PRACTICE VERSUS THEORY IN ACADEMIC MEDICINE: THE CONFLICT BETWEEN HOUSE OFFICERS AND ATTENDING PHYSICIANS*

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THERE is a small scandal in the land. Wherever attending physicians—not surgeons—gather, the conversation often turns to the conflict between medical house staff and attending physicians. While the discussion among ourselves will surely continue, the underlying issues are important enough to be aired in public and to require attempts at a solution. This essay grew out of an effort to understand my own distressing conflict with house officers over the past several years.

Two features suggest that the reasons for the tensions might not simply be my cranky personality. The first is that this difficulty has come into bloom in the last eight to 10 years, although I have been interacting with house staff as an attending physician for 22 years. The second reason is that I have no problem with these same physicians when they are students. It is difficult to understand how it is that they might love me on June 30th and hate me on July first! They should either hate me or love me: the date should make no difference. Something happens on July first, however, which changes the situation.

Medical attending physicians are not the only troubled group. A new complaint is heard from interns: "I hate it," "It's the worst year of my life," "I'm just trying to get through the year." In my Third Division

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days at Bellevue, just as now, an internship was hard work. However, although the year was tough, it was an exciting and challenging time whose good memories far outlived the bad. It was not discussed, as a rule, in the stark terms of hate. Widespread talk of *hating* one's internship is a new phenomenon. Further, both the intensity of the attending physicians' unhappiness with medical house officers and the dissatisfaction of medical interns suggest that this is not just the same old intergenerational conflict. Indeed, I believe it is something new.

Often such problems are explained in social terms: the house staff is a close knit bunch with such strong group identification that it is difficult for them to act out their anxieties and tensions against one another. It is, after all politically unwise to get angry at one's resident, so, instead, the attending physican becomes the butt of tension. Some attendings are considered good guys (male or female) at whom one does not sound off and others are considered bad guys (male or female) to whom one can do whatever one can get away with. Unfortunately for simple answers, the current problem cannot be discounted in this manner. While there may always be merit in explaining things on a social level, that "always" undercuts the explanation. The explanation is old; this problem is new.

I believe, instead, that there is a truly *new* structural—systemic—issue at the present time that is more fundamental than any interpretation based on social factors. This issue can explain the current conflict between house officer and attending physician, as well as the unhappy malaise of house officers. For at least two generations, academic medicine, as practiced on the medical wards of many teaching hospitals, has been ahead of—setting the example for—good medical practice by even the best of practitioners outside of the hospital, the part-time attendings. Medicine was said to be "academic" to indicate that it was "good medicine." An important aspect of the current problem is that academic medicine has fallen *behind* the practice of good medical care. Between the shift of technology to *outside* of the hospital and the sophisticated demands and requirements of modern patients, the world of good patient care has changed drastically during the past 10 years, and academic departments of medicine have failed to keep in step with the change.

Academic medicine is lagging, as I see it, because of three internal conflicts—all conflicts between medicine as it is taught in medical schools (theory) and medicine as it is practiced in the teaching (academic) hospital. I shall enlarge on each of these later, but let me introduce them now. First, the student of the present era enters medical school with an

internalized *ideal* of the doctor as someone who takes care of patients and who is driven by a personalized humane feeling for the sick. This idealized belief about what medical care is supposed to be and what doctors are supposed to do is actively encouraged during medical school only to come into conflict, during internship and residency, with the technology-intensive and technology-exclusive medicine most often practiced in academic wards. The second problem is that the fundamentally important training in pathophysiological thinking that the student receives during medical school deteriorates on the floors of many academic medical centers into pattern recognition of disease and "recipe thinking" about treatment characteristic of current academic hospital medicine. Third and finally, a method of training that originated in the early years of this century from a desire to rid medicine of the authoritarianism of the German schools of the 19th century has resulted in training programs that provide experience in a setting which *denigrates* experience!

The "Ego Ideal" Versus Performance

Let us turn to problem one. An internalized ideal of "the doctor" exists in each student. When an ideal is internalized, no matter whether cynicism overlies it—all the more so when cynicism overlies it—the ideal continues to provide the image against which reality and the individual's performance is measured. For physicians of my generation, "scientific medicine" might be such an ideal against which we measured our performance. When an internalized ideal has failed, people tend to blame themselves and not the external reasons why failure was inevitable.

