as part of the accreditation process. Interestingly enough, when you review these, skills come first. There's a whole list of skills that are judged: verbal, written, graphic, research, critical thinking, design, and collaboration. The very first set of criteria are about how skills-oriented is the education. Then come people skills. There are a number of them related to understanding human behavior, cultural differences. The next set of criteria has to do with history, teaching of Western, non-Western history of architecture, regional building traditions, use of precedent.

Our profession has tended to waiver between thinking of itself as a science—a technology-oriented profession—and an art—a humanities-oriented profession. We've gone through periods where we emulate medicine and then we've gone through periods where we emulate law. We happen to be in a period right now where we're very much in emulation of law, maybe for better or worse. There is a great deal of emphasis now in architecture schools on studying precedent and doing precedent-related research as the basis for your argument.

There are criteria related to technology, learning about structures, engineering, life-safety systems. There's a whole set of criteria related to law, legal responsibilities, code compliance, legal context, contracts, ethics. There are some criteria, although not enough as far as some practitioners are concerned, about business and finance. We teach building economics, cost control, firm management, organization of offices, and leadership skills. And then, finally, at the very end is the criteria about design, which is curious. It would look as if it's the least important, but in the end, from my experience, it's probably the most important area that the visiting teams look at, because of this understanding that all of these other skills have to somehow be integrated in this studio environment.

After the review of the curriculum and student work, the visiting team meets not only with the faculty and administrators, but also with the community and the students. The visit ends, as I mentioned earlier, with an all-school meeting, where the findings are made public and the recommendations are then delivered to the Dean.

I think that gives you some sense of where we are as a profession, and I really look forward to the discussion we might have together afterwards. Thank you.

Professor Neumann: Professor Dan Hinshaw is a former Assistant Dean at the University of Michigan Medical School and formerly Chief of Staff at the Ann Arbor Veterans Administration Hospital, which is a teaching hospital affiliated with the medical school. His specialty is surgery, although lately he's been moving over into what's called palliative care, which I think he can explain much better than I can. And he's also a prolific scholar.

Dr. Daniel B. Hinshaw: Professor Lysaght, Professor Neumann, members and guests. Thank you for the opportunity to share some observations regarding medical education as you consider potential reforms within the process of legal education.

My presentation will be focused in three areas. First, I will briefly review some of the major currents affecting medical education over the last century and potential directions for the future. Second, I will try to give you a feeling for the current structure of the medical school

curriculum, and how theory and practice are blended within the experiences of a medical student. Third, and finally, I will ask a question central to the whole endeavor of educating physicians, lawyers, or architects—what kind of a professional does society need or want?

At the turn of the Twentieth Century, most medical schools were proprietary institutions, typically not part of universities, thus very little scholarly activity was present. Little concern was focused on the educational experience of the medical students. In fact, the students were primarily there to provide services to the attending physicians and the teaching hospitals where they worked to help generate profit. There were no standards or consistent curriculum. Examinations were not always required. Thus, medical education at the turn of the Twentieth Century, in 1900, was typically not much more than an apprenticeship in a community hospital.

Fortunately, something very dramatic happened early in the Twentieth Century. The medical profession owes a great debt to a man who was not a physician named Abraham Flexner. He was commissioned by the Carnegie Foundation to review medical education. He came out with a report that in effect created what was called the Flexnerian Revolution in 1910.

Flexner made several key recommendations after surveying the nation's medical schools.[1] Medical schools should be affiliated with universities. Medical school faculty should engage in scholarly activity (e.g., scientific research). The medical school curriculum must be standardized. There must be a standard product that graduates from a medical school. Examinations must be a part of the medical student experience and should serve as one means of evaluating their knowledge and learning. Finally, periodic evaluation in the form of accreditation of medical schools should occur.

National accreditation didn't actually take place until 1937 when the Liaison Committee for Medical Education was formed jointly by the American Medical Association and Association of American Medical Colleges.

