Barry Blackwell: Pioneers and Controversies in Psychopharmacology

Chapter 17: Changing medical practice and education

Maritime Metaphors

Preamble

Maritime Metaphors is the response to a posting by David Healy on INHN titled "Shipwreck of the Singular" (Healy 2016).

David is a distinguished British psychopharmacologist, author of 20 books including Pharmageddon (Healy 2012), a well-reviewed and scrupulously researched book which relates the damage done to individual patients by the corrupting influence of the pharmaceutical industry on modern medical practice, particularly in America. His 2016 essay is a recapitulation of how the dialectic between biological, psychological and social factors in illness and disease has evolved over the centuries and is currently distorted by a variety of cultural trends that over emphasize the technical aspects of healing and degrade the skill of physicians at listening to, seeing and touching individual patients at the social and psychological level, leaving them "shipwrecked."

David's thesis focusses mainly on scientific and cultural forces operating at the macro level with scant attention to the evolving and fluctuating role of medical education and economic factors that shape practice models, patient beliefs and the behavior or skills of doctors in their day-to-day dealings with patients.

This essay in response extends David's shipwreck metaphor to include a detailed examination of how changes in medical education and patterns of practice have evolved to affect the dyadic physician- patient relationship.

That said, our conclusions coincide; we agree that at both the cultural and personal level medical care has deviated too far in a technical and impersonal direction to the patient's detriment.

References:

Healy D. Shipwreck of the Singular on INHN.org in Controversies. 04.21.2016.

Healy D. *Pharmageddon*: Berkley and Los Angeles, University of California Press, 2012.

MARITIME METAPHORS

"He who studies medicine without books sails an uncharted sea, but he who studies medicine without patients does not go to sea at all."

William Osler (From the essay, *"Books and Man")*

This second maritime metaphor was one of many pithy sayings by William Osler, who practiced medicine in Canada, America and Britain in the late 19th and early 20th century. During that time, the medical profession evolved from an apprenticeship model in the community to an academic discipline in universities.

That Osler would pen a maritime metaphor is no surprise. His father, Featherstone Osler, was a Lieutenant on Nelson's Flagship, the *HMS Victory*. Invited to serve as science officer with Charles Darwin on the *Beagle*, he declined; his own father was dying. In later life, Featherstone became a minister of the Church of England in Ontario, Canada, where William was born. He originally planned to follow in his father's footsteps but instead enrolled in the University of Toronto Faculty of Medicine in 1868, moving to McGill University in Montreal and graduating in 1872.

Osler, often regarded as the "Father of Modern Medicine," was an innovator with strong ideals from the start. He created the first formal journal club in 1884, was one of seven founding members of the Association of American Physicians in 1885, dedicated to the "advancement of scientific and practical medicine" and was Chair of Clinical Medicine at the University of Pennsylvania. When he left to become the first Physician in Chief at Johns Hopkins University in 1889, his famous valedictory address, *Aequanimatas*, preached the virtue of a calm demeanor for physicians. At Johns Hopkins, he set about accomplishing what he hoped would become his epitaph: "He brought medical students into the wards for bedside teaching."

Osler's ideas and initiatives were 20 years in advance of the Flexner Report, published in 1910, an overview of medical education in America, conducted for the Carnegie Foundation. Abraham Flexner was neither a physician nor scientist but a respected educator who visited all 155 medical schools in America to produce a blistering report on the parlous state of the discipline. His overall experience of the schools was, "Each day students were subjected to interminable lectures and recitation. If fortunate to gain entrance to a hospital they observed more than they participated." The worst he described were the 14 medical schools in Chicago, "indescribably foul… the plague spot of the nation." At Johns Hopkins, Flexner encountered Osler's heritage, "the model for medical education," which he recommended as the template for twentieth century medicine in America. But by then, Osler was long gone, accepting the Regius Chair of Medicine at Oxford, England, in 1905 until his death in 1919, at age 70, stricken in the influenza epidemic and saddened by the death of his only son at the Battle of Passchendaele in 1917.

It is ironic that within a very short time the rigorous scientific and educational requirements set by Flexner, based on Osler's model, would perversely create tension between mastering the life-saving technology of medicine and preserving intimate contact with the patient's needs and circumstances.

Eight short years after Osler's death, Francis Peabody, a distinguished internist spoke to the Harvard medical students in 1927, "Young graduates have been taught a great deal about the mechanism of disease but very little about the practice of medicine – or, to put it bluntly, they are too scientific and do not know how to care for patients."

If anyone was listening, not much changed. Over a half century later in 1958, George Engel, another distinguished internist, proposed a new biopsychosocial model and echoed Peabody's concerns: "Medical education has grown increasingly proficient in conveying to physicians sophisticated scientific knowledge and technical skills about the body and its aberrations. Yet, at the same time, it has failed to give corresponding attention to the scientific understanding of human nature and the social and psychological aspects of illness and patient care."

