

FREUD, BIOLOGY, AND THE HISTORY OF A PSYCHIATRY

POWERHOUSE | BY EDWIN KIESTER JR.

DRAMATIC LANDING

hen Harry Mehalic was a University of Pittsburgh psychology major in the late 1940s, the highlight of his abnormal psychology class was a visit to Western State Psychiatric Hospital to view firsthand the unfortunates whose illnesses he had studied in class. One by one the professor brought out the patients, after first identifying them as "simple schizophrenic" or "manic-depressive" and listing their symptoms. "Our



No other university comes close to Pitt i NIMH funding.

next patient is hebephrenic schizophrenic," he would say, describing her delusions and what he called "inappropriate emotional responses," then usher out a young woman in a shapeless gray hospital garment who would giggle out answers to simple questions like, "What is your name?" and "How old are you?"

COLOR PHOTOGRAPHY | JEN URICH
BLACK AND WHITE PHOTOGRAPHY | MERVIN S. STEWART



Ward rounds, 1962

Some patients were clearly disturbed, their answers obvious fantasies, Mehalic recalls, while others gave rational answers and appeared "as normal as you and me." One student asked how long a patient had been hospitalized. A matter of months, the professor said, but she had actually returned several times. What treatment was the patient receiving? another asked. Not much, it seemed. Electroshock was almost the only treatment available for some conditions; it succeeded temporarily, but patients often relapsed. For extreme cases there was lobotomy. Otherwise the profession couldn't prescribe much except patience—and confinement. Patients' prospects looked bleak; you didn't need to be a health care professional to see that. (In fact, Mehalic's career took him into the cosmetics industry.)

A great deal has changed at the 11-story, buff-brick building on O'Hara Street since those days of limited treatment and what Thomas P. Detre, Pitt's former senior vice chancellor for health sciences, termed "descriptive psychiatry" in a recent interview. The hospital has been renamed the Western Psychiatric Institute and Clinic (WPIC), and the building itself has become Thomas Detre Hall. Pitt is now a powerhouse of modern psychiatry. Today, no university in the country comes close to its \$60 million in grants from the National Institute of Mental Health

(NIMH). A torrent of research now pours out of WPIC, covering areas from psychopharmacology to neurobiology to the genetics of mental disorders. And the history of WPIC in the second half of the last century mirrors the marked transformation of the field of psychiatry itself in that time.

The idea of establishing a state mental hospital associated with the University for research and training purposes was born in 1924, at the emphatic suggestion of the state's Department of Welfare. The world was just beginning to acknowledge mental illness as a diagnosable and potentially treatable family of disorders, influenced by the remarkable theories of Sigmund Freud and his disciples in Vienna and the earlier writings of William James. Pennsylvania had already opened several mental hospitals, but the state did not actually authorize WPIC until 1931, even though Pitt willingly offered the land. In the depths of the Depression, the state had little money for constructing, let alone outfitting and supporting, a hospital. Not until 1938 was ground broken for the hospital; four years passed before it was equipped and staffed, with Grosvenor B. Pearson serving as the first director. The initial 160 patients were admitted in November 1942.

Those early years were difficult, according to a remarkable WPIC history written as a doctoral dissertation by Marcia Kramer Schachner in 1986. "There was not a book in the library, not a dinner knife nor fork in the dining room, not a piece of wood nor a tool in the carpenter shop," Pearson said of those beginnings. The professional staff was primarily part-time, and the few trained psychiatrists were rapidly being swept into the military.

With many soldiers suffering from shell shock, the war's end revived interest in mental illness and the need to seek and understand its causes as well as treat it. Psychology and psychiatry became recognized as academic disciplines. Dean William S. McEllroy launched an effort to elevate Pitt academic medicine to the front rank of medical research. He asked William Menninger of the Menninger Clinic to evaluate the university's offerings in psychiatry. Menninger endorsed the WPIC/Pitt affiliation, and recommended a strong emphasis on research. In 1951, the University leased the build-

ing for a token \$1 and took over operations while the state continued to provide funds. The University and the institute were charged with missions in psychiatric research, training, and clinical services. Almost simultaneously, Pitt announced the appointments of three prominent scientists to lead the hospital and department into a bright new era. On Menninger's recommendation, the wellregarded psychiatrist Henry Brosin was hired from the University of Chicago to be department chair and director of the hospital; Arthur Mirsky, a noted psychiatrist, one of the first also to be an expert physiologist, would become head of research; and Benjamin Spock, the renowned author of Baby and Child Care, came from the Mayo Clinic to direct the child psychiatry program.

Freud's ideas had spread like wildfire. Psychoanalysis became popular, even chic. WPIC went right along with the trend.