What was the impact of Flexner's report? The number of medical schools dropped from 159 in 1900 to less than 130 by 1950. Currently, there are 124 medical schools that grant the M.D. In general terms, medical education and medical schools improved dramatically. Medical schools became hospital-based and frequently had their own hospital. There was an increasing focus on research with a world-view shaped and dominated by the biomedical sciences relevant to medicine.

Schools of Public Health, unfortunately, became separated from medical schools, leading to a disease-focused approach in medical

1. H. T. Debas, *Medical Education and Practice: End of Century Reflections*, Arch. Surg. 135:1096-1100 (2000).

education and practice, with a resultant neglect of emphasis on community health and prevention of disease.

The disease focus in medical education also led to a great development of specialty training, to the detriment of the generalist. Unfortunately, this fascination with disease as an end in itself has helped to alienate the public from the profession. The patient often wonders whether his or her physician is still interested in him or her as a person.

Three eras can be mapped out in Twentieth Century medical education. The first occurred between the two great wars, where there was a great focus on teaching. This was the time of the development of the great clinics by the Mayo brothers, the Cleveland Clinic, etc. It was the era of the consummate clinician, great history taker, and physical diagnostician—some of whom were very interesting and eccentric individuals.

The second era was between the end of World War II and the Great Society legislation in the mid-1960s. A key event was the establishment of the National Institutes of Health. Its extramural programs stimulated the dramatic growth of medical schools as research institutions. This has resulted in American preeminence in biomedical research.

The third era, from which we are emerging, began after 1965 when the poor and elderly via Medicaid and Medicare became paying patients. As a result, clinical practice became the dominant focus of academic health centers. Clinical faculties grew explosively and most medical schools became quite dependent on practice income. I was surprised to find out in the annual budget presentation earlier this week at our medical school that last year was the first year in many years where our research funding outstripped (just barely outstripped) our clinical funding from practice. And that's at a "research university."

There has been a symbiosis between medical schools and teaching hospitals. Several elements make up this symbiosis. There is an inherent conflict between educational need and the public interest. Medical students need to be exposed under controlled conditions to educational material (e.g., patients), but patients (particularly paying patients) want to receive care from the most experienced professionals and certainly not students. Thus, an alliance of sorts formed between the poor and medical education. One that the poor didn't necessarily have a voice in, but it has happened.

With the "boom times" that came after the introduction of Medicare and Medicaid, teaching hospitals became profitable, and medical school faculties expanded. Early on, there was relatively little tension within the symbiotic relationship between medical schools and teaching. However, as the cost of health care rose, which particularly became evident as major corporations (e.g., the auto industry, etc.) had increasing medical costs for their employees built into their products, managed care by the early 1990s was perceived to be a potential solution to contain cost. Tension rose

over the conflicts in mission. Academic health centers are big business. Efficiency, productivity, "assembly line" medicine, became critical for financial viability. But this was in direct conflict with the teaching and research mission of medical schools.

Recently, it has been noted that there has been an inverse relationship between managed care penetration in a particular market and NIH funding awarded to investigators in medical schools in the same geographic region. Increased production pressures have led to decreases in research with the potential for the future "dumbing down" of academic medicine, or the Flexner Revolution in reverse. Managed care organizations have even experimented with buying university hospitals and/or medical schools.

Does this trend herald a return to pre-Flexner conditions in American medical education and practice? What are some of the major influences on the future of medical education? Managed care is still here. If the current trends continue, the future viability of the academic health center will be in question. On a more positive note, information technology has had a dramatic impact through the Internet on disseminating medical information for the purpose of research and education. Its impact on educating the consumer of medical care will also be felt in medical practice and education and cannot be underestimated.

The genetics revolution, which has come with the human genome project (which is nearing its completion), will give way to the next tier, which is referred to as "prodiomics"—the study of complex biological systems focused on understanding how the proteins coded for biogenome actually interact functionally in health and disease. This has the theoretical potential for linking the basic science of medicine, that is the theory, with clinical care or practice in ways previously beyond our conception.