In 1957, the year previous to Engel's article, I left Cambridge University and began my clinical training at Guy's Hospital in London. Osler's model of bedside teaching was in full force. Medical students rotated through the various wards as part of medical or surgical teams and under the supervision of a hierarchy of junior or senior registrars and consultants, employed by the National Health Service as full-time educators and clinicians, apart from a few sessions as private practitioners, often in Harley Street. Students interviewed and examined their patients, presenting and defending their findings at the bedside, then quizzed by the consultant and responsible for recording the team’s conclusions in the patient’s chart.

The ratio of science to empathy varied with the rotation and the consultant. I met my nemesis on obstetrics, shortly before graduation. I was the student caring for a pregnant woman close to term who could not understand how she became pregnant and was terrified at the thought of having to push the baby out. I suggested the consultant request a psychiatric opinion and was ridiculed. Next, I asked if a Caesarian section might be in order and was put in my place. I sat with the patient when labor was induced by drip, holding her hand as she screamed until the baby was born. That very week, the lead article in the *Lancet* was on “Human Relations in Obstetrics” by a consultant obstetrician at another teaching hospital. Still emotionally outraged, I wrote a supportive letter to the journal, which they published a week later as the lead letter over my name. (Blackwell 1960). A few months later, I took my final exams; the obstetrician for my oral exam called me by name, invited me to do a vaginal exam, noted, “You obviously didn’t do this often” and exercised his right to prevent me graduating, although I passed every other subject. By now, I had decided psychiatry would be my future but I spent the next six months doing nothing but obstetrics.

I continued to play rugby and proudly captained the Guy’s team, the oldest rugby club in the world. One of our strongest supporters was the Professor of Psychiatry, Stafford Clarke.

After a six-month stint as a neurology resident, where I won the hospital annual research award for a self-designed and unfunded study on the management of barbiturate overdose (Blackwell 1964), I began my psychiatric residency at the Maudsley Hospital. Without a membership in internal medicine (MRCP), which Aubrey Lewis favored, I was assigned to the B stream at the Bethlem (formerly Bedlam) Hospital in the suburbs, on Lindford Rees’ unit with Brian Davis as my senior registrar. Fate did me a favor. While there, I came across the interaction between MAOI antidepressants and cheese (Blackwell 1963), attracted Aubrey Lewis’s attention and was promoted to the Professorial Unit to work under his eagle eye.

Aubrey’s approach to patients was influenced by time spent with Adolf Meyer in America at the Phipps Clinic at Johns Hopkins, where Meyer was Director from 1910-1941. This involved developing a case formulation on each patient that incorporated all the biological, psychological and social factors and symptoms, including the putative etiology and prognosis, as well as a diagnosis informed by Kraepelinian and analytic insights. Information obtained from relatives was considered mandatory and it was a requirement that all new patients attending the outpatient clinic brought a family member with them. Worth noting is that Adolf Meyer became the first Professor of Psychiatry at Johns Hopkins five years after Osler left for Oxford. Although from different disciplines, their comprehensive approach to patient care shared common principles and objectives. Like Adolf Meyer, Aubrey Lewis was cautious, moderate and skeptical of psychoanalytic concepts but he did not scorn them. Towards the end of my time on his unit, he took me aside to offer me an opportunity to do bench research in pharmacology under Ted Marley and study the interaction in rats and cats. This generous offer was only made after he asked for an assurance I was not in analysis at the Tavistock Clinic. That work earned me a doctoral degree in pharmacology and medicine from Cambridge University.

After completing residency and earning an M.Phil. (London) degree, I worked as a Research Fellow under Michael Shepherd, who was Aubrey Lewis's number two person, responsible for the Social Psychiatry Unit that reflected Aubrey's interests in the natural history and epidemiology of mental illness. During this period, I undertook three studies pertinent to David Healey's concerns. The best known, and recently, the subject of an extended debate among INHN members, involved a critical analysis of Schou's claim that lithium had a prophylactic effect in recurrent bipolar disorder (Blackwell 2014). Historically, this must be viewed as an accurate claim based on Schou's intimate knowledge of his brother's treatment refractory illness but not adequately supported due to the lack of a randomized control trial (Blackwell and Shepherd 1967a). Ironically, my next publication with Shepherd, also in the *Lancet*, documented failure of a randomized controlled trial (RCT) on a new antidepressant (Blackwell and Shepherd 1967b). We were unable to assemble an adequate number of subjects due to the highly restrictive criteria for inclusion (age, gender, absence of concurrent diagnoses or treatments and reluctance of both patients and referring physicians to risk placebo). RCT's were the mandatory methodology *du jour* in the 1960s and only later, would their added shortcomings become clearer; conducted for relatively short periods of artificial total compliance, until a statistically significant benefit over placebo appeared, while delayed, and often serious, side effects remained undetected.

