JAMES B. HERRICK LECTURE

A Parlous State of Storm and Stress
The Life and Times of James B. Herrick

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SUMMARY  James B. Herrick saw medicine becoming more dependent on science but was unwilling to let the human values of the family doctor vanish. His philosophy was summarized in the phrase, "The true physician must possess a dual personality, the scientific toward disease, the human and humane toward the patient."

THE REMARKABLE LIFE of James B. Herrick is the subject of this commentary. The qualities of greatness that brought him honor in his lifetime will be reviewed with attention to the flavor of the period in which he lived and a view of the leaders of medicine through his eyes. Much of the information comes from Herrick's own autobiography, Memories of Eighty Years. There are lessons for today in the life of this scholarly man of another era.

James B. Herrick's first memory was of Abraham Lincoln's funeral procession, which he witnessed in 1865 as a 4-year-old boy in the Chicago suburb of Oak Park. He graduated from the University of Michigan in 1882 and from the Rush College of Medicine in 1888. After an internship at the Cook County Hospital, he entered general practice in Chicago, but within a few years limited his practice to internal medicine. Throughout most of his career he was recognized as a consultant physician and as a clinical teacher. His life was divided between 2 centuries, extending from the American Civil War through World War II.

The title I selected for this evening, "A Parlous State of Storm and Stress," comes from Herrick's Billings Lecture of 1934, in which he described the state of the world as follows:

He would be rash indeed who would venture to predict what will be the exact status of medicine or the relation between physician and patient a century from now, yes, even a decade ahead. Toppling thrones, scrapped constitutions, unsettled economic conditions, hostile industrial and social groups, angry nations brandishing loaded weapons, all these things not alone upset the world of the present but threaten the tranquility and stability of the future. Disturbing influences have penetrated into every, even the humblest, walk of life, so that we have a new disorderly literature, a new painting, a new music, a new religion. It need excite no wonder then that medicine has been profoundly affected. In fact, medicine today is in a parlous state of storm and stress.

He used the word parlous, an archaic form of perilous, to describe the state of medicine and, more specifically, the plight of the general practitioner.

He observed that the day of the practitioner who knew everything about medicine was passing. He cited bacteriology, x-rays and biochemistry as techniques difficult for the practitioner to grasp and assimilate. He commented on the economic competition which the practitioner felt and noted that "his erstwhile patients could, without his help, get prompt and satisfactory service and at moderate fees through telephone, automobile, good roads, and financial aid from the public, or from philanthropic organizations that underwrote hospital and clinic deficits." He saw medicine becoming more dependent on science, but was unwilling to let the human values of the family doctor vanish. He summed up his philosophy when he said, "The true physician must possess a dual personality, the scientific toward disease, the human and humane toward the patient."

Dr. Herrick's success in maintaining the dual personality is at least in part attributable to his tireless effort to keep up with the rapidly expanding science of medicine. An account of an exchange he had with William Osler in 1902 provides an insight into this subject, which will be familiar to today's physicians:

At a meeting of the American Medical Association held in 1902 at Saratoga Springs, I sat next to Dr. Osler in the Section on Physiology and Pathology. In those days the sections were small — less than a hundred were present on this occasion — and discussions were informal and intimate. A paper was presented by Dr. Victor C. Vaughan, of Ann Arbor, on Ehrlich's side-chain theory, which was then a front-page subject in high-grade medical circles. Dr. Vaughan knew his subject. He drew on the blackboard the benzene ring; tacked on or took off a hydroxyl molecule here or something else there; talked of toxins, haptophores, etc. Dr. Osler listened intently, and then, as Dr. Vaughan closed, he turned to me and said seriously, wistfully, and pathetically... "Herrick, I wish I were nineteen and had it all to do over again." Soon after this he went to Oxford. I have wondered whether one of the reasons why he left America at the relatively early age of fifty-seven was not his consciousness that he could no longer keep up with the rapid advances in medicine.
Herrick himself made a dramatic attempt to keep abreast of emerging medical science. He realized that chemistry was destined to play an important role in medicine, so in the fall of 1904, when he was 43 years old and busy with consultation practice, he matriculated in the University of Chicago to take courses in biologic, physical and organic chemistry. He subsequently left his practice and went to Germany and studied with the famous organic chemist Emil Fischer, after which he returned to Chicago and to his practice.

Although convinced that science was the foundation of medicine, Herrick believed that research should be done by those who were specifically talented and was not for everyone. For example, he was critical of what he called the fetish of research as essential to the making of a clinician. He said that "surely research is not the sine qua non of the making of a clinician. The spirit and the methods of research? The ability to reason logically? The necessity for control? Emphatically yes. Compulsory research for all? No!"