It will all cost a lot of money. Is the American public willing to pay for it? Billions of dollars are spent each year now on unconventional forms of complementary or alternative medicine, which may be signaling to those of us who are in the conventional medical stream that the public is not entirely happy with what we provide.

What is the shape of the medical school curriculum? The good news is that Abraham Flexner won. Standardization is extremely important. Every practitioner should come from a common educational foundation. After listening to one of the sessions this morning, the thought came to me that perhaps one of the ways to assess your success in training your professionals is to ask the question, "What is the quality and level of professionalism in the practice of the bottom quarter of your graduates?" For medicine, if they're not safe and competent, then we're potentially endangering the public. It's of critical concern for us to have a high degree of standardization.

The medical curriculum is filled with many required courses, both in the basic sciences and the clinical clerkships. There are relatively few electives. The elective courses in medicine are primarily in the last year and are directed at providing medical students with an opportunity to better define what specialization track they may wish to pursue after graduation. The curriculum is approximately equally divided between theory (e.g., basic sciences) and practice (e.g., clinical clerkships) during the four years.

Some of my specific comments relate to the University of Michigan, but, in general, this pattern is characteristic of all medical schools in this country. The first two years are primarily focused on the basic sciences relevant to medicine. However, within that period of time most medical schools will have a course or courses in which the student is introduced to the clinical realm. Specifically, they start to learn about physical diagnosis, the encounter with the patient, psychosocial issues, medical ethics, etc.

By the second year, two types of educational models are employed. In the more traditional approach, specific courses by discipline (e.g., pathology, physiology, etc.) are presented. The alternative is a more organ system-based approach in which all of the physiological, anatomic, and pathological elements related to a given functional system (e.g., the cardiovascular system, the digestive system, etc.) are integrated together. Some discussion occurred this morning, in an earlier session about problem-based approaches to teaching. The second, organ system-based approach becomes an opportunity to integrate the process of thinking about clinical problems at all levels, first at the basic science level all the way up through the practical encounter with the patient, who often may present with a very muddy, complex picture.

By the end of the second year of the medical curriculum, medical students are required to pass the U.S. Medical Licensure Exam Step I, which covers the basic sciences, before they can progress into the clinical years.

The third year is uniform for all students, although the order in which they rotate through the different experiences may vary. It's a process of total immersion. Every student is experiencing some clinical experience that the others will also experience at some point during that year. The clinical rotations vary from four to twelve weeks in duration in such areas as family medicine, internal medicine, neurology, obstetrics/gynecology, pediatrics, psychiatry, and surgery. These are the core clinical experiences. These students are thrown in with people who are practicing those specialties to learn about them. They also get some didactic lectures during the week, but their primary responsibility is to start to learn something about the direct care of patients.

Before finishing the fourth year, the students must take and pass the second step of the U.S. Medical Licensure Exam. In addition (at the

University of Michigan), prior to starting the fourth year they have to pass a test called the Comprehensive Clinical Assessment (CCA). The CCA is our school's version of an objective structured clinical examination, or OSCE. About half the medical schools in the country have OSCE-type examinations. The rationale for this type of examination is that there are certain skill sets and characteristics of the physician in training that cannot be evaluated effectively through an objective-type written exam, such as the USMLE.

The test consists of thirteen to fourteen stations in which students encounter real and simulated patients. Simulated patients are individuals who act out a particular complaint or problem. The students must demonstrate competent clinical skills at each station in interviewing, physical diagnosis, and demonstrating a reasonable bedside manner. Their integration of all the knowledge that they've accumulated has to be demonstrated in a way that's acceptable in terms of their encounter with another human being. They have to pass this exam to graduate.