The third study I conducted during this time was with a fellow resident, David Taylor. It was meant to explore how colleagues were using the MAOI in our outpatient clinic during the period before and after the discovery of the hypertensive interactions with tyramine-containing foods (Blackwell and Taylor 1967). This study involved chart reviews of every patient being seen by all the consultants using them. We called this "An Operational Study of the MAOI," but in fact, it may have been among the first effectiveness studies with objectives similar to the CATIE study, designs that contrast the artificial world of RCT's with the real world of how drugs are actually being used. Among other things, we learned that how and when the drugs were prescribed affected outcomes, as did the prescriber's beliefs and attitudes. In selected individual patients, we were better able to understand outcome by having them rate symptoms of their own choosing on a daily basis. A successful business man showed an equivocal response on weekly ratings, so we instituted daily ratings of mood. During the week, at work, he was happy but on weekends at home, he was sad. Enquiry revealed he was impotent with a troubled marriage that was dealt with in therapy.

We noted specific differences in outcome among the different MAOI attributable to their pharmacological properties, not previously considered significant. Effectiveness studies are now recognized as an essential adjunct to what can be learned about efficacy alone from RCT's. It is also worth noting that the contemporary denigration of single case studies by journals and editors contributes to the decline of interest in the singular.

After completing the Research Fellowship with Shepherd, I remained uncertain if I was ready to give up the breadth of medicine for the depth of psychiatry. My somewhat quirky career had not attracted any mentors, essential to upward mobility in the NHS hierarchy. Instead, I became the junior partner in a suburban family practice run by the Commanding Officer of the reserve field army ambulance in which I served. It was where I moonlighted on weekends throughout residency and where I did a home visit on the first person I saw with a hypertensive crisis taking an MAOI after eating cheese.

This job change created an unexpected and unique opportunity to remain involved in research. My contemporary and colleague, David Goldberg, had joined Shepherd's Social Psychiatry Unit. In 1967, the literature showed a bewildering range in the alleged prevalence of psychiatric disorders among primary care practices. Was this variability due to characteristics in the population or due to differences between family physicians in their ability to identify mental illness in their patients? David developed the General Health Questionnaire (GHQ), a 60-question survey. The questions were innocuously worded to measure, “How your health has been in general over the past two weeks?” Examples were, “Have you recently been feeling run-down and out of sorts?”, “Found everything getting on top of you?”, “Felt on the whole you were doing things well?”, “Lost much sleep over worry?” The questions were easy to understand, quick to respond to and most avoided an overt implication of mental illness.

Patients completed the survey in the waiting room. I behaved entirely as their family doctor, dealing with their complaints (usually physical) and treatment in a standard 15-minute visit. After the patient left, without seeing the questionnaire, I made a quick rating of any possible mental illness. David, in an adjacent office, did an hour long psychiatric interview on a random sample, making a formal diagnosis where relevant.

We compared the ability of the GHQ and the family doctor (myself) to agree with a psychiatrist (David) on the presence of a mental illness. This unique design compared two identically trained psychiatrists, but I operated as a family doctor under the constraints of time and purpose. The fact that I had to focus almost entirely on physical symptoms and their treatment in a quarter of the time, led me to miss one third of the psychiatric cases identified by David.

David undertook a sophisticated statistical analysis of the data to determine the specificity, sensitivity, reliability and validity of the GHQ in the detection of mental illness in primary care. We co-authored two articles in the *British Medical Journal*. David, as first author, dealt with the GHQ’s measurement characteristics (Goldberg and Blackwell 1970), while I described the clinical nuances that influenced and complicated accurate psychiatric diagnosis in primary care (Blackwell and Goldberg 1968). The reliability, validity and usefulness of the GHQ were confirmed in many different populations and it has been translated into 38 languages, making it possibly the most widely used measure of mental well-being and vulnerability over a 50-year timespan.

The timing and outcome of this study had major social implications. It confirmed a high prevalence of mild affective disorders, often a mixture of anxiety and depression in primary care, which usually remitted within six months of follow-up. I had quickly learned to use low dosages of a sedative tricyclic antidepressant, sufficient to restore restful sleep and, after two weeks or more, sufficient equanimity (Osler’s medicine) to cope with day-to-day domestic chores or work and inter-personal frictions that trigger mood disorders. (David Goldberg wondered if the practice was "Elavil deficient.")