"It [psychoanalysis] was fashionable and attracted the better minds," Brosin told Schachner years after he left Pitt. The way to recruit the best students and faculty, he reasoned, was to organize an institute and become a leader in the field. Francis Sargent Cheever, who held the position then known as vice chancellor for health professions from 1967 to 1974, agreed. He told Schachner, "Psychoanalysis was very much in the saddle, and that seemed to be the way to get to the top."

WPIC thus became a bastion of psychoanalysis and psychoanalytically informed (psychodynamic) psychotherapy training. (For example, residents were trained to support and talk with very psychotic patients in order to build their trust and treat them.) When the Pittsburgh Psychoanalytic Institute was officially established at WPIC in 1964, the faculty included about 10 psychoanalysts. "I would say 80 percent of the faculty were psychoanalysts, and their thinking was predominant," Detre says today of that earlier period. Much of the nursing staff was also psychoanalytically oriented, along with Spock (who left in 1955 after a lengthy clash with Brosin).

In some circles beyond O'Hara Street, however, psychoanalysis gradually was becoming less "fashionable." In 1952, the drug chlorpromazine had been introduced for treatment of schizophrenia; later, about 1971, US doctors began to prescribe lithium for manic-depressive illness, but it already had been found to be effective abroad.

These new ideas began to make headway at WPIC, too, recalls Mervin S. Stewart, MD '53, now a volunteer clinical associate professor of psychiatry. Stewart was an intern from 1953 to mid-1954 at Montefiore Hospital, finished out 1954 as a resident at WPIC, served two years in the army, then returned to Pitt to complete his psychiatric residency from 1956 to 1959. He recalls that drugs were already in use at WPIC in 1955, when he left, and were in greater use, along with newer forms of psychotherapy, during his residency. He himself conducted family and group therapy for multiple sclerosis patients as a research project.

Still "The basic orientation remained psychoanalytic," Detre says of the period before his arrival at Pitt in 1972. "The psychoanalysts had a strong belief that all mental illness was basically caused by some serious psychological disturbance, and the therapy had to be psychotherapy. . . . There were here at that time very, very few people interested in the

stepped down in 1969 at age 65, making it clear in an interview that it was not his idea. (Two years later, Mirsky retired, too, after a long period in which he and Brosin ignored each other. Mirsky's retirement closed his semi-independent Division of Clinical Research.)

WPIC's Jack Wolford, who directed teaching programs in other state hospitals, was among those who served as interim director—"or some such title," says Wolford, now professor of psychiatry emeritus.

Enter Thomas Detre—lured from Yale to become director of the hospital and chair of psychiatry. Detre had been struck by the future of psychoactive drugs back in 1954 during his first residency, at Mount Sinai Hospital in New York. Soon after arriving at Yale a few years later, Detre introduced the concept of psychopharmacological management of patients. By the late 1960s, he had risen to chief of psychiatry at Yale-New Haven Hospital. When four consultants prominent academic psychiatrists who included Fritz Redlich, Detre's dean at Yalerecommended that Pitt choose someone immersed in biological psychiatry to lead its psychiatry department, Detre was at the top of the list of candidates. As the new chair, Detre brought with him other like-minded academics, notably David Kupfer, who would direct research efforts, and 26 other researchers; the lot was soon nicknamed "the Yale Mafia.'

Detre has famously recalled a conversation with a Yale colleague when he announced he

A great deal has changed since those days of limited treatment and what Thomas Detre terms "descriptive psychiatry."

Although these psychoactive drugs did not "cure" the disease, they often alleviated symptoms. The new treatments allowed patients to be released from custodial care, eventually, by the mid-1970s, emptying many of the mental hospitals. And, while the exact mechanisms by which these medications achieved their effect were not completely understood (and in the case of lithium, still are not), their effectiveness obviously pointed to some underlying chemical and biological component to illnesses once thought primarily psychological. Research began to focus

on identifying the neurobiologic and biochemical roots of mental illness. The shift to treatment by medication also gave rise to a new specialty, psychopharmacology.

At the same time, psychiatrists were developing new forms of psychotherapy—short-term approaches, targeted to patients' immediate problems. Doctors often used these therapies in combination with drugs.

biological aspect of psychiatry, and few or no experts in psychopharmacology."