Nowadays the "ideal physician" that medical students internalize and that is emphasized by the world around them is a technically competent doctor who cares about the patient as a person. Doctors on television are this way—of course, they are more fortunate than most of us because they see only about two patients a day and therefore they can spend their entire time on these two patients, their families, the community, and what else. This view of physicians, however, comes not only from television or the perspective on the ideal physician provided by other media, it is also the image that inspires the increasingly popular and visible family practice model in the United States.

There is a cluster of beliefs about these ideal doctors. For one thing, they care about feelings. Nobody asks what you *think* about something any more, they inquire "how do you feel about it?" Also part of the

belief system is the ecological viewpoint—René Dubos' contribution, that patients exist in an environment and cannot be understood apart from their macro and micro environments. Yet another aspect has to do with the rise of medical ethics in the last 10 years. Students talk about autonomy and paternalism nowadays, and about the importance of informed consent and patient participation in their own care.

This new internalized ideal is encouraged during medical school. Despite the continuing stress on science and high technology training, the complaint that nothing else is taught is unfair. Every modern medical school has many teaching exercises—required or elective—that promote the new ideals. In addition, many faculty members with whom students interact subscribe to these new beliefs. Naturally, the students' families and friends share the new ideas about what doctors are suppose to be and to do.

Further, we know that the students' choice of heros has changed. Clinical researchers and laboratory scientists have fallen from first place, their places taken by family physicians and primary care doctors with unfortunate consequences for the future of basic research and the training of scientists.

Here comes July first and here comes reality! High technology, disease oriented, organ system medical specialty care, despite its problems, becomes the intern's new way of life. Whatever happened to the "patient as person," exemplified, perhaps, by the dying patient? These new doctors, most recently medical students, came in with the beliefs I have discussed, but they have no theory and no skills to back up their ideals, skills which will facilitate their treatment of the dying "as persons," or permit them to deal with issues which do not have to do solely with the dying person's disease. Disease theory is in place; technical skills aplenty are in place; but theory or skills having to do with "sick persons" are in short supply. All of this is exemplified by those awful situations in which patients long past any chance of recovery are repeatedly resuscitated by young doctors who do not want to keep doing this, but do not know a way out of the mess. How can it be that their ego ideal, the attending physician, often seems able to stop and get others to stop fruitless, painful resuscitation attempts? Here, then, is another situation where young physicians fail themselves. It is not surprising that conflict is often present in such settings.

What happened to feelings in all of this? Feelings become a terrible liability. To have feelings is to be aware of pain and suffering in your

patients. Worse than that, it is to be aware of your own contribution to their pain and suffering. It is a modern sadness that interns too often see themselves as a *source* of pain rather than as the providers of relief. To be aware of the pain and sadness around one, without any theory or skills to deal with the feelings that are evoked by the very sick, the feelings one has been taught are so good and important, makes these feelings a liability. The alternative, to deny or repress feelings, confronts house officers with emotionally charged situations for which they have no diagnostic or therapeutic procedures. "Ego ideal," however, seems to handle patients and their feelings, and seems to be able to talk about even the most painful subjects with patients. Again, the new physicians have failed themselves. They may comfort each other by using the frequently raised but false dichotomy between the technical and the humane. "He (or she) may be good at the human stuff, but does he (or she) really know medicine?" This is a variation on the old question "Would you rather have a technically competent or a humane physician take care of you?" The need for technical excellence goes without saying, but it is only the beginning of mastery in medicine. (I would, personally, rather have a well trained, complete physician who is able to integrate scientific and humane considerations.) There is no logical or inherent conflict between the technical and the humane, but, in fact humanistic failure produces conflict—with attending physicians.

Difficulties surrounding ethical issues such as informed consent or the right to refuse treatment produce another replay of the same conflict between the internalized ideal and the actual performance. Once again, the blame is taken internally by house officers, who increasingly talk about themselves in such painful terms as "scut-dog," "a piece of garbage," "a piece of shit." So far as I can tell, at the New York Hospital these difficulties have been no less prevalent among women house officers than among the men.