By this time, meprobamate and the first benzodiazepines were available. Initially, a Gallup poll of family physicians showed a lack of interest in drugs to treat anxiety but soon a vast market developed, triggering an increasingly vituperative debate on both sides of the Atlantic about appropriative use, with America more in favor, described in *The Anxiety Enigma* (Blackwell 2014).

David Healy expresses concern that "The use of rating scales and operational criteria" leads to "informational reductionism," which "dehumanizes the human encounter." He quotes Michael Shepherd as later conceding that large scale Epidemiological Catchment Area studies, using such scales, "Sorcerer's Apprentice like created markets for pharmaceuticals." This is very much a *"post hoc, propter hoc"* proposition, not due, I believe, to the use of rating scales - which alerted primary care physicians and their individual patients to the existence and vocabulary of mental illness in primary care - but to the incessant and importunate siren songs of the pharmaceutical industry. The prescribing pen remains in the doctor's hand and the extent of its use depends on the guidelines our educational and professional organizations provide, as long as they remain inured to commercial influences that carry a corrupting *quid pro quo* component.

The following vignette may illustrate my point. In the practice I saw a 30-year-old mother of two young children who complained of fatigue and insomnia, seeking "a tonic." A high GHQ score heightened my curiosity. Burdened by domestic chores and an unhelpful husband, she reluctantly revealed she was "irritable, easily angry at the kids and guilty afterwards." I soon realized that this triad of complaints, unfamiliar in residency and unmentioned in the literature, was prodromal of major depression. Further probing reluctantly revealed initial insomnia, early morning awakening and decreased libido, to which her husband did not take kindly and which worsened her guilt.

Her reluctance to welcome a psychiatric diagnosis was manifest as would be a referral to a psychiatrist. She wasn't keen on medicines either, after I described their side effects. So, I became cunning (like a drug salesman?). I selected a low dose of amitriptyline, just enough to help her fall asleep without side effects. I explained this wasn't a sleeping pill which worked immediately, so she should take it after supper, two hours before bedtime, about when it would kick in. I quoted

Shakespeare's *Macbeth*: "Tis sleep that knits the raveled sleeve of care." I explained that this benefit occurred after the first dose and would help her cope better with her kids and husband. Less irritability, improved mood and increased libido would certainly follow, but more slowly, perhaps not for a few weeks. When this happened, it might help to recruit a babysitter and plan a night out. I would see her again in a couple of weeks to see how things were going. She thanked me and managed a smile.

It took a year to absorb the lessons and limitations of family medicine and by then, I realized I would return to psychiatry. There were too many intriguing questions that needed time and study to answer at the interface of medicine and psychiatry in people's individual unique responses to disease and illness. A way ahead soon declared itself.

Another Maudsley contemporary, Trevor Silverstone, returned from a lecture tour in America. He was interested in appetite control and wanted to visit my weight clinic, where simple cognitive-behavioral approaches and weekly monitoring were achieving significant success. In America, he had consulted with a pharmaceutical company that marketed an appetite suppressant (diethylpropion) and they were looking for a Director of Psychopharmacology Research to help exploit the burgeoning and lucrative field of psychotropic drugs. Was I interested?

Within weeks, I was flown to Cincinnati, interviewed and offered a job at four times my current income. I didn't need a license to work in industry and would have one day a week to teach medical students and residents at the University. I accepted.

The Merrell Company was at a painful crossroads. It had recently marketed thalidomide to pregnant women as a safe hypnotic, causing phocomelia, public outrage and triggering the Harris-Kefauver amendments in Congress, instigating stringent safeguards for drugs, including RCT's for the many profitable placebos and panaceas that pharmaceutical companies had accumulated over the years. Merrell had its share, including a geriatric tonic containing alcohol, B vitamins and a small dose of a psychostimulant that could not improve on the large placebo response in a nursing home population. A sedative drug had the unusual claim that it eliminated hallucinations, whatever the cause but in intravenous dosages higher than the oral one. It was summarily banned by the FDA, deaf to the pleas of advocates who claimed it was irreplaceable.

There were compensatory influences. The Director of Research was a hard-nosed, feisty and ethical old timer willing to stand behind his research team and face up to the business and marketing executives. Merrell also retained one of America's leading psychopharmacologists, who became my mentor. Frank Ayd was a devout Catholic and father of twelve children, who had worked in the Vatican as advisor to the Pope on ethical and psychiatric matters, speaking often on Vatican Radio. Frank was one of the first psychiatrists in the world to study and report on the benefits of Thorazine in psychotic patients he treated in his private practice in Baltimore. He was a founding member of the ACNP and sponsored me as a member in 1970. Many years later in 2008, I had the honor of writing Frank's obituary for the ACNP (See Blackwell 2013). Frank and I presented a published work together on drug testing in prison volunteers (Blackwell and Ayd 1971).