One result of the psychoanalysts' convictions was that promising students and potential researchers went elsewhere, Detre says. Annual reports showing dwindling enrollments seem to confirm his view. Another was that the state legislature trimmed or failed to raise WPIC appropriations. Brosin, who had been president of the American Psychiatric Association in 1967, and had steered the hospital and department through some difficult financial times,



LEFT: Frederick Weniger taught ward management as well as group and individual psychotherapy during the Brosin years. ABOVE: (from left) Jack Wolford, Henry Brosin, and Robert Vosburg



"Planes fly over Pittsburgh," the colleague said. "They don't land there." "They will land when *we* land," Detre answered.

was going to Pittsburgh. "Planes fly over Pittsburgh," the colleague said. "They don't land there." "They will land when *we* land," Detre answered. And land he did, with an impact still being felt 30 years later.

Detre and Kupfer can be caustic about the WPIC situation they inherited. One of Detre's first moves was to go to Harrisburg to prod the state into raising its contribution.

"They told me we were not doing anything of value to the state in terms of clinical services and training," Detre says, "that we were locked into an Ivy League mentality and only concerned about research. I said they were right about us not being very useful, and I regretted to report to them that we weren't doing much research either. I said, 'Give me a little time, and the change will become obvious.'"(It should be noted that one WPIC publication from Brosin's era does list several research projects, most in clinical research.)

Detre's plea got the budget restored, even increased. He and Kupfer began to shift the hospital and department in new directions, and it was only a matter of time until they clashed with the psychoanalysts. "When we came here," Kupfer said recently, "the principal prevailing faith was the psychoanalytic one."

In the hospital's 1973 annual report, the author of the section on the psychoanalytic

institute referred to time under the new leadership as "the winter of our discontent." Things came to a head in 1974 with the death of M. Royden Astley, who ran the psychoanalytic institute. It followed the death of another prominent psychoanalyst, Bertram Lewin, and left the institute without an heir apparent. Psychoanalytic faculty wanted one of their own to be elevated, or for an outsider with impeccable psychoanalytic credentials to be named. Detre agreed that the director should be a certified psychoanalyst, but also wanted the recruit to have an established track record in research. He also wanted to set up a program to rigorously evaluate the outcomes of psychoanalytic treatment: "I thought if a person spent three to four hours a week for four to 10 years on a psychiatrist's couch, and spent a fair amount of dollars, that treatment should be evaluated."

The psychoanalysts protested; evaluation, they said, might jeopardize the integrity of the patient-therapist relationship. What patients would be forthright and honest about their innermost feelings if they knew their progress would be monitored and measured? Worse, such evaluation could sabotage treatment efforts.

A long standoff ensued. Finally 20 psychoanalysts left to establish a new independent

Pittsburgh Psychoanalytic Institute. Each contributed \$600 to get the entity up and running. Some psychoanalysts remained to teach and offer psychotherapy at WPIC, though the hospital would no longer offer psychoanalytic training.

"Analysts Split as Pitt Puts Freud on Shelf," the *Pittsburgh Press* announced. The exodus touched off other defections. A group of psychiatric nurses also resigned, and the Staunton Clinic, a psychoanalytically oriented clinic associated with Pitt, gradually severed ties.

As can be expected, not all WPIC veterans agree with the "Yale mafia's" take on history. Brosin, for his part, answered complaints by one prominent psychiatrist that WPIC was "too monothematic."

"We do not preach a monolithic religion," Brosin said in his farewell message.

"We steadfastly avoid all dogmatism and maintain an empiric, pragmatic approach to mental health. We

use drugs and shock therapy where it is indicated, but only where it is indicated. We have experimented with all the newer forms of psychiatry, such as family therapy, group therapy, marital pairs, and so on, and adopt those methods which seem to work."

Brosin himself was known for his broad interests, which ranged from information theory and evolution to the psychological aspects of organic brain disease. Stewart, who is still affiliated with the psychoanalytic institute, has nothing but praise for the Brosin period. Under Brosin, hospital stays were reduced from "one, two, three, four years to a few months," he notes.

Regarding the psychoanalysis controversy, he says, "The most important thing in any form of medical practice is to take a very thorough, very careful patient history, not simply go down a checklist of symptoms. One must learn how to listen and to talk."

Wolford, who had been at WPIC since the '40s, notes, "Hank Brosin was very solid, very broad in his outlook, and very much in favor of somatic therapies and general psychotherapy. He attracted a lot of people, and helped the institution to grow. And he did this during harsh financial times. Dr. Detre was an excellent administrator, gifted in the recruitment and utilization of top people. His coming gave a tremendous boost to WPIC. As for his

emphasis on research, well, that's what a university program ought to be about, isn't it? I would say that before Dr. Detre, WPIC enjoyed a good reputation. Under Detre, it got a great reputation. That's why they named a building for him."

Behind the hubbub, which gradually subsided, there were physical and structural changes in those 50 years, too. Most notably, the University built a 10-story addition to the original building; it was completed in 1982.

