



Surgical Mentorship of John Homans by Harvey Cushing: The Untold Story

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What a tremendous honor it has been to serve as the president of the New England Surgical Society this past year. One can never aspire to a leadership position in this Society, and some might have noted my surprise when my name was announced at our business meeting 2 years ago. Close to apoplexy, I remained stunned and could only offer the following words, “If only my mother and father were here today.”

Most important to me is that our Society has provided members and guests opportunities to meet surgeons from other institutions and present our surgical experiences, and given us an opportunity to comment on the presentation of a colleague in a collegial environment. In recent years, the format offers our residents often the first opportunity to speak at a venue outside their parent institution. Since my first meeting and becoming a member in 1978, I have witnessed the transforming growth of the New England Surgical Society with the addition of the Scholars Foundation, which supports the Scholars Research Grant, the American College of Surgeons, New England Surgical Society Health Policy and Management Scholarship, the Spring Resident and Fellow Research Presentation Day, the annual Samuel Jason Mixer Lecture, the Nathan Smith Award, and the number of presentation awards that we will be announcing at our dinner tonight.

You heard earlier today that the society “provides an environment where members may develop friendships with other New England surgeons who share their high professional standards.” I would like to cite 3 personal experiences in which the New England Surgical Society created substantial personal opportunities for collegiality and friendship.

The first time I learned of the organization was shortly after arriving at Yale as a very young faculty in pediatric surgery. Our 2-person section headed by Dr Larry Pickett was located in an old surgical amphitheater in the Farnum

Building that we shared with the much larger cardiothoracic section. Less than 2 weeks after my arrival, Dr Bill Glenn, the revered head of cardiac surgery and future president of the New England Surgical Society, approached my office and invited me to lunch at Mory’s, a favorite meeting place for Yale alumni and faculty. Trying not to be overwhelmed and speechless, I was impressed with Dr Glenn’s gracious invitation.

The lunch went well and I decided to ask him, “How can I succeed at Yale?” He mentioned 3 factors: “a supportive wife, institutional support, and an opportunity.” I knew I had the first as my wife Janice, who continues to sustain me over the years of marriage. The second and third I was not certain were going to be easy to achieve. It was then that he mentioned that the New England Surgical Society would provide a young academic surgeon the opportunity to present his work and a stepping stone to the national stage. This lunch led to a long personal friendship with Bill Glenn and the advice I never forgot.

In 1978, I was to become a new member of the New England Surgical Society. The meeting was held at the Balsams Grand Resort in Dixville Notch, New Hampshire, a good 6-hour drive from New Haven. Shortly after arriving at our room, the hotel operator announced that we had an emergency call from our babysitter and to promptly call home. Fearing the worst, I heard that my widowed father had suddenly died in a public place and the police required me, as the next of kin, to pronounce identification. I notified Drs Lindenmuth, Jack Cole, and Larry Pickett that I had to leave and miss the initiation ceremony. Each had sponsored me for membership and mentored my professional career. Now they came to my emotional support, persuading me to wait, as nothing could be gained from a long overnight ride home. Their friendship and collegiality are a lasting memory.

Over the years I have had the good fortune to present our experiences with a number of pediatric surgical subjects, including neonatal surgical care, esophageal atresia, congenital cystic pulmonary malformations, and necrotizing enterocolitis. Today, each could be the subject of a talk on the tremendous success pediatric surgeons have achieved in caring for these challenging conditions. As was the custom at the time, the author

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had the privilege of selecting a primary discussant outside the parent institution. On more than one occasion, I asked Dr Hardy Hendren to discuss my paper. Here's what he would say: "Meet me before your talk and I will tell you the questions I will ask." This opportunity not only enhanced the value of the discussion, but provided a wonderful opportunity for continued friendship and collegiality over the years. I heartily recommend this approach to presenters and discussants.

Many of you have similar personal examples of surgical mentorship leading to lasting friendship and share them with your students and colleagues. Mentoring takes many forms, but always has a few basic characteristics. These include the development of talent, the teaching of skills and knowledge, assistance in defining goals, and sharing of social and professional values. Much has been written attempting to create a road map for developing a successful surgical mentoring program. Examples include "Mentorship in Community-Based Residency Program," "Mentorship in Surgical Training: A Systematic Review," and "Key Tenets of Effective Surgical Leadership."¹⁻³ Here is my perspective. Often finding the mentor to guide your career comes unexpectedly and cannot be controlled by process or ordination. Let me give you an example. A number of years ago, the medical school leadership decided to have incoming first-year medical students, usually 5 to 7 in a group, meet on a weekly basis with a selected member of the faculty interested in graduate medical education as part of an orientation to clinical medicine. This was to be an open-ended conversation on wide-ranging issues that, it was hoped, would lead to long-term friendships with faculty and students. Although initially successful as an orientation, students eventually developed bonding relationships with other faculty, as their choice of career evolved and the initial goal set for a more permanent relationship with the potential mentor failed. Eventually the program was dropped, as it became apparent that mentoring was highly personal and could not easily develop in a group setting.