We were also involved in teaching our new discipline to public and professional audiences. From this came the idea of inviting and honoring all the clinicians and scientists who had made their original (sometimes serendipitous) discoveries in the 1950s and 1960s. This first Taylor Manor Conference took place in 1970 at Baltimore and the proceedings were published in the book we co-edited, *Discoveries In Biological Psychiatry* (Ayd and Blackwell 1971). Although it was one of the first books on the new field, it is strange and inaccurate to read David's claim that in this period, "Biological psychiatry as it is now called had not then been invented." His claim that social psychiatry (in Britain) and psychoanalysis (in America) were dominant, while partly accurate, dismisses the progress in psychopharmacology and biological psychiatry made in Canada, Europe and in the VA and Mental asylums of America.

I enjoyed and benefited from my time in industry but felt uneasy about my role. My self-image and self-esteem were tied to education and research, not product development and commerce. After just over 18 months, I was offered the opportunity to reverse roles; to become a full-time professor of Psychiatry and Pharmacology at the University of Cincinnati with a day a week consulting at Merrell, where my opinion and judgement might be questioned but not my loyalty.

In addition to my teaching and research commitments in both academic departments, I became Head of the Psychosomatic Unit at Cincinnati General Hospital, previously run by George Engel, internist and training analyst, who operated the unit on a combination of Selye's stress model and traditional psychoanalytic coupling of personality traits with specific medical conditions, as with dependent personality and peptic ulcer – until it became a bacterial infection.

The faculty was not happy; they warned the residents that a rotation on my unit “would ruin their careers.” The challenging duality of this environment paradoxically fed an awareness that psychological mindedness, coupled with healthy skepticism, were essential ingredients for training a complete physician. Meanwhile, the nursing staff on the unit (under my future wife, Kathie Eilers) were well aware of the common and difficult behaviors displayed by patients independent of the admitting medical diagnoses; peptic ulcer, hypertension, irritable bowel syndrome, chronic pain of different varieties, migraine and miscellaneous intractable physical complaints. Together with the nursing staff, a creative clinical psychologist (Susan Wooley) and a physiological psychologist (Bill Whitehead) we constructed a cognitive behavioral treatment based on David Mechanic’s model of “Illness Behavior” and the hypothesis that people trapped in a psychosocial predicament often seek the comfort of a real or assumed medical disorder. This façade is shaped by negative and positive reinforcement. The avoidance of the challenges of healthy living, fed by low self-esteem, lack of skills, fatigue, social phobias or depression (primary gain or avoidance learning) and sustained by the rewards of the sick role: attention, caretaking, status as a “special patient,” medication or economic gain from litigation or entitlement programs (secondary gain or positive reinforcement).

We codified and measured this approach, studied it carefully and eventually published our outcomes over a two year period (Wooley, Blackwell and Winget 1978). Never popular in Britain (I presented it to a skeptical audience at the Maudsley), it became impossible to implement in America under managed care and insurance criteria that denied coverage for multidisciplinary inpatient treatment for patients, most of whom, by definition, had pre-existing conditions or a co-morbid psychiatric diagnosis.

As a faculty member in pharmacology and psychiatry over four years, I studied a wide variety of topics, including a class experiment in which medical students served as the research subjects in a class demonstration of the placebo response, published in the *Lancet* (Blackwell, Bloomfield and Buncher 1972). The Chair of Pharmacology thought it was unethical but the medical students awarded me a golden apple.

A unique study on Transcendental Meditation in Hypertension, also published in the *Lancet*, showed wide variations in the patients' individual self-ratings of mood, as well as blood pressure (Blackwell et al, 1976). Included was a middle-aged man with severe alexithymia; he had grown up in a strict, unloving home, and never learned the language of emotion. The only feeling he could express was of being "irked" at his wife; this became the outcome measure against which blood pressure was evaluated.

I supervised two residents (both in analysis with faculty members) in an early RCT on the analgesic and antidepressant effects of a tricyclic antidepressant, given to inpatient Veterans with chronic pain. The placebo effect was substantial and exceeded the drug benefits on pain and depression; the residents were delighted that empathy trumped pharmacology (Evans et al. 1973).

Finally, the early 1970s were the heyday of rapidly increasing use of benzodiazepines by almost all the physicians in America, whatever their discipline. I published an analysis in *JAMA* of prescribing data obtained via the pharmaceutical industry with an upward curve in minor tranquilizer use that suggested the entire nation might be tranquilized by the year 2000 (Blackwell 1973). In an attempt to enlighten a heated debate and transatlantic squabble about "the opium of the masses" (Malcolm Lader versus Karl Rickels), I designed and carried out an effectiveness study with a senior resident (subsequently Chair of a distinguished academic department). It was a unique design that has never been replicated and very seldom cited (Winsted et al. 1974).