As new and intriguing knowledge about the origins of mental illness unfolded, Detre was quick to capitalize on NIMH's increasing budget for basic research. Before he became senior vice chancellor in 1983, his leadership brought hundreds of millions of dollars in basic and clinical research grants.

"I was absolutely convinced that what I was doing made perfect sense, that biologic treatments would take the upper hand in psychiatric management of patients," Detre says.

Under Detre, the Department of Psychiatry linked research with other programs

nisms altered by mental disease.

Among many major players of the Detre era were Seymour Antelman and Zaven Khachaturian. Antelman, still with the department as a volunteer professor of psychiatry, discovered a unique, stress-dependent interaction between the neurotransmitters norepinephrine and dopamine. He also demonstrated that anorectic agents such as amphetamine were relatively ineffective in counteracting stressinduced eating. Khachaturian helped improve treatments for hyperkinesis in children and developed a computerized method for analyzing and collecting clinical electroencephalogram data. He would leave Pitt in 1981 for the National Institute on Aging. Kupfer notes that Khachaturian now is credited with developing the notion that Alzheimer's research centers were needed across the country.

The psychiatry program's scope and prestige have ballooned since Pearson was at the helm of a fledgling hospital. In 2000, the hospital and department had a budget of \$125 million; 200 faculty, two-thirds of whom

were psychiatrists; and 1,800 other employees. It served 250,000 outpatients a year; inpatient stays ranged from seven to 20 days. A bibliography of

WPIC research papers published from 1998 to 2000 covers nearly 500 works. Current research encompasses biological factors related to mental illness ranging from the effects of naturally occurring brain chemicals to structural changes in the brain to changes in the body's circadian rhythms.

"The advent of psychopharmacology permitted physicians and mental health professionals to deal directly with psychoses and depression in a way that was not possible before," Kupfer said recently. "The ability to restore functioning, adequate for living outside of the hospital, in the case of schizophrenia, and the restoration of complete

functioning, in the case of depression and manic-depressive disease, shortened the length of hospitalization and profoundly changed our understanding of these diseases. We now understood that many of these problems were recurrent."

The recognition that depression must be treated for the long term to

David Kupfer (left) and Thomas Detre brought Pitt's psychiatry department into a new era. (Photo c. 1990)

He is careful to point out, with a smile, that psychopharmacology can become a religion.

across the University, including anesthesiology, neurology, pediatrics, pharmacology, and surgery, thereby earning the NIMH's favor. Detre suggested that evaluative research was necessary for good clinical care, and grants from the NIMH soon supported lab studies in metabolism and neurophysiology, animal studies to define more accurately the biochemical systems involved in mental disorders and their interaction with psychoactive drugs, and studies in sleep and motor activity. By 1977, the NIMH declared WPIC a Clinical Research Center for Affective Disorders.

Several among the first wave of recruits under Detre would grab the NIMH's attention. Israel Hanin joined the faculty in 1974, becoming director of the psychopharmacology program. His arrival coincided with the start of an NIMH grant used to purchase a gas-chromatograph mass spectrometer, which Hanin used to analyze levels of antidepressants in plasma from depressed patients. Through his research, Hanin, now chair of pharmacology at Loyola University in Chicago, helped classify subtypes of depression and opened the path for further research on biochemical, physiological, and neurotransmitter mecha-

prevent acute episodes, as one might approach heart disease or diabetes, ranks as one of WPIC's major contributions to the history of psychiatry in the last 30 years, Kupfer says. That also led to a focus on understanding depression and bipolar disorder across the entire life span.

Many of the key initial studies in treating childhood depression and geriatric depression have come from WPIC, along with the beginnings of biological understanding of early onset depression. The department has also been at the forefront of the use of imaging technology to peer inside the brain and understand its subtle workings. And rapid advances in psychopharmacology have deepened our understanding of the brain's fundamental chemistry.

Still, Kupfer cautions, much about the brain remains a mystery, if less so than in Harry Mehalic's day. He is careful to point out, with a smile, that psychopharmacology can become a religion.

"There is a belief that we would be able to understand all the behavioral factors if we simply understood the biological underpinnings of disease, and we would then be able to develop medications and drugs that would treat those diseases and cure them," he says.

"To us, that is a reductionist way of thinking because it says the brain doesn't have to think very much and you can treat it as you would liver disease.

"I think the contribution this place has made over the years—and we were not the only ones—was the recognition that these diseases would not be treated necessarily just by psychotherapy nor necessarily just by giving drugs." He pauses for a moment, savoring the irony of what he is saying, considering WPIC's past.

"What has evolved here is an integrated, combined way of thinking about disease and treatment that might involve both drugs and the so-called 'talking' psychotherapies."