The duality of his approach to medicine — science and humanism — is seen again in his comments on the role of the laboratory in medical practice. He quoted from a patient who said to him as he started to make his examination, "I hope you'll not be like the others; I want somebody who will examine me more and the x-ray films less." In another context he said, "In other words, instruments and methods of precision are not infallibly precise."

In 1922, Dr. Herrick defended the Heart Association against an attack by organized medicine. As one of the founders of the Chicago Heart Association, Herrick received a letter from a member of the Grievance Committee of the Chicago Medical Society asking him to show cause why charges should not be preferred for violation of the principles of medical ethics. The committee alleged that the organization created personal financial gain for the members and was but an "advertising dodge." The critics further stated that the intent of the association was "to take the bread and butter away from the underdog, the struggling family doctor."

With characteristic vigor, Herrick successfully defended the new association. He said, "It fell to me to head the defense before the committee, the three members of which were low-brows." (Herrick was very fond of the expressions high-brow and low-brow, high-grade and low-grade, and used them frequently.)

Herrick was especially irritated by the inference that he was against the family doctor, whose cause he frequently championed. He was often torn between his strong feeling that the family doctor should be supported and defended and his recognition that some practitioners were not keeping up with the new scientific medicine, and therefore, not doing a good job. In reflecting on this dilemma, he said,

When analyzing the features involved in this problem and in order to reach conclusions that are sound, one has to give up some idealism and, as a realist, to confess that not all physicians are born with equal ability. Some are by nature more capable of study, teaching, writing, or carrying on productive work at the bedside or in the laboratory. Some complainers are drones who do not realize that a major qualification of success is hard work and that the fault is not in their stars but in themselves that they are underlings.

A consideration of the major contributions of James B. Herrick to medical science must begin with a description of the forum in which most of his papers were presented; the Association of American Physicians. The Association was started in 1886 as a protest against the manner in which the Section on Medicine of the American Medical Association was run by, in Herrick's words, "a wire pulling, narrow-minded clique of old fogies." The new Association was the place to present new findings to a select group of the brightest scientifically oriented clinicians. Herrick treasured his membership in the Association and describes himself as a faithful attendant. He sat on the back seats for a number of years, but he wrote papers, took part in the discussion, and gradually found himself sitting closer to the front row. An example of a spirited discussion in which Dr. Herrick participated is that of a paper presented by Richard C. Cabot of Boston in 1914.

Richard C. Cabot was a much respected leader of American medicine, who was at that time best known for a classic paper on the classification of heart disease. Therefore, it would be natural to expect that whatever he said about heart disease would be accepted without question. He read a paper based upon autopsies in a series of 200 patients with mitral stenosis in which he emphasized the fact that in half the patients the diagnosis had been missed during life. Herrick was the first discussant of this paper and after a few complimentary pleasantries, he launched into a vigorous criticism of Cabot's paper:

At the same time I confess there is a little something in it that rubs me the wrong way. According to what he has said, it is possible for us to diagnose only about 50 per cent of the cases of mitral stenosis . . . We are justified in asking him, whether he or some one equally as competent made the examinations, or were many of them made as they are in many hospitals by young, perhaps inexperienced interns or residents? Who interpreted the results? He asked whether the patients were moribund or had atrial fibrillation or myocardial weakness that might have rendered examination difficult. This critique of a clinical paper is a model because of the pertinence of the questions he asked: Who made the observations? How competent was the observer? In what conditions were the observations made and were there complicating circumstances?

He concluded, "and so I must enter a mild protest against Dr. Cabot's way of putting forth these statistics." Cabot's paper was also discussed by Dr. William Sydney Thayer and Dr. Lewellys F. Barker, both of whom were more gentle than Herrick, but also far less constructive. Cabot, in his closing remarks, responds
to the comments of Thayer and Barker but makes no mention of Herrick or his specific criticisms. Cabot apparently dismissed Herrick’s commentary by saying, “All this talk about these diagnostic mistakes being excusable I have heard many times before and all I can say is that it is not so.”14

With this example of critical discussion in mind, it is surprising that no discussion followed Herrick’s paper on sickle cell anemia, which was presented in 1910. This paper should have been of great interest to the members because it concerned a new laboratory finding associated with a clinical phenomenon. He introduced the case report by saying, “I report some details that may seem non-essential, thinking that if a similar blood condition is found in some other case, a comparison of clinical conditions may help in solving the problem.”15 He described a black man with anemia, muscle pains and arthritis. He found the peculiarly shaped red cells characteristic of sickle cell anemia in the blood. He considered the possibility that the peculiar shape of the cells could be attributed to the suspending fluid but concluded that the finding “suggests more strongly that some unrecognized change in the composition of the corpuscles itself may be the determining factor.”16 Therefore, in 1910 he postulated in this clinical paper that there was something wrong with the material in the corpuscles. Thus, he essentially identified sickle cell anemia as the molecular disease that we know it to be today. This report was exactly in the mainstream of the thinking of the Association of American Physicians in 1910, and yet, there was no discussion. Perhaps, as is so often the case, the audience was not ready to accept a new idea.