Pathophysiology Versus Pattern Recognition

The second problem that underlies the conflict between house officers and attending physicians is the disparity between the training in pathophysiology that medical students receive and the kind of medicine that is practiced on the floors. Undeniably, the greatest advance in medicine in the last century has been in understanding how the body works in health and disease. Medicine was orginally dependent on disease theory to

organize this approach, but more recent research has been guided by functional understanding of basic body mechanisms. In reading the current medical literature one can readily confirm that although a particular disease may provide the clinical material for the paper, the research is most often about basic physiological mechanisms. This is also what is emphasized in medical education. This has been the educational emphasis for some time, but it is more true now than ever, and our knowledge is more complete than it was. But there is no equivalent training in how to apply pathophysiological thinking to individual sick persons. In terms of systems theory, the knowledge is at best organ pathophysiology and not whole-person pathophysiology. The student learns much about, say, defects in immunity or myocardial function but little that will allow predictions as to how a particular immune defect will be expressed in *this* patient or how a specific degree of myocardial dysfunction will be expressed in *that* person. The reverse is also true and important. The student does not learn how to question a patient so as to be able to translate what the patient says about, for example, exertional dyspnea into a specific statement about myocardial function.

Although in recent years decision theory has gained increasing attention in helping to apply new information about disease states to a particular patient's illness in a systematic manner, it has its own problems. Decision theory is unpopular; it is useful in gross situations only; there are insufficient data on which to base its probabilities; and students have difficulties in Bayesian probabilistic thinking. Most of us do not go around with Baye's Theorem in our head. In addition, there is some question about whether Baye's Theorem is the best or most natural way to handle the problem of probabilities.

The reality of a house officer's life is quite different from that of a student. Interns and residents feel the necessity to make a diagnosis—to name the disease. The problem oriented chart has not really worked the way it was meant to. The history is rarely taken with the idea of uncovering the pathophysiology of the patient's illness—finding out what has gone wrong. Instead, attempts are made to find the disease, using primarily pattern recognition.

Now, as in years past, attention to the patient's chart is generally attention to "the numbers"—to keeping the laboratory sheets up to date. Chart notes, at least in the New York Hospital, do not make explicit the thinking of the intern about the diagnostic or therapeutic actions contained on the order sheets. House officers are not usually rewarded, except

occasionally upon the patient's admission, for a carefully written exposition of the patient's history, physical and laboratory findings, that contains reasoning behind the physician's conclusions and clarifies the actions that are anticipated. Pathophysiology is used almost exclusively to rationalize a finding rather than as a part of reasoning. House officers who are carefully analytic in chart notes, who display their reasoning, and write down manifest opinions and judgment stand in danger of being openly criticised for the errors they have made. Like the rest of us, they will inevitably be wrong from time to time, and there, for all to see, will be their error on paper. They would have failed a basic current priority, "cover your ass."

Recipe thinking is the equivalent in therapeutics of pattern recognition in diagnostics. Recently I was in our medical intensive care unit, and I overheard a resident and student talking about the treatment of asthma in the emergency room. The student said, with one of the manuals on emergency medicine open in front of him, "Well, in Florida, they *always* do blood gases on asthmatics in the emergency room." The resident replied, "In the [New York Hospital] E.R. we *never* do (blood) gases on asthmatics." "They always," and "we never" stand for recipe thinking. "You are sending the patient home before 10 days of the intraveneous heparin?" Why "10 days"? Why not nine days or perhaps 11. The answer is, "We always do it for 10 days," et cetera!

Neither pattern recognition nor recipe thinking are new or unique to the present scene. They have been around forever. Neither is the failure to represent one's judgment in the written notes a current failing only. Success for house officers did not come from patient care years ago, and it still does not. But there are crucial structural differences in medicine then and now. Years ago, for hospitals and physicians, the work ethic was individualistic. Success and recognition for the individual physician (in the fantasies of the young) were to be sought in a finding a cure for cancer. (Look back 30 years and count the number of authors on a major publication and compare this to the numerous authors on an important contemporary research paper.) By contrast, modern medical centers have, of necessity, become corporate entities whose rules for success resemble any other large corporation. Times have changed and young physicians know it better than many of their elders—they had better know, they need the knowledge for survival. Unfortunately, the internalized ideal physician is not a "corporation man," so in their heart of hearts they do not believe they should care about the crass opportunistic and political issues that

seem to them to be necessary concerns for success in the corporate medical world. The thinking, caring doctor, the internal goal of the medical student, a student nurtured on pathophysiology, has become, instead, a recipe house officer and a political recipe doctor at that.