Over a six month period, every person admitted to an inpatient psychiatric unit was routinely prescribed Valium, when necessary (prn) for anxiety. This conformed to usual and customary practice, justified by the belief that anxiety is a ubiquitous adjunct in all psychiatric disorders and admission to a psychiatry unit was often anxiety producing. It also avoided 'unnecessary' calls from nurses to attending physicians at night. On admission, all patients were given a written invitation to talk to a staff member if they felt anxious. "Staff will be happy to talk to you about your feelings and to give you medication if they consider it would be helpful." To quantify the patient's behavior, a drug seeking index (DSI) was derived by measuring the number of requests to the number of days on the ward.

Over the six months, 100 patients were admitted, help for anxiety was requested by two thirds of the patients on 689 occasions and Valium was given in 95% of contacts. A third of the patients never sought help and those who did, averaged one request every three days (DSI of 0.33). The DSI declined with duration of stay. Over the entire course of the study, the DSI was correlated with high rating scale scores for anxiety and bodily concerns. Use of valium was higher among women and white patients, lower in men and ethnic minorities. It was unrelated to psychiatric diagnosis or use of other psychotropic drugs. During the study, staff opinions became more favorable to drug use.

The following conclusions were drawn, “When made freely available, patients of all diagnoses seek diazepam (Valium) and most use it conservatively … An important inference might be that any tendency to overuse minor tranquilizers may not be due to importunate or unnecessary demands by patients.”

As with all the research in my career, this was without industry or any other financial support, except my salary.

Intrinsic and External Factors

David Healy’s analysis of causes for *the shipwreck of the singular* hinges on a balance of intrinsic and extrinsic factors that shape public and professional opinions going back to the early 19th century and before. The extrinsic factors enumerated by David include “malign influences or physical miasmas from without.” These gave rise to epidemiology as a means to eradicate epidemics, creating footholds for public health and social medicine in academia. Though distinct from Biomedicine, this duo united to form a triumvirate that enabled a powerful pharmaceutical industry to invent “magic bullets,” reinforcing intrinsic responsibility.

Next, David notes “the emergence of a biopsychosocial approach to medicine that appears to be the height of reasonableness, but which also strengthened the influence of “public health mavens” and the “social side of medicine.”

Both factors are clearly necessary. Viewed through a metaphorical telescope, the cultural influences including epidemiology, RCT’s and industry yield interesting generalizations that are sometimes flawed. Seen through the microscope, biopsychosocial and illness behavior formulations enlighten a person’s singular predicament with nuance, subtlety and ambiguity. David focuses more on the former than the latter. So here are two single case studies that illustrate the complexity of therapeutic interactions that deal with a kaleidoscope of both internal and external factors at the individual patient level.

The first is a case study published in JAMA with the title, “Primary Care Psychiatry” and subsequently featured on the cover of the journal’s Japanese edition (Blackwell 1983):

> “My next outpatient, referred by Medicine, was late. I leafed through our Primary Care Clinic’s chart. The referral slip said, “Impotence, psychotic?” The workup was thorough; no diabetes, no neurological signs and a normal review of systems. But after that the resident’s notes betrayed frustration, ‘Impossible to interview; maintains a monologue with vague delusional statements and demands for meds.’ When Joe showed up in the psychiatry clinic, I was surprised. Half of our referrals from primary care don’t come; perhaps they feel accused of inventing or imagining their ailments. As I left my office to greet him, Joe was delivering a sermon in the waiting area on some aspect of his religious convictions. A four-square physique and a name full of c’s, y’s and z’s suggested a home on the South side. That is a culture with strong values and clear-cut beliefs. Few psychiatrists work there, and their offices, like adult bookstores, have front and back entrances. If my stereotype was accurate, plain talk would be in order; psychological jargon would not. Looking me in the eye, Joe launched into his monologue. He had suffered from epilepsy all his life and borne the stigma with fortitude until he retired from the brewery five years ago. Deprived of the dignity of work, Joe had bolstered his manhood with an affair that quickly ended in remorse and return to the religiosity that consorted with his seizures. After a period of conscious-stricken prayer, God and two fellow helpers appeared at the foot of his bed to tell him his suffering would cease if he agreed to lead a better life. When Joe believed his part of the bargain was fulfilled, the seizures stopped and he no longer needed anticonvulsants. Two years later, the unearthly trio reappeared, promising continued good health in return for good behavior. Joe complied.
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> “But now he was 70 and his wife was dying in a nursing home. He had just moved from their home into an apartment with a woman friend who wanted more than

companionship. Joe was pushing hard to prove himself and find some comfort, but his body wasn't cooperating. He felt inadequate and a trifle guilty.