A similar response followed his presentation of his classic paper on coronary thrombosis on May 14, 1912.17 He linked clinical observations to autopsy findings to make the point that coronary thrombosis was not always fatal and, therefore, it should be possible, and indeed desirable, to make the diagnosis during life. This paper, which was the second to be presented in the afternoon session, was discussed by only one person, Emanuel Libman of New York. Libman seems to have missed the point completely or, more likely, ignored Herrick’s paper and presented his own observations on coronary artery disease. Neither Libman nor anybody else realized that they were hearing something important and new. Means, in his history of the Association of American Physicians, records the comments of several people who were present that day.18 Libman, the only person who had commented, said, “I was there when Herrick read his paper, and I was the only one present who had enough knowledge of this subject to discuss his paper.” Dr. Worth B. Daniels of Washington asked Dr. Herrick to what he had attributed the long lag between the 1912 paper and the general ability of the profession to make the diagnosis of obstruction of the coronary arteries. Herrick replied,

You know I've never understood it. In 1912 when I arose to read my paper at the Association I was elated, for I knew I had a substantial contribution to present. I read it, and it fell flat as a pancake. No one discussed it except Emanuel Libman, and he discussed every paper read there that day. I was sunk in disappointment.19

Herrick believed in his own paper and put his new concepts into practice. He began making the diagnosis of myocardial infarction on patients he saw in consultation before the 1912 presentation and he talked about the clinical entity extensively at medical meetings in the middle west in 1910 and 1911. He described his “missionary work” on coronary thrombosis:

A few listened attentively, more, incredulously, the majority, indifferently. I recall an informal talk before a meeting of Western Surgeons in the Rush amphitheater, in which I stressed the resemblance of the accident to acute abdominal surgical conditions. I can still see the quizzical look on Charlie Mayo’s face as, from a front seat, he listened to, but was evidently not converted by, my sermon. About a year later, however, a well-known Chicago surgeon called me by telephone and said he had just been asked to go to Iowa to operate on a patient with gallstones. The history of the case, as related to him by the attending doctor, called to mind, he said, something he had heard me refer to in my talk to the surgeons. Had I any reprints of any article on the subject that I could rush to him? I furnished the reprint. Two days later he called me up and said the case in Iowa was a ‘dead ringer of your coronary thrombosis. You certainly saved one chap from an unnecessary, serious operation’20

In 1918 Herrick again spoke to the Association of American Physicians on coronary thrombosis, and on this occasion, he included some experimental work done by his colleague, Fred Smith, on occlusion of the coronary artery in dogs. He presented electrocardiograms taken on dogs after experimental occlusion and showed similar changes in patients. Herrick observed that work done in the laboratory on a dog attracts more attention than that done in the ward on a human being.21

Herrick had an excellent understanding of the natural history of coronary artery disease and put it into use in his practice. Evidence of this is found in a letter22 preserved in the Archives of The Johns Hopkins Medical Institutions. The letter, written in 1931 by Dr. Herrick, concerned Miss Jane Addams, the famous Hull House social worker, whom he referred to Dr. Thomas Cullen at Johns Hopkins for surgery. Herrick described Miss Addams’ cardiac history as follows:

In August 1926, while in England, she had an attack of very severe lower substernal pain that was constricting, went to the left side and left shoulder and then was accompanied by a great deal of weakness and prostration. Another attack occurred about forty-eight hours later. Miss Addams herself was evidently quite upset by it, feeling that she was seriously ill and the physicians took a rather grave view of the incident. Following this, when I saw her in Chicago, she had several slighter attacks that resembled rather closely mild angina. I could not get away from feeling that she had had a coronary accident in England and that the other cardiac symptoms were the aftermath of this.
He also noted the appearance of a murmur that had not been present before and described the electrocardiogram as showing left ventricular preponderance and nothing of the QRS in lead II.

This letter also provides evidence that Herrick remained a complete physician and his clinical curiosity extended beyond the heart. At the conclusion of this same letter of referral of Miss Addams, he added a postscript: "I have imagined that I could feel something rather firm on palpating over the lower abdomen in the center and to the right. Am I right?" Herrick traveled from Chicago to Baltimore to witness the operation, which indicated that he was indeed right.