A recent study⁴ characterizing the existing mentorship programs in the US shows that only half of Departments of Surgery have established mentorship programs, and most are informal and unstructured. The authors point out that failure to establish mentorship programs results from multiple barriers, including time commitment for the mentor and the lack of substantive reward incentives, such as salary incentives or academic recognition. The long-term result is the recognized decreased interest by graduating medical students to obtain residency training in general surgery. Alternative approaches are needed to secure the future of our specialty. Given these constraints,

we depend on interpersonal relationships in selecting a surgical mentor. Often the first spontaneous interaction between a student or resident and faculty or staff can lead to a secure, or mentored relationship built on mutual trust and sharing of long-term goals. This was the case with me and led to my decision to become a pediatric surgeon. During my PGY2 year, I was assigned to the pediatric surgical service and told to assist Dr Thomas Santulli, the chief of the service with the repair of an inguinal hernia in a small child. Dr Santulli had the reputation of being austere, not easily approachable, and a man of few words. Despite this, he was highly respected, very thoughtful in patient care, and a leader in the field of pediatric surgery. When I approached the scrub sink, standing next to Dr Santulli, I decided to introduce myself, stating my name and that I would assist him. Tom, as I got to know him later, turned to me and said, "Thank you for introducing yourself to me, and after the case come with me to see a new baby born with imperforate anus." Ano-rectal malformation was his interest and he wanted to share his knowledge with me. Tom taught at the bedside and transferred his enthusiasm to the residents. This interaction led to a long-term mentored relationship, culminating in my being the Secretary of the American Pediatric Surgical Association the year Tom was the President.

Tom was my senior mentor, a person many years older than me, that I respected because of his leadership position at the hospital and because I knew that his peers at other institutions also held him in high regard. He was a nationally respected pediatric surgeon. At the same time I sought his wisdom at rounds and conference, there was a distance maintained by seniority and only bridged over the years. A junior mentor has a different relationship with the mentee. Clearly, the junior mentor is at a more advanced stage in knowledge and position, such as a senior resident or young faculty. Such was my experience when Dr John Schullinger became my junior mentor at Babies Hospital. He was the "go-to" surgeon for the Fellow during my training and subsequently a close friend—a friendship lasting more than 50 years. From him I learned medical ethics and observed the doctor, family, patient responsibility and hands-on care of the child. He taught me to sit when speaking to a family.

The New England Surgical Society serves as an example of how a professional organization has mentored young surgeons by offering opportunities to residents in training and new members to present their work in a collegial environment where a positive critique is given with an opportunity to respond. That opportunity has significantly increased in the past 40 years of my own membership. In 1978 there were only 23 ten-minute presentations,

the great majority by senior members reporting on an institutional or personal experience. This year there are 70 contributions, including 40 eight- and 3-minute presentations, as well as 41 posters. The great majority of the presenters now are surgical residents or medical students who benefit from the discussion by the senior members. In this way, the New England Surgical Society has transformed to become a mentoring surgical society that places high value on more junior surgical education as a primary mission.

Storytelling is part of our great tradition and is passed on during the course of surgical training. These stories inspire by showing that surgical mentorships can lead to strong partnerships and creative accomplishments. Consider the following well-known examples of surgical mentorship: Halstead and Cushing establishing the core basis for structured surgical training; Jonathan Rhoads supporting Stan Dudrick in the laboratory leading to modern intravenous nutrition; William Glenn encouraging a Yale medical student William Sewell in his thesis requirement by building the first animal model for extracorporeal cardiac assist using only the motor from an erector set and pieces of glass tubing and rubber connections, now housed at the Smithsonian Institute; Michael Harrison mentoring Diana Farmer in basic fetal surgical techniques that led to her Management of the Myelomeningocele Study, called the MOMS,⁵ showing that fetal intervention significantly reduces the incidence and severity of severe neurological defects with myelomeningocele. Farmer is an inspiration for women interested in becoming surgeons and assuming academic leadership positions. Her success answers in part the question raised by Keith Lillemoe⁶ in his Presidential Address to the American Surgical Association last year that “Surgical Mentorship: A Great Tradition but Can We Do Better for the Next Generation?” Last spring, Farmer was our visiting professor and, following tradition, several of our surgical residents presented their research experience to her. In what was an “aha” moment for me, all 5 presenters were women, all potential future leaders in surgery. Yes, we can do better. The New England Surgical Society can also do better by creating a forum for strengthening women and diversity leadership in our Society. After due consideration, I formed a task force of our senior membership to offer recommendations about enhancing program development, membership, and leadership selection to achieve the goal of fairness and equity. Success will lead to stronger partnerships and creative accomplishments—I look forward to their recommendations.

For all of the well-known and oft-retold stories of surgical mentorship, there are many that remain untold and largely unknown. Your own story might be an

excellent example. My talk centers on the previously untold story of the surgical mentorship of John Homans by Harvey Cushing. Listen for evidence of the development of talent, the teaching of skills and knowledge, the assistance in defining goals, and sharing of social and professional values. First, a disclaimer—I am not a historical scholar nor have I ever studied the career of these 2 men in any serious fashion, but the opportunity to understand the relationship came in an extraordinary way. Let me explain. In the fall of 2016, the Yale Medical Library announced that the school was celebrating the 75th anniversary of the dedication of the Whitney/Cushing Library and that a new exhibit would be available in the corridor leading to the Cushing rotunda. The exhibit included a standing life-sized cardboard image of Harvey Cushing along with the stated opportunity to take a photograph standing alongside Cushing. I must admit that I was too intimidated by the Cushing presence. Many, however, took this invitation seriously, and cell phones were always out.

The exhibit case also included a copy of the invitation to the dedication ceremony of the library in June of 1941. The primary dedication speaker was John Homans. Not being a medical historian, I was surprised to see Homans’ name linked so closely to Yale. What I knew was that Homans was a Boston surgeon, that Homans sign was a positive indicator of a deep venous thrombosis and, having been a victim of that disease in my early years, that I was fortunate not to have required the sapheno-femoral venous ligation that he recommended. Homans was an inspiring surgical teacher and innovative vascular surgeon, the descendent of a distinguished family in American surgery.⁷ Any attempt to have an in-depth conversation about Cushing would be impossible, but all of us here at Yale knew the “folklore” of his “brain collection” that survived the basement of the medical school sub-basement and the transfer of his personal memorabilia, now housed in a small museum in the depths of the library itself, a “must see” on any visit to the library.