If, in caring for a mutual patient, an attending physician wants to explore the reasoning behind a decision, or attempts to bring out the intern's (or resident's) thinking process, it is often taken as an attack on the house officer and met with hostility. How could it be otherwise? To be taught requires admitting to ignorance. To be ignorant must surely and rightly be the natural state of a physician in training. However, to any but the most secure, ignorance feels like inadequacy, pure and simple, and, as noted earlier, house officers already feel massively inadequate. The hostility has license because, in the current institutional structure with its often sharp dividing line between part time and full time attending physicians, the opinion of an intern's or resident's performance formed by part time attending physicians has virtually no effect on that house officer's career. This not only impedes teaching, but removes a valuable source of evaluation by experienced attending physicians who, because they share the same cases and are the most clinically oriented, have a greater opportunity to judge house officers' work than do other teachers in an academic setting. In short, the most clinically oriented and experienced physicians have the least say about house officers' clinical performance!

Experience Disvalued

Interns and residents gain experience in an atmosphere that disvalues experience. This is the third problem that promotes conflict between house officers and attending physicians. It must have been very exciting to be at Johns Hopkins at the turn of the century. Here were all the physicians who had come back from Germany with a new, scientific way of looking at medicine. They seemed also to have returned from Europe with great annoyance at the authoritative professors who had taught them. They must have felt themselves to have been abused, because the system of education they established, in which science was paramount and the patient was teacher, excluded any *geheimrat* professors! Every physician would stand as an equal in front of the mysteries of disease. That, after all, is one of the things that science is about! Their attitude seemed to be that those who mastered science would be master physicians.

I remember reading, about 20 years ago, that Eugene Stead said that his

chief residents were as good as any doctor in the country. This is a patently ridiculous statement, and it was patently ridiculous then. Even Walsh McDermott, whom I revere, said, at about the same time, "Never again will anyone be able to rise to prominence as a great clinician," in the sense that science had so solved the problems of patient care that to know medical science and technology was to know medical care.

The administrative result of this belief, that science makes equals of us all in the face of disease, is that, in teaching hospitals, interns became the physicians in charge of the cases. However, the dilemmas facing the interns and residents in the current era have changed. In the past, the great challenge was, or seemed to be, the diagnosis, but that is no longer as true. In many instances modern technology has reduced making a diagnosis to a trivially easy task. What is *not* trivially easy is knowing not only what to do, but what *not* to do. The difficult dilemmas arise from the enormous diagnostic and therapeutic potency that we now have. Scientific medicine, which has provided the power, neither sets limits nor provides the answers to the ethical and personal problems raised by science and technology. It does not, certainly, solve the problems of suffering patients.

It is generally believed that judgment is required to know not only what to do, but *when* to do it. It is also received wisdom that judgment is acquired only through experience. Is there something about judgment that *denies* the principle that science makes equals of us all before disease (the tenet that justifies the intern being in charge of the case)? Although, in the care of a sick patient, science may inform a particular judgment, there is an inevitable *disjunction* between science and judgment. Science produces generalizations—depersonalized generalizations—while judgment is about individual instances. To digress for a moment, if one looks at the anatomical illustrations of the 17th century, one will see that the dissected figures are always depicted in a personalized manner. An arm is uplifted as though to gesture or the legs are set in the stance of a person rather than as merely a dissected figure. The point is that no matter how the figure is dissected, it is clearly a person. By contrast, our present anatomical drawings are not in the slightest personalized. To demonstrate this idea, I have sometimes contrasted two sets of illustrations about the biomechanics of the legs. In the antique drawings to which I refer, to demonstrate how the force is exerted downwards on the legs, the man is depicted carrying the world on his shoulders. In a book on biomechanics published in 1982, exactly the same point is made with a series of illustrations that are not

only not personalized, but that bear no resemblance to legs. The change in the way anatomical figures are represented underscores the fact that medical science *could not* progress until, so to speak, the person had been removed from the body.