The question remains: Why did it take medicine so long to recognize the contributions Herrick had made? Possibly Herrick was not a good speaker and did not make convincing presentations before a large audience. In his book, *Memories of Eighty Years*,

he devotes some attention to the problems of scientific presentation. He observed that "Success or failure was not necessarily dependent on the time taken in preparation." He cites a particular presentation on which he worked very hard that was a failure because "I showed too many lantern slides, with extemore comments; I overran my time by twenty minutes." He recognized the importance of showmanship in making a medical presentation:

There are times when a speaker who is filled to the brim with his subject — "supersaturated", as the physical chemist puts it — does well to ignore the stereotyped, orderly memorandum that he has made out and to deliver his message with enthusiasm and abandon, perhaps changing his plan while on his feet and using language that is inspired by the impulse of the moment.

Although there may be some question about his ability as a lecturer, there is no doubt about Herrick's ability as a clinical teacher. Everyone who knew him attests to this and I will leave to your imagination a colorful description of the presentation of a patient before a class of students to make the point that minor amounts of hemorrhoidal bleeding can cause severe anemia.

Herrick was a great lover of Chaucer and read everything Chaucer ever wrote, a topic covered by a previous Herrick Award recipient, Dr. J. Willis Hurst.

In 1931, Herrick was asked to give an after dinner address at the annual meeting of the Association of American Physicians and chose as his title, "Why I Read Chaucer at Seventy." The published version of this speech is 14 pages long and it contains over 200 lines of verse quoted directly from Chaucer. It is an erudite treatise on the appreciation of Chaucer, but it might have been a bit tedious as an after dinner address. There is no record of the reaction of the audience.

Herrick's explanation of why he reads Chaucer at 70 is a delightful argument for the importance of physicians having a hobby or having some interest other than medicine. In support of this argument for physicians with broad interest, Herrick recounts an incident which occurred during the meeting of the Association of American Physicians when he presented the after dinner speech on Chaucer. A wife of a colleague of Dr. Herrick's overheard two young physicians discussing the evening program of the Association which was to be Dr. Herrick talking about Chaucer. One of the young men was heard to remark, "Well, I know who Dr. Herrick is, but who in hell is Chaucer?" Herrick took this to indicate that there was a serious lack of cultural background in the physicians of the day and made a strong case for a liberal arts education as a background for medicine.

Herrick received many honors during his lifetime. He was President of the Association of American Physicians in 1923, and in 1930 was the sixth recipient of the Kober Medal, the highest award of the Association, which had been presented in prior years to Hideyo Noguchi, Theobald Smith, William H. Welch, Victor C. Vaughan and George R. Minot.

The medal was bestowed for achievement in scientific medicine. Dr. Kober, in his presentation address, describes Dr. Herrick as having "very greatly enriched our knowledge of diseases of the heart, blood, and blood vessels." Herrick, in his acceptance of the award, said that he feels sure that the award was given to him because he "represented the clinical side of medicine and they wished to put the stamp of approval on creditable work done by clinicians." He was proud of his status as a clinician who had achieved distinction through hard work and self-education. His own view of himself in 1939 at age 78 years is reflected in his comments on the invitation he received to deliver the principal address at the 50th Anniversary of the opening of The Johns Hopkins Hospital. He states,

There was a peculiar pleasure at realizing that they had selected as their speaker not some leader in medicine from the East but a physician from the West, who was, moreover, a graduate of Rush College which, in the opinion of some of the high-brow critics of the time, was unworthy of being rated as a first-class medical school.

We will never know why so much time passed before the true significance of the sickle cell and the myocardial infarction papers was appreciated, but that is not important. Herrick was recognized for his qualities of leadership in medicine, which outshone his specific scientific contributions. He was a leader in clinical science and insisted that the logic of science should be applied to clinical medicine. He showed by example how to collect observations on patients, analyze the data critically, and reach important conclusions about human disease. He openly criticized those whose approach was less precise. He participated fully in medical organizations and was never afraid to speak out when he disagreed with the leadership.

Although primarily a clinician, he believed strongly in the importance of science as the basis for medicine, and never questioned its relevance. In Herrick's time, the new science was chemistry, now it is molecular
biology, but the message is the same. We would do well to adopt his philosophy of the balance of science and humanism in medicine as summarized when he said that the physician must have a dual personality: scientific toward the disease, but humane toward the patient.

Acknowledgment

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A parlous state of storm and stress. The life and times of James B. Herrick.
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