The majority of Cushing’s personal correspondence was carefully preserved and transferred to Yale Medical School at the time of his departure from Boston in 1933 and currently in the care of the librarian of the Yale Historical Library. I decided to examine the bond between Cushing and Homans and answer the following questions: How did the relationship come about? How was it sustained? And how was it finally culminated 2 years after Cushing’s death, with Homans being invited to be the dedicatory speaker at his library?

To study the life of Cushing is an enormous enterprise. In addition to his own books, original manuscripts, and recorded speeches, there are at least 3 complete

biographies, the earliest by John Fulton, Sterling Professor of Physiology at Yale and 1 of 3 major contributors, including Cushing, to the Historical Library Rare Book Collection. Fulton's biography, published in 1946, is the one with perhaps the most detail concerning Cushing's scientific contributions and his correspondence.⁸ The second, by Elizabeth Thomson, focused more on the personal life and personality,⁹ and the third by Michael Bliss, titled *A Life in Surgery*, published in 2005,¹⁰ described Cushing's family life, particularly with his wife Kate, and his interaction with peers, colleagues, and friends. I obtained copies of the books and began reading.

I found very little information about Homans in any of these books, aside from footnote references to their scientific collaboration. Each book had short phrase references relating to "pituitary research," "retirement celebration," and "Cushing's health," without mention of any personal relationship or possible mentorship of Homans by Cushing. The theme dominating the biographies was that Cushing strove for excellence in his advancement of the new field of neurosurgery, his clinical activities, and prolific literary activities. There was little time left for personal relationships with his colleagues, and even his family suffered when he placed work over their welfare. I turned to Dr Melissa Grafe, the Head of the Medical Historical Library, for further assistance. She explained that the Cushing collection was copied on microfilm, stored in folders, and placed in boxes. She extracted the information I wanted to study, beginning with the earliest correspondence of Homans with Cushing. To my surprise and delight there was a significant correspondence to read. This material was found in series 1, archive folder 705, dated 1894-1912 and 1932-1938. I also requested Cushing correspondence regarding the New England Surgical Society, and that was found in series 1, folder 1050, dated 1916-1938. The early correspondence was in cursive script and often difficult to read, but I used context for deciphering unreadable words. I simply hoped to find useful information on the relationship between these 2 men.

Their early personal history is remarkably alike. Cushing and Homans shared similar birthrights, 7 years apart in age and descendants of medical royalty as fourth-generation descendants of surgeons and graduates of Harvard Medical School. Their ancestors served as surgeons in both the Revolutionary and Civil Wars, Cushing's in Cleveland and Homans' in Boston. Homans graduated from Harvard Medical School in 1903, only 8 years after Cushing, and became a pupil in surgery, or apprentice, at the Massachusetts General

Hospital (MGH) and assistant to Maurice H Richardson, then the Moseley Professor of Surgery and the most prominent surgeon in Boston. Homans developed a busy practice, with an office on 164 Beacon Street, with an interest in the acute abdomen.

1898-1912: EARLY RELATIONSHIP

In February 1898, Homans, while still a medical student, read a publication by Cushing on typhus and wrote to Cushing about his own experience. "Dear Dr. Cushing, I have read your article, which you were kind enough to send me, with much interest. I think you were remarkably fortunate to save one of three. I have had one case, beginning as an appendicitis, later developing typhoid fever and death, followed by an autopsy. You know, I think there ought always to be an autopsy." Later in the letter he wrote, "Please give my regards to Finney and Thayer."¹¹ Clearly, Homans had an interest in establishing an ongoing communication with Cushing and by 1908 this resulted in Homans being invited by Cushing to a year of research in the Hunterian Laboratory at Johns Hopkins.

The focus of Cushing's clinical and research activity had switched from general surgery to neurological investigations, most specifically the pituitary, where he became interested in the metabolic complications ascribed to both under- and overactivity of the hypophysis. This interest led to the newer anterior approach to the gland, which Cushing developed in dog experiments and led to reduced mortality in human patients. Homans' year in Baltimore was largely in the laboratory, where he too performed the newer surgical approach and resulted in research collaboration with Cushing after he returned to Boston.

On July 22, 1910, upon returning to Boston, Homans wrote to Cushing about such a patient, "Some time ago I heard through Quackenbush, who has charge of the case of the cyst of the hypophysis, which Dr. Mixter operated on, that you wished to get the boy to come to Baltimore for study. I had a plan of my own about the boy and asked him to let me write you about it." Homans, however, shows deference to Cushing by stating later in the letter, "If we can arrange it, would you like to have the attempt made to have him come to Baltimore or whether or not to study him here?" "Let me know what you would like to have done and I will try to do it."¹²

Further in the letter is the indication that Homans had met Cushing's family during his time in Baltimore. "I wish you would let me know when you are going to Little Boar's Head (the family summer home in New Hampshire). I want very much to go down there and

take lunch with you and Mrs. Cushing someday. I can go in the automobile without upsetting the home, which I understand is much disturbed.”

Also, by 1910, plans in Boston had finally led to the construction of a new hospital based on the will of Peter Bent Brigham, which would be modeled on the Johns Hopkins Hospital as a teaching hospital, with dedicated beds for the instruction of medical students and house officers, and a resident training structure also modeled after that designed by Halsted at Johns Hopkins. To achieve that goal, the hospital trustees sought hospital leadership compatible with and capable of succeeding and achieving their stated goals. Dr Henry Christian was recruited from the MGH to become the physician-in-chief, and a vigorous attempt was made to have Harvey Cushing accept the position of the surgeon-in-chief. The recruitment process lasted 2 years, as Cushing was torn between offers at Washington University and an attempt to have him remain in Baltimore.