Science is about depersonalized generalizations, but medical practice is about individuals. The problem of teaching some systematic method of going from depersonalized knowledge about disease to decisions about particular sick persons has proven elusive in the extreme. We continue to call the process judgment and to believe that it can only be learned by experience. Again, making the intern the physician in charge of the patient, a responsibility that must be backed up by judgment devalues experience in training programs whose purpose is experience. It reminds me of the story of the mother who said to her son, sporting his new yacht and new captain's hat, "By you you're a captain, by me you're a captain, but by captains, son, you're no captain." We may currently place interns in charge of the cases, but interns themselves are acutely aware of their inexperience and the inadequacies of their training for many of the problems they now face.

Parenthetically, in services where attending physicians cannot write orders on their own private patients, the difficulties are compounded by the most bizarre administrative structure that could be developed: interns have authority without responsibility, while the attending physicians continue to have responsibility but are stripped of authority! The patients know who their doctors are; they chose them. The intern has been given the authority and the aura of responsibility, but does not truly have responsibility. The interns know very well who the patients believe to be their doctors. The interns are also aware that in a crunch—when a lawsuit occurs, or some disaster befalls the patient—the attending physician is the responsible physician. Administrative authority without responsibility and without the authority that is born of knowledge promotes a kind of acting-out: proving one's bureaucratic power by nay-saying in lieu of demonstrating the power of one's judgment.

The complaints of the modern intern should be expected. Take the brightest and most highly motivated young people that the educational system has to offer, reinforce the ideals they entered with throughout medical school, then put them into an administrative structure that suggests something that they know is fundamentally untrue—it is inevitable that they will hate themselves and their internship.

Surgery Contrasted

Earlier I suggested that the same conflict is not found between surgical house officers and attending surgeons. Its absence may illuminate the importance of the issues I have discussed. First, surgeons gain experience in a setting where experience is valued. There could not be and there is no pretense that a neophyte is as competent to do surgery as a surgeon with experience. Beginners start by watching and assisting, and progress in slow stages from minor procedures to increasingly difficult and complex cases; less experienced surgeons are supervised by the more experienced, whether resident or attending. In addition, and crucially, surgical interns and residents must stay on good terms with attending surgeons if they are to be allowed to operate on the attending surgeons' cases. Second, the anesthetized patient (and even the patient in the immediate postoperative period) has more in common with the depersonalized body represented in medical science then with the person in everyday life and function. Consequently, there is much less dysjunction between the anatomy and physiology learned by medical students and the knowledge base required by working surgeons. Third, the internalized ideal of the surgeon with which the student enters medical school (and which most of the society entertains) is a fairly accurate representation of academic surgeons as they are. While one may wish a surgeon to be feeling and caring, no one would even dream of asking "Would you rather have a humane surgeon or one who was surgically skillful!" Finally, while the complex medical care that was once the exclusive domain of the hospital is now frequently practiced outside the institution's walls, surgery remains within the hospital. The fact is that surgeons and surgery differ from internists and internal medicine—but it may be time for internal medicine to borrow some things from surgery.

Summary

In summary, medical house officers—interns in particular—fail in terms of their own internalized ideal of physicians. They have insufficient skills or theory to deal with sick persons as well as diseases, or to handle the ethical issues which medical school has taught them to perceive. Second, they fail in terms of the ideal of pathophysiological thought on which their training was based because they have insufficient theory or skills to permit them to apply organ pathophysiology to whole sick persons. Finally, they live a lie. They are acquiring experience in a learning situation in which

experience is disvalued, and not uncommonly in an administrative structure that gives them authority when they are aware that the true responsibility lies elsewhere. In all the arenas in which they perceive themselves to have failed there are attending physicians who are able to master the science and technology, apply it to individual sick persons, and meet the personal and ethical problems which house staff often see as paramount in medicine today. As is so often the case, they take personal blame for these failures—for having failed their own ideals—rather than attributing them to the academic world in which they find themselves.

Academic medicine, as practiced on the floors of modern medical centers, unable or unwilling to expand beyond the confines of scientific mastery and a technology-exclusive medicine, has fallen behind what medical care of the very sick can and should be. The price is paid by house officers who feel inadequate, by attending physicians, upon whom they vent their feelings, and by sick patients, who receive less than optimal care.