The fourth-year curriculum typically has more flexibility in terms of electives. Even with that increased flexibility, most schools still require what is known as a subinternship. The subinternship is meant to be a foretaste of their first year out of medical school, during which the students take on more direct responsibility for the care of patients. Also, an intensive care experience is part of the fourth year. In our school, a course is offered in the fourth year in which the prior basic science work (theory) is integrated with the clinical experience that they've had.

What happens in medical education beyond medical school? Typically, a one-year internship after graduating from medical school and a passing grade on Step III of the U.S. Medical Licensure Exam can make one eligible for medical licensure in most states. In reality, licensure alone will not lead to full independence as a practicing physician. Most medicine is practiced in settings such as hospitals or managed care organizations, which have credentialing requirements that usually dictate the need for specialty training and eventual certification by a specialty board. Indeed, almost all of the specialty boards have a re-certification process. Each aging physician must look forward to continuing his or her own education and being periodically re-evaluated, which is probably a good thing.

Thus, to be fully independent as a physician, for practical purposes, requires a minimum of three years of postgraduate training after medical school and in some instances, such as the subspecialties of surgery, may exceed ten years.

What kind of physician does society need or want? If current trends continue, training the physician of the future will cost a lot of money. And yet, many billions of dollars a year are spent outside the very medical system that supports the education of these future physicians.

A prophetic paper was written almost twenty-five years ago by George Engel, a professor of medicine and psychiatry at the University of Rochester, in which he defined the crisis that many of us in academic medicine recognize is plaguing our profession.[2] He defined late Twentieth Century medicine at that time as *biomedicine*. What he meant by the term biomedicine is that medicine has submitted to essentially a reductionistic approach to the discipline wherein all illness has become disease that has specific biologic and ultimately molecular causation. That which does not fit the model (e.g., psychological, emotional, or social concerns) is excluded from the model. Such an approach can lead to a mind/body dualism. With the mind/body dualism in place, the anatomic approach to illness helps create the idea of the body as a machine that breaks down. The physician's responsibility is to fix the machine. A physician, although highly trained, may become nothing more than a highly skilled technician, thus missing the mark of medicine as something more than applied science or technology—medicine as a vocation. This is a reflection of a shift in the goals of medicine that has occurred over the last few centuries from medicine as a caring profession or vocation to that of a profession focused on cure.

Cure has been defined as "the eradication of the cause of an illness or disease, . . . the radical interruption and reversal of the natural history of the disorder"[3]—so that "treatment is directed toward the underlying cause of an illness rather than its outward manifestations." In other words, the symptom that drives one to seek health care becomes secondary in importance to pursuing the underlying cause.

The curative approach views patients in terms of their component parts or "repositories for disease," which can lead to suffering. "Where the only goal is cure, facts become differentiated from feelings and the body becomes dissociated from the mind." Once a diagnosis is made, instead of determining the patient's goals of care, the curative approach demands that diseases be treated.

The caring tradition within medicine focuses on a person and the relief of that person's suffering, including control of symptoms and, whenever possible, restoration of function, regardless of whether a cure is possible. Caring does not depend so much on complete medical knowledge, but more on a relationship. Caring takes time and is often at odds with the demands for efficiency and rapid patient turnover of the acute care setting. At the heart of caring for the sick is relief of their suffering.

To quote a recent essay on medicine as a therapeutic organization, "The greatest challenge facing the academic health center community is to

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2. G. L. Engel, *The Need for a New Medical Model: A Challenge for Biomedicine*, Science 196:129-136 (1977).

3. E. D. Pellegrino & D. C. Thomasma, *Helping and Healing* 27 (Georgetown U. Press 1997).

restore the marriage between humanistic concerns and scientific and technical excellence in healthcare delivery practices."[4]

Finally, the challenge for medicine, and perhaps for these other professions, can all be summed up in one word, and that word is *empathy*. Can we teach empathy to our students? Can we teach empathy for the suffering of our patients? Can we teach empathy for the fear and anxiety of our clients? Thank you.

Professor Neumann: Questions for either or both of our panelists? Or comments?

Audience Question: How can we better bring empathy into the educational experience for lawyers?