Cushing finally agreed to the Brigham position, but needed the support of local surgeons to assist in overseeing the building project, development of the laboratory, and recruiting house officers for patient care. Dr Christian was very helpful and identified David Cheever and John Homans from the MGH, and both agreed to join the Brigham once their services were required. Both were pledged to secrecy until the time of their eventual appointment. The secrecy eventually became a problem for Homans. Once Homans agreed to join the Brigham, he exchanged a series of confidential letters in the spring of 1912 with Cushing regarding his request that he tour the prominent European laboratories to gain further experience once the Brigham lab opened. Cushing agreed to support the trip, but in a letter dated April 2, 1912, Homans indicated that the budget Cushing offered might not be adequate to cover his expenses.¹³

Homans wrote, “I must say that I felt a little mortified when I read your last letter. I was far from intending to travel in luxury and rather intended to spend my own money for anything on basic necessities. I think myself that the figure was large, and it was only the uncertainty of my movements and the fact that I did not expect to be in touch with anyone else that made me feel like being on the safe side. Cut the amount down by all means to anything which seems to you reasonable.”

Further on Homans wrote: “I am very much obliged to you for your suggestion about Pavlov’s writings and I will get some more news from Dr. Benedict. Of course, I shall stay in St Petersburg until I am turned out if I am accomplishing anything, though Cathcart was very discouraging about the summer. After that I had much rather spend my time in England with any physiologist I can find than

wander about German clinics. In fact, I don’t want to travel about Germany at all. If it was not for your suggestions that I should spend some time abroad and Christian’s expectations, then I should never have talked of ‘65 days of travel.’” “I expect to come to Baltimore Friday or Saturday night of this week to be there for Sunday, as perhaps Saturday or Sunday. Indeed, I am very anxious to discussing plans with you, for I feel as if my trip was quite haphazard at present.”

Later, in April 1912, Homans wrote Cushing in colorful terms about the status of the new building that was to become the Brigham Hospital.¹⁴ “Your blessed hospital seems to be growing up well. The children’s hospital is starting. The whole medical school region is a mess of mud, tunnels, and carts, Negroes who say, ‘Hi, doc,’ and fences which hit you in the tummy when you don’t see them in the dark.” It was also clear that Homans was assigned responsibility of providing animals for the laboratory, which was planned to open before the hospital was completed. As noted earlier, this required the use of dogs, which were the preferred animal model for the neurological experiments Cushing planned, as well as Homans’ research projects involving the stomach.

The difficulties Homans encountered were mentioned in a note to Cushing: “The medical school is full of sneak thieves, and the dog-collecting business is thereby seriously hampered. For all of Winslow’s dog-catching friends being ex-convicts, the medical school janitor is also one. Our beloved superintendent recognizes them all and insults them most grossly. Damned hard on honest dog catchers, I call it, as being mistaken for sneak thieves.”

During the same time period, Homans expressed his frustration in finding high-quality candidates for a house officer position when the Brigham opened its doors for patient care. Homans wrote in April 1912, “Cheever and I have busied ourselves with the Brigham house officer matter with the following result: we can find no good man who has not already an appointment. We went over the 4th-year class and picked out about 30 of whom we knew something. Then we looked up their records in the school and examined them once again. Initially I interviewed a man named Hackett, about the best all-around man in the class. I found he was going into the public health service and was all settled. Even taking the dark horse, we did no better. So, unless you take a second- or third-rate man, there is no one who hasn’t an appointment.”¹⁵

Adding to the difficulties in the recruitment effort is this further comment from Homans: “Finally about the sub-junior house officer, we can’t get a man of any known merit unless we steal one from another hospital. I think that is definite. One may turn up, but I doubt it. After the first one,

you won't have trouble. We will do all we can." Recognizing that he was having difficulty in fulfilling Cushing's request, Homans wrote about potential solutions and offered the name of a spectacular candidate that might be interested in the Brigham position: "The result is that I am asking for further information. Of course, we could induce away some of the men who have made appointments, but we would naturally commit you to warfare, so to speak, with the MGH and Boston City Hospital. Of course, for appointments beginning, say, next March, we can get men who are finishing that year now."

"One is coming down to Baltimore in the mid of this week, a man named Elliot Cutler. I believe you met him on a steamer once. He is the popular, bright, enthusiastic type, stands well in his class, and all that, a good man, I think, in spite of the fact that life has been easy for him. I have not seen him, but he comes to me of his own accord to ask if I knew how he would try for a house officer position at the Brigham. I told him that as long as he was going to Baltimore, he had better ask you. I think he has an inquiring mind." Homans' recommendation of Cutler to Cushing was prophetic, as Cutler accepted the position at the Brigham after completing an 8-month tour of European laboratories. After training and a staff position at the Brigham, Cutler went to Cleveland to become surgeon-in-chief at Western Reserve, then returned to Boston in 1933 as Cushing's successor as surgeon-in-chief.

Before leaving on his long-planned overseas trip, Homans had to face the dilemma of timing his resignation from the MGH and shared his anxiety with Cushing. In early April he wrote, "I took out a subdural endothelioma the other day, and Dr. Mixer is down on me. I suspect this was Mixer's patient. I guess I shall lose my job anyway. With love to the family, Your most respectful subordinate."¹⁴ Later in the month Homans wrote, "Finally as to the MGH, I had to tell Washburn that I was going abroad, and so I told him all the facts. I offered to resign at once or do anything that the Mixters would consider proper, though Washburn was kind enough to say that he was glad I had such a good opening. I maintained that I had accomplished much here, but I had hoped they realized I had tried to."¹⁵

1913-1932: MENTORSHIP

Subsequent to his nearly yearlong trip to Europe, Homans returned to begin his new position at the Brigham, with Cushing joining him after the hospital was completed in 1913.

