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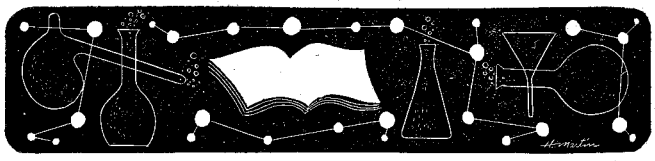
THE HEALER AND THE SCIENTIST



By DANA W. ATCHLEY

The art of healing and the science of medicine were once separate and often antagonistic functions. Today the old art and the new science are merging ever more closely. This fusion and its effect on doctor and patient are discussed here by one of America's leading physicians, Dana W. Atchley, professor of clinical medicine at Columbia University and a long-time staff member at New York's Presbyterian Hospital.

THE pace of human progress has notably accelerated in the past half-century and the practice of medicine offers no exception. The medicine that I learned on the wards of a university hospital in 1915 presents almost as sharp a contrast to that taught today as would the 1915 variety to that of Hippocrates 2,300 years earlier. During these four decades the old art of healing has at last been fused with the young science of medicine. By the art of healing I mean the skilful and creative dispensing of any type of relief to the sick of body or heart. Like all the arts, it can be measured only in terms of the inspiration which it evokes. The science of medicine, on the other hand, includes all of the rich and demonstrable results of the application of man's intellectual faculties to problems related to his health. The art of healing is as old as recorded history; the science of healing is relatively young and only lately stands on its own feet. Medicine as a whole came of age when the stature of the science grew large enough for it to combine with the art in mutual understanding and respect. This new medicine is still adolescent, but it is alive and growing, and it exerts an influence far ahead of its years.

Man's urge to heal and comfort his neighbor is a basic human trait and the relief that comes from the sharing of pain and fear is almost universal. The ailing are highly susceptible to the art of the healer, no matter what his methods. These methods are unbelievably varied; they invoke the entire spectrum of man's faith and his superstitions; they run from the valid and sound to the dishonest and harmful. A richly endowed human being in the role of healer can offer his ailing fellow man an extraordinary amount of relief though he may have no comprehension of the disease processes involved. This very lack of knowledge evokes an authoritarian approach which highly intelligent patients, skeptical in other areas, welcome in their healer. Repeatedly the absurdness of a guarantee is obscured by a burst of wishful thinking, leading even the more sophisticated into the attractive pathway of pretended infallibility.

Reassurance is the physician's primary obligation, and it can be accomplished without the implication of spurious powers. A sounder and more permanent foundation is built by the exhibition of genuine interest and by an obvious desire to be helpful. These qualities and the loyal concern they imply are basic necessities alike for the grossest charlatan and for the best trained physician; they need no background of preparation; they are fully effective in the most untrained hands. But the more sensitive healer offers even richer rewards for his fee than authority and reassurance. Foremost among these are sympathy, of which many are capable, and compassion, a far rarer quality. For sympathy is given, hence may be simulated, may unconvincingly arise from a sterile heart; compassion is felt, and its depth and integrity establish a mood that calms and reassures almost wordlessly but with full conviction.

THOUGH he have no medical training, the genuinely talented healer can understand the personality and environment of his patient. A combination of hearsay, shrewd questioning, and intuition can develop a remarkably complete picture of an individual, his temperament, the stresses of his life, his strengths and his weaknesses. Advice so guided may be of such value that the patient's life is happily altered while nature is curing the ailment that led him to seek help. For those whom nature cannot cure understanding and compassion offer a measure of peace to the troubled heart. These gifts that the healer may

bring while in utter ignorance of the basic processes are impressive. Appropriately applied they create faith and they work miracles. Their influence explains the passionate testimonials given by the devotees of all healing cults.

It is unfortunate that the healer from the beginning has never been satisfied to confine himself to the sound and safe powers of his warmth and understanding. Whether he himself suggested it or whether the sick man demanded more substantial therapy, the fact remains that some material token has usually accompanied the psychological approach. Animal sacrifices, herb brews, amulets, powdered reptilian skins, major and minor magic of all sorts have been used both sincerely and dishonestly. Once in a million times the remedy chanced to be of real value; among other brews the bark of the cinchona (quinine) tree, for example, was used successfully for the treatment of malaria and a frog's skin cured dropsy because it contained a digitalis-like substance. On the other hand, the medicine man exerted a seriously harmful influence on the evolution of medicine by indoctrinating a demand for spectacular demonstrations of a tangible nature, a demand for action.

