

MEDICINE: A TRADE OR A PROFESSION

Presidential Address

First, I want to let you know how deeply I appreciate the honor which you have bestowed upon me electing me your President for this past year. You all know well, I hope, the deep affection I have for this Academy. Through the years our autumnal equinoxial migrations are pleasantly anticipated by all of us. There is an old Hoosierism which defines a friend as "a feller who knows all about you and is still your friend." To you, my long-standing friends of this society then, I offer my sincere thanks.

But you are not going to get off with this alone! For two years I have been reflecting on what I should say on this occasion. The product of this reflection I fear is not very substantial. I have reviewed the offerings of the past. I could never match the humor or entertaining qualities of some of the presentations which a number of my predecessors have given. I have not traveled abroad and therefore have no slides to show the wonders of the far corners of the earth. I have no recent scientific accomplishments to report under the present circumstances; and I am no master of the well-turned phrase, such, for example, as extolled "The Virtue of Inconstancy." Had I your best interest truly at heart I would, of course, follow the lead of my immediate predecessor and forgo this talk entirely, releasing you to enjoy for the rest of the morning the outstanding beauty of sun and sand and sea just beyond these walls. But I am not that altruistic!

One of the major sources of pleasure in this society has been the opportunity to talk over problems and topics of mutual interest. For the next few moments then, though unilaterally, I would like to comment on one or two of these. They are, in a Quakerish way, concerns of mine. In the past I have already discussed them with some of you, and no doubt will reflect thoughts which you yourselves have originated.

Ulysses said, "I am a part of every man whom I have met." We in this Academy have met frequently. What I have to say is in a sense a composite of your thinking as well as my own. Wherein these thoughts have value, you may therefore take the credit. Wherein they fail, I must take the blame for my ineptitude.

This is the 21st meeting of this Academy of Neurological Surgery. If we permit our corporate selves an analogy with the individual, it is with this meeting that we come of age. I was not present at the initial meeting and do not know all of the details leading to the ultimate adoption of the name "Academy". I have read with interest, however, that this term in the 18th Century was frequently applied to schools run by dissenters. Many of us have heard from the founders the circumstances of the Academy's eclamptic birth (at least there was high blood pressure). This was followed by an idyllic childhood and a stormy adolescence, but more recently there has been evidence of serene and vigorous maturity. Scientifically, over the years it has approximated Cicero's description of the original academy of Plato, of which he said, "The characteristic of the academy is never to interpose one's judgment, to approve what seems most probable, to gather different opinions, to see what may be advanced on the other side, and to leave one's listeners free to judge without pretending to dogmatize."

In these years of our existence changes in our profession and in our special corner of it have, of course, been tremendous. On the occasion of that first meeting only a few of the sulfonamides were known. The antibiotics were at most a ten-year old idea in the mind of a Scottish biologist. Blood banks were rumored to exist in Russia, collections no doubt being from cadavers. The atom was a harmless something which combined with other atoms to make a molecule. The train was the principal means of long distance travel and was, in fact, incorporated in an early seal of this society. The airplane existed but many were happy that their wives opposed their using these hazardous machines. The helicopter had not yet flown. The jet engine which brought many of you to this meeting was just appearing on the drawing boards, and the cow was the only terrestrial body reliably reported to have seen the other side of the moon.

In neurosurgery, too, there has been great change. The number of neurosurgeons then practicing in the entire country was less by 50 than the number now residing in California alone. They were operating upon tumors and abscesses, though the latter were drained and seldom removed; sympathectomies were being done for hypertension, for vascular disease, and for causalgia; tracts and sensory nerves were cut for pain and motor nerves for spasms. Complete laminectomies were done for lumbar disc disease (cervical disease was even less understood than today), and there was spreading

interest in the removal of scars for epilepsy. Most had never carried out an angiogram, much less removed an aneurysm or angioma. Thrombosed vessels remained thrombosed - as most do today. Lipiodol was thought to excel over air for myelograms. The peduncles and pyramids had been cut, but the thalamus and globus pallidus were unravished. Blood pressure during surgery was to be maintained if at all possible; a temperature drop to 35 degrees C. was alarming; and the 100th anniversary of anesthesia approached with endotracheal tubes not yet appearing on the scene.