Once the doors opened, the hospital began to prosper under the clinical and teaching skills of Homans,

Cheever, and the newly assigned house officers. In the spring of 1915, Cushing agreed to head the Boston American Ambulance contingent, a voluntary military hospital stationed in Paris caring for British and French troops injured in the early stages of World War I. Back home Homans was left in charge at the Brigham.

On May 4, 1915, Homans wrote to the chief to bring him up to date because of his stay, "longer in Paris than you had expected" and "Wish to have some General Hospital news." Homans wrote a progress note with continuous deference to the chief and added a comment of interest to a pediatric surgeon: "I should say that the hospital has been running quite smoothly, and the activities in which you are particularly interested are at least keeping going as well as one would hope without your guidance and control. The Thursday visit has been well-attended and we have all been over to Children's, our faithfulness finally having been rewarded by the sight of the now-celebrated twins united in the pelvis region [a condition we now call an ischiopagus conjoined twin]. You will be very much interested in the problem of dividing them. I don't believe they are going to attempt it."¹⁶

"On the surgical side, we seem to have acquired tradition enough to keep things going right in your absence, though it sometimes strikes me that there is an indefinite slackness due to the absence of your control. It would be strange if your absence was not felt in many ways, but really I think that things have gone very well." Homans then goes on to describe the clinical activity and outcomes in more detail and offers his own recommendation to the chief: "We have had some disheartening experiences with post-operative pneumonia since you left, with several fatalities, which seems to me heartily unnecessary. It's all very well to blame the time of year, but we ought to be clever enough to avoid pulmonary infections. I am always inclined to blame myself and do in these instances. Perhaps we have got to be satisfied with less radical operating and more survival, if we don't have perfect results."¹⁶

These self-critical remarks are prophetic in the light of the current importance and emphasis on clinical outcomes and evidence-based medicine. Indeed, the founding fathers of the New England Surgical Society stated on February 5, 1916, only 10 months after Homan's letter, that the society "Strives to increase knowledge of the art and science in surgery, and to promote the welfare of patients"—A portion of the pledge our own new members agreed upon today.¹⁷

Three weeks later, on March 1, 1916, Philemon Truesdale, the secretary, wrote Cushing, "A New England Surgical Society of limited membership has been organized. At a recent meeting of the founders, your name was

presented and you were elected a charter member of the society.¹⁸ The following admonition from Truesdale to Cushing is also given to our new members, "That your acceptance will be implied a willingness to share an active interest in promoting the welfare of the society as a scientific body." Cushing's prompt reply contained a proviso, "That his work at the hospital and school would take precedence over all other interests that are less intimate and relatively less important," but Truesdale reassured Cushing that "due consideration would be exercised for the demands on his time."¹⁹

Despite these concerns of time allocation he could give to the society, Cushing agreed to discuss William J Mixer's presentation at the first Annual Meeting of the Society held in Boston in the autumn of 1916. The typed discussion of Harvey Cushing on "Tumors and Pseudo Tumors of the Spine and Cord" is found in the Yale archives, including the additions and corrections made in Cushing's own hand.

Cushing's return to civilian life after his time in France was short-lived, as the period of American isolationism ended with the US entering the war effort in 1917. Base Hospital #Five was organized largely through Cushing's efforts, and Homans became part of the Brigham group, traveling to Boulogne to care for the injured. With the armistice signed and the war effort ended, participants in Base Hospital #Five began returning home, some earlier than others. Homans expressed these thoughts to Cushing on February the 18th. "I never expected to be welcoming you home, but by the injustice of everything, I hit New York, at least I suppose it has been a week before you did. Welcome home anyway." He then added a recommendation only a friend could give to Cushing: "The most important is a bold statement of the fact that if you don't secure a long leave right off and go somewhere to bask in the sun with Mrs. Cushing, I shall regard you as a cuss, and I may add in a friendly way, a skunk. Perhaps that is really everything in a nutshell, and I believe I have said it rather well."²⁰

Homans' leisure time spent stateside came to an abrupt halt when Colonel Cushing responded by requesting that the Surgeon General issue "His discharge as early as possible, and that the reasons for this are that Major Homans is greatly needed in the hospital as the single remaining surgical attendant here is laid up with an infection, and Major Homans' services are especially needed for teaching purposes."²¹

Events occurring during the 1920s provide examples of how Cushing mentored Homans' career as Cushing devoted his own efforts to clinical neurosurgery and writing the Pulitzer Prize-winning book on Osler, leaving the field of general surgery to Homan, Cheever, and

their younger associates. The first example involves Cushing's interaction with the New England Surgical Society, where he had already indicated little interest in active participation. In October 1923, Cushing turned down an invitation to speak on "trigeminal neuralgia," as he had no time to think of it, "And fear that I shall have no time."²² In April of 1926, the Society again asked Cushing to present. On this occasion, Cushing sent a handwritten request to Homans: "Can't you find these folks a paper?"²³ but learned in fact that Homans was not a member as "for some reason or other, his eligibility to membership was in question."²⁴

Cushing investigated the matter and found that Homans had not submitted an application, but Ernest Wells, the new secretary, wrote Cushing in confidence that, "Unless the executive committee was very careful, we would be apt to elect the most persistent applicants, rather than the best,"²⁵ and it was for this reason that many Boston applications were held up pending some concerted motion by the Boston men. Cushing answered with a strong letter of recommendation, and not only was Homans selected for membership that year and participated in the meeting by performing a "wet clinic" on a patient with a common duct stone, but became an active member thereafter, also presenting at subsequent annual meetings of the Society. The star of the meeting was Cushing, who demonstrated the first successful use of electrosurgical coagulation in a patient with a large vascular myeloma. This story of the introduction of the Bovie is chronicled in a recent report by Walter Goldfarb,²⁶ our Past President, in a presentation to our Society.