"Joe had taken some practical steps to solve his new problem. He visited a urologist who examined him, found nothing wrong, and declined Joe's request that he prescribe testosterone (or anything else). Later, after taking all the vitamins and potency pills he could buy in a health foods store, but to no avail, Joe had turned to the Primary Care Clinic. And now, Psychiatry.

"At this point, I interrupted him with a question (time was passing) – what did he want from me? Joe didn't answer because he was very deaf. Again, I interrupted, this time shouting my question. He answered 'Testosterone.' Either by needle (he pointed to his rear end), or under the tongue (he opened his mouth). Unable to communicate with Joe verbally, I wrote out my recommendations, numbering them as follows:

1. The urologist said you don't need testosterone. I agree.
2. Your problem will go away when

(a) You stop trying so hard.

(b) You are less worried.

3. Try prayer. It worked before.

"Joe took the pad but looked puzzled: 'I don't have any glasses.'

"The end of our consultation had arrived and the next patient was waiting. Throwing caution and confidentiality to the winds, I shouted my advice into his ear. Joe listened carefully, became thoughtful and then nodded.

"Reading the nonverbal signs that our interview was over, Joe held out his hand and thanked me kindly, saying he would be back for further advice when he needed it. Later, as I struggled to code our encounter for billing purposes, I had the comforting thought that if psychiatry does become extinct (as some predict), I might enjoy being a primary care practitioner again."

Seen today, Joe would be prescribed Viagra or Cialis by his primary care doctor and probably never referred to a psychiatrist.

The second singular case was a private patient seen in my office, not the clinic. It is published in my memoir (Blackwell, 2012) with the title, “For Sale” in *The Bread and Butter of Psychiatry*:

> “I was rummaging through some papers on my desk, waiting for Sophie, when she marched briskly through the open door and plumped herself down on the sofa. She had on a silver fox fur cape topped by a scarlet beret that matched her lipstick. Before I could close the door or sit down myself, she announced emphatically, ‘I’m a whore.’
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> “I paused a second or so before inviting her, in a deliberately neutral tone, to ‘say some more.’
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> “She did. ‘It’s disgusting, don’t you think, for a 75-year-old woman to be going with two 80-year-old men at the same time?’
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> “‘Two?’ I asked innocently, knowing about Max from earlier sessions. Sophie had taken up with Max soon after her last husband had died. He balanced her checkbook, chauffeured her to the grocery store, and snored next to her in the movies. Early in therapy, when she began an antidepressant, she had complained her orgasms were inhibited. After the dose was lowered, she said no more. Twice, I tried to stop the drug, but each time, the grayness descended, and all her pleasure dwindled.
>
> “Taking my knowledge of Max for granted, Sophie told me about the second man in her life. It was an old flame, rekindled. ‘His name’s Sid. He asked me to marry him in 1929, but I told him no because I wanted to work. Sid said I could work, and he’d quit but then the Depression came. We both had to find jobs. Now he lives in Cincinnati, and his wife’s in a nursing home with Alzheimer’s or something. She doesn’t even know his name.’ Sophie paused to reflect on this and then added, ‘I’m glad all three of my husbands died suddenly.’

“Ignoring this digression, I asked Sophie to say more about Sid. In the past month, Sid had become more ardent, driving his Lincoln Mercury 50 miles to Dayton several times a week and often arriving unannounced. Like a timid teenager from 60 years earlier, Sophie strove to keep her two suitors apart. This caution eased a nagging concern that my chemical tinkering might have tipped Sophie from sadness into an erotic mania of insatiable urges and unchecked impulses. She told me that Sid was Chairman of the Board for a large paper corporation. Like all of her husbands, and like Sophie herself, Sid was successful and self-made. Once Sophie was over her initial depression she was a match for anyone. Sophie played demonic bridge, entertained lavishly and insisted she got credit for the senior citizens’ courses she enrolled in at the university. When an instructor at the YMCA questioned her wisdom in joining an aerobics class, she produced a certificate from her internist to prove she was in shape.

“As her therapist I was unsure of what Sophie needed from Sid now. She surely wasn’t having doubts about the wisdom of sex after seventy. For Sophie, sex simply wasn’t sinful. It was a practical matter. Earlier in therapy she had told me of how she had been driving to a party with her first fiancé when she realized they hardly knew each other. Sophie ordered him to turn the car around and take her to bed. That must have been the man she married instead of Sid.

“Nor did Sophie seem to need help with strategy. I recalled the courting of her third husband, a distinguished professor in the English Department at the university. They had met soon after he became a widower. Instantly smitten, the professor declared his interest but coupled it with the intention of remaining in mourning for a year. She understood his need for the delay but saw no reason to deny themselves sex. They were married two months later.