Dr. Hinshaw: We rarely think of encountering a client or a patient as encountering another person in need, a person who might be us if the situation was reversed. And yet, because we don't have an opportunity to pursue our professions that way in terms of service, I think there's a strong tendency towards "burnout."

There was a comment made in the morning plenary lecture about listening being an important part of the training of professionals. It's interesting that the ancient Greek word for listening, or to listen, has a secondary implicit meaning, which is to listen in order to understand as well as to obey. Inherent within the meaning of the word, at least in antiquity, was this sense of service. I think that meaning has been lost. Service is at the very heart of our professions. How can we wed this last sense of service with our academic interests? We have a great need to kind of revitalize this altruistic impulse in our professions.

Dean Fisher: If I might just add a bit on that. We talk a lot in architecture about the public good. I think we have a lot to learn about empathy ourselves, because we still don't do a very good job listening to ourselves, but we do have a model in the profession of trying to respond to the public good. And I think one of the things that our profession struggles with is that we are probably more empathetic than our own good in that we tend to use up more time on projects than we should. Architects are always struggling with compensation problems as a result. Rarely anymore do we work on an hourly rate. We typically work on fixed fees. Architects continue on with one more meeting with a client and just try to do a little bit better. As a result, we're always running out of money. So empathy has its other limits, too.

Audience Question: How do your professions separate the business aspects of the profession from its service aspects?

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4. R. J. Bulgar, *The Quest for the Therapeutic Organization*, JAMA 283:2431-2433 (2000).

Dean Fisher: Well, we don't do a very good job of it, and doing it is a way to make a very good living. Again, I think that there is a strong drive in many architecture students, as well as the faculty, toward a kind of idealism, a social idealism. This, of course, comes and goes. It was obviously much stronger in the '60s, and I have seen a resurgence in this sort of social idealism among students in the last five, maybe ten, years. And there is very much a sense that people go into architecture not to become rich, but to enhance the public good, the quality of life.

I think one of the discussions that we've been having in our discipline is about the fact that all of our professions are vulnerable if we're viewed by the public as essentially akin to businesses. There are a number of sociologists of the professions who have argued that part of the social contract in the Nineteenth Century was that we were a ballast or a balance to private interests, that we were to look after the public good, and thus earn the monopoly in the marketplace that our licenses give us. Once we are perceived by the public to be too self-interested and losing that sense of the public good, we actually become vulnerable.

In our field, for example, there have been various attacks on licensing laws. And, in fact, in England it went very far. It got into Parliament where they were going to delicense all architects. There was a view that if they are just businesses, why should we give them a monopoly? I think all our professions are on a very fragile ground right now, where I think we have to really re-learn our calling, re-gaining the reason why we're professions to begin with.

Dr. Hinshaw: I really resonate with what's just been said. I think that part of the issue depends on giving people a real sense of value, in terms of the service that is provided them. Perhaps another way of describing it is in the context of a therapeutic encounter. I would submit that such an encounter happens with each of these professions when service is offered to a person in need. Even if there are production pressures with limited time to spend with a client or patient, it is still possible for people to create a therapeutic encounter. It is critical to give the patient or client the sense that your full attention is theirs and that there is nothing else that you're concerned about other than their need.

One of my mentors in my recent sabbatical in palliative medicine said one of the most important tools for a physician who cares for the dying is a chair. It means you must sit down, get at eye level with the person, and give them your full attention, with your body language reassuring them that you're not about to rush off. Even if it may be a short encounter, there is a way to make that encounter seem infinite if the patient or client really senses that you care about them. It must represent part of an ongoing relationship of trust.

Even if the litigation that you're trying to move forward for them is unsuccessful, if a relationship of trust has developed, there is the potential

that they may gain something beyond the apparent outcome they sought when they first came for help. It may be hard for them to define, but it may come out as "I like that person who helped me." "I like that lawyer or I trusted him or her." A type of healing may occur as a result (or a by-product) of the development of a relationship of trust.