Another example of Cushing's advocacy for Homans' career occurred in the late 1920s when Cushing urged Homans to edit a textbook of surgery based on the lectures given to the medical students and residents at the Brigham. After reviewing the first draft, Cushing recommended that each chapter begin with a historical summary of the subject matter. The book, titled *Textbook of Surgery*,²⁷ edited by Homans²⁷ was first published in 1931 and became a bestseller. Ironically, Cushing was asked to do the review in the *New England Journal of Medicine*,²⁸ where he self-importantly noted that most of the chapters contained an historical perspective that added to the value of the publication. Cushing praised Homans' effort but added his own perspective, "For here is a book about surgery to read the like of which to the writer's knowledge has not been produced in modern times." Later in the review, Cushing added "The single failing of the book, if one is to pick a flaw in a work so excellent, lies in the want of details regarding actual manipulative procedures of surgery; but obviously it was not intended to be on operative surgery; and after all,

the place to learn that part of the surgeons craft is at the operating table and not from written descriptions or pictures of procedures which are usually superseded before they come to be published." In September of 1934, Cushing added, "I judge that the textbook of surgery is booming, and I presume you will have to gird yourself and face another edition, are long." The book actually underwent 6 editions, the last in 1945, and became the standard text for the surgical community of the time.

During the years Cushing traveled extensively, spent summers in Europe visiting museums, giving talks by invitation, and began an earnest collection of rare medical books that eventually became the source of his greatest pleasure. In addition to hard work, he smoked cigarettes, subsequently developing nicotine-based claudication that limited his physical activities. By the end of the decade, Cushing desired to decrease his clinical work, and began planning for retirement, based on an agreement with the hospital that he would resign from his chief-ship at age 63. With that time rapidly approaching, many institutions hoped to attract Cushing and have him either extend his neurosurgical clinical expertise or develop his interest in the history of medicine. Finally, and after much deliberation and hesitation, Cushing agreed to return to his alma mater, Yale, as the Sterling Professor of Neurosurgery, but only in a teaching position without any clinical responsibilities.

1932-1939: THE YALE YEARS, MENTORSHIP BECOMES FRIENDSHIP

As the time approached for leaving the Brigham, Cushing became melancholy as he cleared out his office. Cushing acknowledged his concerns in a letter to Homans dated August 10, 1932, which show the evolution of the relationship from mentorship to friendship and trust. "Dear John, here's a series of papers that go back to a time when we were very young, and you did me the honor to come to Baltimore to spend a winter with me. It looks from these papers as though we must have started to write several books which never got published. It's sad to think of it, for we might have set the world on fire had we only had a little more time."²⁹ Tongue in cheek, humility, or true modesty about his own tremendous contributions is not clear, but a revealing close personal relationship had evolved.

Two goals remained for Cushing before he left the Brigham: The first, to do his 2,000th brain tumor operation, which he accomplished in 1933. The Brigham marked the accomplishment shortly after the operation with a ceremony, at which Homans presented Cushing with a silver cigarette case and a congratulatory telegram

from Henry Ford. Cushing had carefully preserved all of the brain specimens in formalin bottles, which were cataloged with the date of the operation and the patient's name. These were under the care of Dr Louise Eisenhardt, and eventually transported to Yale, becoming the "brain collection" at Yale that I mentioned earlier. Cataloging and transporting Cushing's voluminous correspondence was under the supervision of Madeline Stanton, his dedicated secretary.

Reports circulated that Cushing, during his melancholy period, attempted to abandon many of his papers, but were salvaged by Stanton before they were destroyed. Upon arriving in New Haven, Stanton worked on cataloging the papers and manuscripts in the library of the Sterling Hall of Medicine, a project continued by the curators of the library until Stanton's retirement. Cushing was exhausted by the time he left Boston, and was hospitalized in New Haven for several weeks during the winter of 1933-1934. Upon recovery, Cushing became active in the affairs of the Medical School and the Department of Surgery. He found comfort in knowing the new dean, Stanhope Jones, and the chairman of the Department of Surgery, Sam Harvey, because of their Hopkins connection many years earlier.

Cushing joined Stanhope Jones in the leadership cadre of the school as a senior cabinet, making many important guiding decisions and future directions. Cushing also participated in the teaching activities of the surgery department and special occasions with the medical students.³⁰ In early 1935, Cushing took on the responsibility of inviting Homans to visit New Haven as visiting professor, and organized the schedule for his 2-day visit. In a detailed letter dated April 5th, Cushing set up a customary tour of the campus, "Staff rounds from 9 to 11, your clinic at 12, for which Oughterson has gathered together some interesting vascular cases, lymphedema and so on, in which you can take your pick. We will probably lunch here at the school for which I would like to gather the old Brighamites who are here. Then at four, Oughterson has a tumor conference which he would like to have you conduct or at least sit in on, and feel like it and were not feeling too much pressed by the fact that you were giving your lecture at 8:15 p.m. before the medical society at the school."³¹

Cushing concluded "I hope this won't sound like an overcrowded two days for you." By current standards, this would tax the stamina of any modern visiting professor. The visit was a great success and Homans became well regarded by the Yale medical community. Several months later, Homan's surgical consultation was requested regarding a "severe recurrence of the circulatory problems in Cushing's left foot." He was in great pain and

developing gangrene of the left middle toe. After consulting with the Yale team regarding amputation of the toe, Homans suggested a digital sympathectomy to improve the local circulation and relieve the pain. This was carried out with initial improvement, but unfortunately the toe had to be amputated 1 month later.