While the science of medicine was in its embryonic phases the highest type of physician was forced to rely almost entirely on the healing art for the good that he did. The revered family physician lived in a relatively small community, his patients were long-time friends, and he himself was usually a consecrated kindly individual. Had he and his patients been satisfied with the sympathetic dispensing of understanding and reassurance he would have done even more good and the sound development of the practice of medicine would have been less impeded. However, the urge for spectacular action, inherited from the magician, pushed him into many foolish and often harmful procedures. Bleeding was one of the most dramatic maneuvers, and probably the most dangerous, practised in enlightened circles. Many poor sufferers in need of a transfusion were bled white. Patients who needed better nutrition were starved, those who needed rest were bedeviled with leeches and blisters, a typhoid at low ebb was plunged into ice water, dessicated sufferers whose lack was water and salt were deprived still further by sweat baths. The most enduring of these violent treatments was the administration of strong purges; as a medical student I saw every patient entering the wards of the hospital given a large dose of epsom salts as an admission greeting. None was benefited and the stay of many was prolonged by this magic. Unfortunately, as the techniques I have mentioned (and there were many others) were handed on from teacher to pupil they developed a spurious sanctity which discouraged any attempt to alter or discard them. Medical science had not yet reached a maturity strong enough to counterbalance the traditions of the healer. Some discoveries made by isolated brilliant investigators were discarded by the medical authorities of the day in formal balloting.

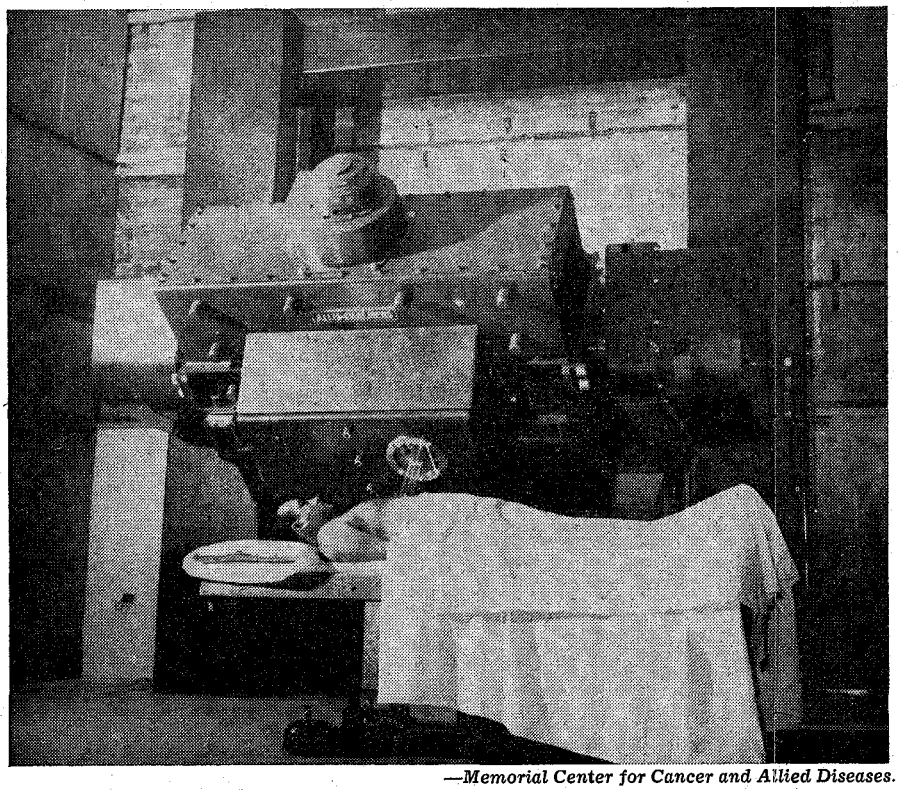
While the medical profession still evinces the human frailties of bigotry and is often too attentive to tradition, the physician who today discovers a new truth or discards an unsound heritage is more likely to be rewarded than exiled. This intellectual emancipation has been largely due to the influence of the whole field of science with its steady substitution of hypotheses derived from experiment for dogma built on superstition.

THOSE of us who entered medical school forty years ago found an impressive array of facts requiring assimilation; indeed most of us were discouraged at the seemingly impossible feat. The anatomy of the human body, both normal and diseased, had been thoroughly explored. Physiology was describing the superficial functions of the various organs and biochemistry was delving into the structure of the unique substances characteristic of living tissues. Bacteriology was eliminating many cherished preconceptions as to the cause of disease. In the basic scientific departments of the medical school imaginative research and sophisticated critique were abundantly evident.

In sharp contrast, the practice of medicine was strikingly less mature. As one stepped from the laboratories to the wards one moved into another world, a world still under the thrall of tradition and dogma. A few shafts of light in the form of simple examinations of the blood and search for bacteria in patients with fever had begun to penetrate, but the essence of the diagnostic study was a ritualistic type of physical examination. The goal of diagnosis was classification rather than understanding, classification too often oriented solely to the reminiscent picture of some previous patient.

There was an overwhelming preoccupation with the results of direct observation, understandable because it offered a great deal more than any previous approach, but nevertheless diverting attention from a more integrative attitude toward the ill person.