Audience Question: (Inaudible)

Dr. Hinshaw: In a discussion group this morning, a comment was made that most individuals who join law school faculties don't like to practice their profession. I would suggest that this statement is worthy of some reflection. If you could come to a real understanding of why you don't like to practice your profession, you may come to the heart of what you need to do to fix it.

One of the interesting differences between academic law and academic medicine relates to the caste system. The medical school equivalent of the legal Brahmin, the role that I aspired to when I joined a medical school faculty, is to be a "triple threat." A triple threat is a faculty member who has not only mastered the theory and science of medicine (as a successful published investigator), but has also mastered the practice of medicine (both as a highly competent clinician and teacher). Currently, there has been much discussion in academic medicine about the viability of the triple threat concept. It may no longer be a realistic goal in the era of managed care. Although I'm not necessarily advocating the triple threat concept for law schools, the notion that there are these different but equally important facets to our profession, and that they are particularly valued when seen in the same individual, may be a useful concept as you contemplate the reform of legal education.

Dean Fisher: I would answer the question a little differently. It seems to me that we are in a new phase of skepticism about professionalism. HMOs and fee bidding are examples of that. These pressures that you talk about are really marketplace pressures. I think it places demands on all of the professions to re-discover and re-assert the value we provide to society that is apart from the marketplace. And I think we are confused about that. All of us, of course, have to run businesses, run the practice as a business, but we are not businesses and the more we end up looking like businesses and are perceived by the public as mainly interested in profit, we are in trouble. Those marketplace pressures will continue to be applied to us.

I think it is a re-discovering of what professionalism is akin to what happened at the end of the Civil War when our professional associations were founded.

Dr. Hinshaw: I would like to follow up on that comment. This is purely from an outsider's perspective. The State of Michigan has been fortunate in that its managed care penetration is much lower than the State of Minnesota. We have felt great pity for our many colleagues we have at the University of Minnesota Medical School during their time of being under siege from the brutal economic warfare of managed care.

Medical school faculty in academic health centers still have a great ambivalence about dealing with the business aspect of their world. I used to do that kind of work, and I don't particularly like it, though it is a necessary evil.

Audience Question: It seems that there are castes in your professional schools, just as there are in law schools.

Dean Fisher: Well, that's right. And the practitioners have been the Brahmins, and then there are the academics who teach design-oriented courses, and then the very lowest level are the academic faculty who teach support courses, like technology and things that you get your hands dirty with. So, there are those kinds of hierarchy.

Of course, in architecture it creates tremendous tension because if the Brahmins are the adjuncts and the university is basically about full-time faculty, you can imagine the tensions that we deal with. Every school has its own ways of trying to minimize it. In fact, one of my departments is developing a big shared government structure to bring the adjuncts and the full-time faculty on more of an even keel dealing with this very tension.

Dr. Hinshaw: I found the discussion about the caste system very interesting this morning.

There's a recognition in many medical schools now that the clinical track, which has been the lower caste—the people who were actually generating the money that keeps the academic health center afloat while the investigators are off in their labs discovering great new truths—should be recognized as equal citizens within the symbiotic academic healthcare community. And so, there is an effort to do that. There will be a long way to go, however, to really make them equal partners, at least in terms of prestige, etc.

There is one department chair in our medical school who is a clinical professor and even holds an endowed professorship. That is very unusual though. Ultimately, the lower castes in the world of medicine are the nonphysicians. The lowest caste, I'm ashamed to say, is often the person whom we're supposed to be serving, the patient. They're frequently not included in the decision-making process because "the doctor knows best." It is still very rare to have a shared decision-making process. If a new hospital is in the planning stages of construction, is the community,

as the potential patients, consulted? We rarely ask the people we actually serve what they want. I would submit to you that it is our clients and patients who are quite often the lowest members of the caste system.

Professor Neumann: Thank you Dr. Hinshaw and Dean Fisher.