In the spring of 1936, a crisis in leadership occurred in the department of surgery at Yale. Dr Harvey was hospitalized with a recurrent respiratory problem, presumably a reactivation of pulmonary tuberculosis and his doctors recommended a long-term stay at the Loomis Sanitarium for further treatment. Harvey offered his letter of resignation as chair but the dean, with the guidance and recommendation of Cushing, prevailed on Harvey to take only a "leave of absence." Stanhope Jones made an attempt to persuade Cushing to assume the reigns of interim chair, as the surgical faculty at Yale was young and inexperienced. Cushing refused, citing age and illness, but recommended John Homans as the best potential choice. Homans had been well received by the surgery faculty from his visit the previous year and was subsequently offered the position in a letter from Stanhope Jones in October 1936. The position called for his interim appointment as Visiting Professor of Surgery and Surgeon in Chief at the New Haven Hospital, a seat on the Board of Permanent Officers of the medical school as well as a bachelor's residence suite at Davenport College for a generous salary of \$1,000 per month and a total of \$8,000 for the period of his appointment.³²

The dean requested from Cushing "A little write up of Dr. Homans' career for newspapers and other publications."³³ Cushing's response is typical of his framing a recommendation with a historical reference by noting that Homans' father, John Homans III, was forbidden by regulation to perform abdominal operation at MGH because of the high mortality. Cushing noted "Nothing daunted, he fitted up an operating room in a house nearby and began removing ovarian tumors with such success, even before Listerian principles were understood, that the hospital authorities were obliged to withdraw their regulation and reinstate him. His surgical son, John Homans IV, is a man off the same piece of cloth."³⁴

As predicted by Cushing, Homans was a great success as a teacher and in organizing clinics for the medical students, as well as visiting with Dr and Mrs Cushing at their home on Whitney Avenue in New Haven. Much of the clinical teaching occurred in the Farnum amphitheater, where I had my first office in converted space 50 years ago. Homans' success as a teacher was described by Wiley Barker in his surgical reminiscence that his contributions were "Salty, pithy, tart, and sometimes near scandalous, but always to the point."³⁵ His personality pleased the

Yale staff. Homans wrote Cushing remarking with nostalgia about his time in New Haven. "I still feel very intimate with New Haven. Keep thinking of the problems and relations of all sorts connected with my temporary professorship and miss particularly seeing you and the various members of the surgical and medical staff to whom I had really become very much attached."³⁶

This affection between Yale and Homans was clearly mutual, as a portrait of Homans was commissioned by the school and now hangs in the main reading room of the medical school library. Commenting on the latter, Homans explained, "I expect to come to New Haven in the course of the next few weeks to look up Keller [the famous portraitist and dean of the art school] regarding the portrait on which he wishes to put some finishing touches and to say 'how do you do' to everyone. Let me hear from you. It will not sound unnatural to have me say that I am quite homesick for news of the place."³⁶ Cushing responded by citing "That everyone here misses you frightfully and your news that you may be popping down sometime to pay a visit rejoices us greatly."³⁷

Homans made good on his promise to return to New Haven to give a "small dinner in recognition of the kindness of everyone who assisted in the operation on the little girl with the hypertrophied adrenal gland." (Whether the enlargement was a primary tumor or the result of pituitary stimulation is unclear.) Homans coined the term for the group he invited "The Adrenal Society of New Haven"³⁸ and invited Cushing who reluctantly agreed to "Be included only on endocrinological grounds."

Over the years, Homans became very active in the programs of the New England Surgical Society and at the annual meeting in Boston in 1938, was selected to be the next president of our society, Cushing had sponsored for membership. Cushing undoubtedly knew of his selection and pleased of the choice, although no written record of recognition is available. Cushing was in declining health with more extremity pain and intermittent cardiac angina. His participation in the affairs of the New England Surgical Society were minimal and when asked to provide a reference for a Connecticut candidate to membership that he did not know, offered his resignation. Cushing's name no longer appeared as a member of the Society in the 1939 program book, but Homans' choice of a topic for his 1939 Presidential Address "Minor Causalgia: A Hyperesthetic New Vascular Syndrome"³⁹ had Cushing's medical problem in mind.

The initial sentence of the transcribed address states "There is a very peculiar circulatory disease and a symptom complex which affects the extremities and which is marked especially by exaggerated sensitiveness of the skin. This hyperesthesia's such that any touch excites a

sort of pain that the patient very much dreads”—a perfect description of Cushing’s “symptom complex.”

Another irony difficult to explain other than in a metaphorical sense, is that the meeting was held at the Salem Hospital beginning September 29th, just 5 days before Cushing was stricken with extreme chest pain and hospitalized for a few days in an oxygen tent before succumbing on October 7, 1939, only after having heard that Yale had agreed to proceed with the construction of the Yale Historical Library within the Sterling Hall of Medicine. The final step in Cushing’s dream, to have the major book collections of Arnold Klebs and John Fulton join his own in creating a major historical and medical library resource was accomplished.

1939-1941: THE LIBRARY DEDICATION

The final chapter in the lifelong relationship between Homans and Cushing unfolded as the university planned the dedication of the medical library in the spring of 1941. The idea was to unify the historical and general medical library as a single library complex and have the ceremony of the dedication on June 15, 1941, just before Commencement. John Fulton was appointed chair of the library dedication committee and, in that position out of consideration to be the principal speaker at the ceremony. Arnold Klebs remained in Switzerland and was unable to travel because the war in Europe had begun.