Treatment was almost wholly empiric, the uncritical application of codified tradition. As I have already pointed out, patients were purged, starved, and doused with ice water; there was little attempt to appraise the value of these measures either theoretically or pragmatically. Dosages were stereotyped and the exist-



—Memorial Center for Cancer and Allied Diseases.

The new twenty-four-million volt betatron.

ence of responses peculiar to the individual were relatively unrecognized.

Too often in the hospitals of those days the healer was not encouraged and the scientist was not admitted. The physician-in-chief, as he walked his wards garbed in the authority of the master (also often in a silk hat and cutaway), was accredited by his followers with omniscience. Indeed, some of the best of these famous clinicians did know all there was to know and used their knowledge with extraordinary astuteness. They represented the best in medicine and their inadequacies were those of their profession at that time. The healer had been pushed into the background by the physician's intense interest in pathology, the abnormal anatomy of disease. The scientist was not yet an accepted member of the medical staff. In fact, there was a certain amount of antagonism, some good-humored, some bitter, between the research workers in the fundamental fields and the physicians and surgeons in the hospital. A few joint enterprises were appearing at the time I became a medical student, but there was little active cooperation between the basic science departments and the men in the clinical fields. It was the introduction of the scientist into the hospital and the clinician into the laboratory that was largely responsible for the quality of modern medicine. There have been extraordinary technical advances and many individual discoveries of great import and brilliance, but their wise and efficient application to the management of sick men and women would never have been possible without a change in the physician himself, without the development of an experimental attitude and the critique that this evokes.

THERE are so many differences between the best medicine of today and the practices of forty years ago that it is difficult to present them in an orderly way with attention to relative significance. The synthesis of the healer and the scientist has produced two outstanding changes in the practice of medicine: the healer has guided us back to a primary preoccupation with a person, an individual human being, and the scientist has given us the power of analysis and integration and has led us to discard orthodoxy and illogical tradition.

Interest in the individual has always been evinced by the physician with a true instinct for healing, but in the past two or three decades it has increasingly been acclaimed as a primary objective. Medical students are now taught that a good history is

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Medical Journalism — With and Without Upbeat

No one is better qualified to discuss the pros and cons of medical journalism than Edith M. Stern, respected author of books and articles for the layman on medicine and psychology.

By EDITH M. STERN

AS A VETERAN writer of medical and psychological articles for the mass-circulation "slicks," I have a fellow feeling for the violinist who rebelled after having been with an orchestra for thirty years. One day, so the story goes, he sat with his hands folded during rehearsal, and when the conductor rapped on the podium with his baton and demanded furiously, "Why aren't you playing?" replied, with a melancholy sigh, "Because I don't like music." Sometimes I feel like sitting at my typewriter with my hands folded. I don't like popularization. It has gone too far. The little learning—with illustrations—which the magazines have been pouring into a thirsty public has become a dangerous thing.

One reason is that false hopes inspired by medical articles with such recurring titles as "There's Hope for . . ." and "Good News About . . ." can disrupt peace of mind and body far more than honest acceptance of the facts. Take my own case, for instance. I've sincerely believed the many articles I've both written and read about how chronic conditions can be prevented through regular physical check-ups and how the aging needn't be old—after all, weren't these pieces documented by quotes from reputable physicians? When I developed mildly incapacitating osteoarthritis, therefore, I underwent quite an emotional shock; this shouldn't happen to anybody, and couldn't happen to me! My uninformed mother and grandmother, who had only old Doc to educate them, would have shrugged off twinges and creakings like mine as something quite to be expected in their early fifties.

Light on the wonders of psychiatry, often shed in the first person by ex-mental-hospital patients or their relatives, has given that medical specialty an effulgence which its conscientious practitioners have a hard time dimming. Illusions engendered by magazine articles are now almost as common in mental hospitals as delusions stemming from disordered minds. Scarcely a day goes by, staff psychiatrists have told me unhappily, that some patient's relative or, indeed, patient doesn't brandish a magazine article and demand accusingly, "Why haven't you used this treatment?" The psychiatrist's explanation, "It's not indicated," is pale and unsatisfactory beside the glowing promise in the printed words: recoveries of so many patients out of only a few more.

Since reputable writers and editors (motivated by a combination of self-protection and integrity) tend to get expert checking before publication, factual inaccuracy as a rule is least among the factors which transmute what should be merely a report on a hopeful experiment into joyous hailing of a sure cure. An important one is readers' wishful thinking. Another is the highly competitive slicks' need for scoops; hence new medical discoveries are played up, truthfully enough, before time and further research play them down. In an early experiment with glutamic acid, for example, I.Q.'s of a handful of retarded children were raised, and it took many more experiments to break the prematurely publicized promise of a specific for mental deficiency. So, too, the public rejoiced over the far advanced tuberculous patients who danced on the ward shortly after having been given isoniazid. But by a year later some of those patients had died.

Furthermore, medical articles cannot be properly evaluated under the driers in beauty parlors or in train and plane seats, but only in the perspective of medical libraries where,