During this time fringe irritants have developed on the medical horizon - that is, they are irritants unless they happen to you and then they can be serious.

Physicians have become fair legal game in a culture centered about the jackpot, and, with the disappearance of the quiz show, may become even more highly regarded in this respect. With an increasing segment of the population having more to gain than lose by illness, we have become involved willy-nilly in myriads of quasi-judicial situations, usually accompanied by a multi-paged form, where decisions will be monetarily profitable to one of the contending parties, the medical facts appropriately distorted, and medicine usually the loser no matter what the end may be. Though deprived - through a variety of circumstances some of which are our own fault - of control of most non-professional functions, we have continued to be held responsible for increasing hospital expense and the misdemeanor of every maid, orderly and technician. The press, which has discovered that medical articles have an appeal second only to sex, has produced a semi-educated public which resents the disillusionment too often necessary from us - in fact, too often one of our own may have helped create the illusion in the first place.

The most important changes, though, and the ones which are the concerns of my discussion have been those tending to bring loss of stature to our profession. One of these has the appearance of deliberate attack. The other is the product of pre-occupation, and of intensified interest in the scientific aspect of medicine to the end that this part of the profession has been mistaken for the whole. I speak of the reference to our schools as trade schools, medicine then becoming a trade, and of factors culminating only recently in lead articles in two magazines of wide circulation, and as a major topic in the dedicatory address at one of our most respected schools of medicine. Each in a

varying degree is critical of our fulfillment of our obligation to the society constituted by our patients. Amazingly, all of this comes at a time when the people of this North American continent are incontestably better cared for than any other in the presently known history of mankind.

As we come of age, then, it seems to me that this last problem - these are two phases of the same problem - demands our serious reflection.

This trade school slur is venomous. It is directed at the neophyte and aims to destroy within him pride in the work that he is doing and in becoming a member of the corps. It is being perpetuated, if not inaugurated, by a small but vocal group of maladjusted paramedical beatniks - a brainwashing term which if left unchallenged, will add its bit in undermining the dignity of the profession, for as one speaks so will he act and think. We will discover, if we look into it, that "trade" is defined in Webster as originally meaning "a track of man or beast - a trail - a pathway" (such as made by one following faithfully behind another). In a more modern usage it is "hence a pursuit, as cobbler, merchant, carpenter, requiring manual and mechanical training and dexterity."

Certainly by this definition a trade is an honorable occupation of which no one should be ashamed. On the other hand, within this definition one could hardly aim at reaching that summit of human achievement which in medicine some of us think one can.

Broad advances are not to be made by trotting down some dusty trail like a string of packer's donkeys, one closely behind the other (though such demeanor is said to occur in certain medical quarters).

The insinuation in this term "trade school" and "trade" applied to the professional school and the profession of medicine must be quite apparent. But we have noted that the profession itself is under attack and by responsible parties whom we must accept as being constructively oriented.

To study the second and more serious phase of this problem, again definition would seem to be in order.

"Profession" is said by Webster to derive from a Latin term meaning "bound by a vow." Further, "it is the occupation, if not purely commercial, mechanical, agricultural

or the like, to which one devotes oneself." Going on, we learn "the three Learned Professions is the name often used for the Professions of Theology, Law and Medicine." Some have added a fourth, Pedagogy.

It was from the learned professions that the University system in Western culture took origin - specifically in the 9th Century from the School of Medicine in Salerno. The term "Doctor", said to derive from a Latin term for teacher, was first applied in the 12th Century at Bologna in the faculty of law. Later in the same century, about 1150, this degree was conferred in Paris at a faculty of divinity and not until the 14th Century was it first conferred in medicine.

The difference, then, between a trade and a profession is, I believe, readily apparent. The common elements in the professions, of course, are: privileged communication; superior ethical and moral conduct in assuming responsibility for the spiritual, social, and physical welfare of fellow man; and, by assumption of the title "Doctor", the obligation to teach. It should be emphasized, the fundamental and essential element is mankind. In medicine these concepts must, and I believe do, to a major degree, hold true today. However, the very advances in science which are improving our care of the organic physical welfare of man have clouded the emotional component and brought us discredit. Neurologically, we have forgotten that the archipallium was there first and still supersedes the neopallium at times of stress and conflict. We have forgotten that it isn't what you do but the way you do it - that the difference between acceptable and non-acceptable behavior often is salesmanship.