Fulton assumed responsibility for selecting the dedication speaker. In his letter to the dean in March 1941, Fulton proposed several possible speakers, including some donors, and Senator Fred Wolcott, a Yale 1891 classmate of Cushing. Fulton concluded, however, that “John Homans might be the best person for principal speaker since his interest would encompass both divisions of the library. He would do it with enthusiasm and dignity.”⁴⁰

Homans had clearly made a very positive impression on Fulton and the Yale faculty and of course, was a trusted friend and colleague of Cushing. Homans’ response to the invitation was touched with his usual humility, stating “I am very doubtful as to whether I am able to do such a thing that is whether I can do it acceptably.” But he added in his own letter of response “I shall be very glad to try.”⁴¹ There followed a series of interchanges between Homans and Madeline Stanton, Cushing’s long-time secretary, and in her new position as secretary to the historical society, Homans sought factual information and anecdotes to be used in his address.⁴²

The program of the dedication ceremony included an introduction, the presentation of the gift for the rotunda from the class of 1891 in memory of Harvey Cushing, with acceptances of the gift for the University and for

the School of Medicine by the President and Dean. The ceremony was to be held in the newly completed Historical Library. Each speaker’s name on the program was followed by the proper title and affiliation to Yale. The address to be given by John Homans simply stated that he was a “Surgeon,” without indication of his Harvard title as Moseley Professor of Surgery, his prior contributions to Yale, or even identifying him as a colleague and friend of Cushing. Whether or not this was by planned design or even oversight was not lost on me in knowing the close collaboration of these 2 men over the years. There is no evidence, however, that Homans ever felt slighted by the omission, but the Yale Faculty in attendance may have recognized it. Homans was introduced by Wilmarth Lewis, Chair of the Yale Corporation Committee on the Library, who noted that “our next speaker has many friends at Yale, made when a few years ago he spent a year here on our faculty.” With that introduction the audience sat back awaiting Dr Homans speech, but were perplexed by his initial appearance, including holding the manuscript at arm’s length and visibly blinking to read the words. Was this some unexplained indication of his wit or a statement about his relationship with Cushing? Neither was the case, as was explained in Homans’ memorial statement published in the *Harvard Medical Alumni Bulletin* for 1955. Apparently, when Homans donned his academic robe for the procession, he laid aside his coat containing his glasses and was forced to read his address with one good eye.⁴³

Homans began his talk by quoting Cushing’s remarks at the dedication of the Welch Library at Johns Hopkins, then followed with Cushing’s impression of Homans that he “Felt very dubious about my ability as a speaker and was accustomed to regard me with an air at once anxious and critical whenever I rose up in his presence.” What followed, however, was eloquent. In first describing the origin of the historical library and later commenting on the physician’s responsibility to their patients. Homans quoted a passage of Rudyard Kipling, which Cushing loved. Kipling addressed a group of medical students, “Telling them of their own remarkable position in the world, the powers they might yield as a balance against their heavy obligations.”⁴⁴

Later in his address, Homans recalled that Cushing “Could not give up his four hours a day at the operating table and his painstaking prolonged examinations and dressings of patients. When I objected once to the time he gave to the final stages of an operation he replied that if he left things to his first assistant, the first assistant passed them on at once to the second, who handed them down to the third, who gave them over to the operating room nurse who left them to a probationer if she could

find one.” Whether Cushing was being facetious we will never know.

The message to the audience, however, was clear that Cushing’s primary responsibility was to his patients and his library efforts would only occupy the remaining time and energy that remained. Homans concluded that “We are gathered to thank him for the gift of his beloved books to show our affection for his memory and to approve and honor his attainments. Whatever honors the future may attach to his name, surely he would have liked this offering the best.”⁴⁴ The speech was a powerful testimonial to the admiration and respect Homans had for Cushing.

CONCLUSIONS

In preparing this talk, I included as much of the written word available from the archives that would enable us to grasp the relationship between these 2 men. I wanted to understand how the relationship between Homans and Cushing evolved over the years and why Homans was invited to give the Dedicatory Address at the library’s inauguration ceremony. Cushing’s role as a mentor for Homans is obvious. Cushing encouraged and motivated Homans, promoted his independence as a surgeon and educator, and rejoiced in his success. Homans, for his part, recognized the need for mentoring, worked hard to be successful in his own right, and maintained the balance between Cushing and himself that slowly evolved into a lifelong friendship. Much of this we recognize in our own careers, first as mentee then as mentors to our students trainees and colleagues. Much more information exists, including portions of their once-lost exchange of letters that I simply could not include because of time and space limitations. Consider how much we miss today when our personal communications can be deleted with the touch of a finger and enter the electronic “cloud” leaving official documents and cold type that speak only of duty hours, obligations, job responsibilities, and salary reimbursement. Much of our personal history is lost. I’ll leave to you to decide whether or not the relationship gleaned from the exchange of letters as simply collegial correspondence or a friendship between these 2 New England surgeons who shared the high professional standards exemplified by the New England Surgical Society.

FINAL THOUGHTS ON SURGICAL MENTORSHIP

The untold story of the surgical mentorship of John Homans by Harvey Cushing leads me to these final thoughts:

1. Mentoring begins by being inquisitive and rewarded with opportunity.
2. Deference to your mentor’s advice is appropriate but not required.
3. Providing your mentor truthful reporting is essential.
4. Sharing accomplishments/disappointments strengthens relationships.
5. The mentor rewards the mentee with support, advice, and occasional criticism.
6. Mentors support professional advancement opportunities.
7. Mentoring becomes friendship and the sharing of professional goals.
8. Mentees reflect on their lifelong importance to the mentor.

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