The physician, prior to a century and a half ago, had little to offer his patient but sincere interest, deep sympathy, and modest relief of symptoms (too often this still constitutes our armamentarium). Then came the dawn of the age of science; the rapid expansion of the orderly accumulation of knowledge and its interpretation. In other words, there appeared a recognition of and an elevation of the concept of research. Now research is utterly important and necessary, but, as was pointed out in a recent editorial in "Science", let us not forget that it represents the exercise of a very elemental biologic concept - that of investigation. An amoeba is capable of investigation. To jump rapidly to the other end of the scale, a baby investigates - carries on research if you will - when it examines its environment. Intellect becomes apparent when the results of these investigations are stored, interpreted, and applied. The accumulation and interpretation is science. The application is art.

To quote Jevons, "Science teaches us to know and art to do and all the more perfect sciences lead to the creation of corresponding useful arts." It were better to put "may lead" for there is no assurance. I believe, though, we will find in human biology, which is medicine, that such a goal is justifiably anticipated.

The pure scientist tends to work in an area of small dimensions, controlled variables, and, as the variables are limited, his work becomes more precise. From the amorphous, he produces crystals. These crystals are cold and brittle and lifeless. Pure science is amoral. It cannot be lifted whole into the human biological field.

Not that attempts have not been made. One of the first in matters neurological was reported 85 years ago from Cincinnati - the same city which was host to the first meeting of this Academy. Roberts Bartholow's classic initial confirmation in the human of the demonstration by Fritsch and Hitzig of the response of the dog's cerebral cortex to controlled electrical stimulation was an outstanding example of the application of scientific development - of a form of research if you will. But his "rather feeble-minded domestic" gave her life - at least sooner than she would have otherwise - to prove his point. As an exemplary exercise in the fulfillment of the obligation of the physician, then, it was not without question, for nothing was learned which of itself was necessary to the planned development of intracranial surgery by MacEwen and Horsley some eight to ten years later. In a sense, Bartholow's experiment represents the epitome of the fears of people today. The ultimate transfer to the patient of the developments in the laboratory is of course manifestly essential. The circumstance must be extraordinary, however, when one is justified in doing this without some positive benefit to the person involved.

Though the cry of the critic is for sympathetic understanding, it can be as unfortunate to go too headlong in that direction as in the other. There is no good without its bad and we must remember that the suave bedside manner is the principal stock in trade by which the charlatan hides his professional incapability. (Neurosurgery, by the way, with its good name and widely recognized inherent hazards to the patient may be particularly attractive to such scoundrels.)

These adverse comments discussed have come largely from outside the active profession. Let us not forget that to some there is a peculiar attraction to attempting to run

someone else's life, and not everyone with this propensity is in politics, national or local. Half-knowledge seems to create a superior feeling of exuberant self-assurance. Any patient with a perplexing problem will tell you he has had no trouble in obtaining, even from passing strangers, gratuitous advice. We must accept, though, that our critics are men of good will and that they too strive to have for us in medicine this sympathetic understanding.

The problem is ours, however. Perhaps there is no solution. In fact, perhaps Professor Hardin is correct in praising waste and in saying "The sentimentalist who seeks to eliminate the waste in species by preserving all mutants and breeding equally all types ultimately brings about the extinction of the entire species." The point can be argued. In the meanwhile a solution must be sought. I am in no position to hazard what the answer will eventually be. But there are some principles of long standing which must support this ultimate solution.

With sound scholarship in our professional schools directed by men of integrity and broad outlook, capable of "seeing problems clearly and of seeing them whole" - capable of example as well as of precept - there can be no implication of trade school.

For our patients, whoever and wherever we and they may be, we must reassert and demonstrate in a compelling way through a considered admixture of science and sympathy that our interest is their welfare. Slogans, ideas, and concepts must be kept in perspective.

In our medical schools and in the wards, both those formally connected and those not, there must be a re-dedication to the care of sick people and through this the advancement of our knowledge and the education of students of all levels - undergraduates, recently graduated, and, let us not forget - old grads - ourselves. I believe there is an active conscientious effort to do this now. It would seem we must try harder; and apparently we must let our efforts be known.