“Often in therapy there were doubts about what my patients wanted. Only a few had wild psychoses or aberrant chemistry that taxed my training. More often, like Sophie, they came for advice, absolution, or an opportunity to iron out an ambivalence or two. I met all these needs like a bartender sworn to secrecy, a minister without a collar, or a friend whose only obligation was to listen and nod.

> When I was down on myself, I complained to my wife that all I ever did was to sell solace that had as little to do with doctoring as work in a massage parlor had to do with a degree in physical therapy.
>
> "My mind drifted back to Sophie sitting on the sofa, and my own thoughts merged with her predicament. An image crystalized in my mind. After all these years living with three husbands she must feel like an empty house, up for sale. I shared the metaphor with Sophie, wondering what she would make of it. Sophie stayed silent for a long time. A sheen of sorrow spread across her eyes. When I saw the tears glisten I asked how she felt.
>
> "'Used up. But it's true I'm available. So, what do I have to offer?'
>
> "'Offer?' I echoed, wondering if Sophie saw in herself only what she thought the world would see. A widow turned 70 proffering sex?
>
> "The thought was mirrored in my own mind. A doctor turned therapist prescribing drugs? I knew that danger well; it was both the product and producer of bad thoughts, spiraling down to depression. When Sophie spoke, it affirmed my hunch that she was dwelling on the dark side. 'My daughter will think it's disgusting. At my age.'
>
> "Intuitively I sidestepped her statement. Instead I used the time left to attack its roots; I gently reminded Sophie of the things she did so well and the companionship she had to offer. At the end of the hour I asked, according to ritual, if she needed another prescription. Sophie said 'no, not this time.' When she stood to leave she seemed calmer than when she came."

Later, we will return, (**Unique to America)** to place the give and take of these singular encounters and the role of a psychiatrist in the context of contemporary clinical and insurance practices.

Moving On

By 1974, I felt equipped to seek broader horizons. The Chair of the Department, Maury Levine had succumbed to acute leukemia; from his death bed, he sent me one of his famous

"Memo's from Maury," promising he would initiate a new conference to integrate dynamic with biological constructs and interventions. (He had previously authored a book on *Psychiatry in Family Practice.*) It was not to be, and Maury's death coincided with the tail end of a Federal Government initiative to fund more than 30 new medical schools in communities remote from academic ivory towers and dedicated to training humanistic primary care physicians willing to work in underserved areas.

My background in psychiatry, pharmacology and family medicine seemed suited for this task, so I applied for and was appointed as the Founding Chair of Psychiatry at Wright State University in Dayton with professorships in psychiatry, medicine and pharmacology.

The charter class assembled in 1975, diverse in backgrounds, along with a faculty committed to the intended goal. This included a Medicine in Society Program, staffed by an ethicist and sociologist. An innovative curriculum included a first-year course taught with the English Department on classical literature that reflected physician and patient roles in coping with illness (Wilson and Blackwell 1980) and a "Student-Cadaver Encounter" designed and taught by faculty from Anatomy, Pathology, Psychiatry and Medicine in Society (Blackwell et al. 1979).

An inevitable tension between mastering the technical aspects of medicine and preserving or encouraging the empathic (singular) aspects of patient care is reflected in modern media's contrasting stereotypes of Marcus Welby and Patch Adams versus Dr. House and Doc Martin. Robin Williams's brilliant portrayal of Patch Adams displays the competing mind sets of a rigid academic Dean, committed to a Marine Corps boot camp ideal of medical training, contrasted with Patch Adams' empathic, humorous and impulsive attempts at humanism.

The perhaps necessary endpoint for two types of physician became apparent to me when my son fell and fractured his ankle close to the epiphysis at the critical age of nine. We consulted two surgeons. The first was brusque, matter of fact and ignored Simon; the second was friendly, chatty and explained the X-Rays to him. Asked which doctor he preferred he replied, "I'd like the first to operate on me and the second to look after me afterwards."

There is a need but not enough comfortable room for both approaches, especially as technology expands and demands larger amounts of time within the frozen limit of a four-year curriculum. In more than a century since the Flexner report, the time devoted to Behavioral

Medicine has expanded from 26 to 362 hours between admission and graduation (most in the first two years) (Blackwell and Torem 1982). Our national survey recorded programs with 43 different names with as many as seven different departments collaborating.

There is an innate dehumanizing aspect inherent to medical education I discovered, when I combed the literature in preparation for our task and later published (Blackwell 1977). Particularly impressive were the comments of a female journalist, Joan Priestly, who entered another medical school the same year ours began. Here is how she describes the experience:

> "As students we become adjusted, inured and, finally, oblivious to our situation. Our experiences as medical students are subtly conditioning us to become cerebral and unfeeling to the point of brutal insensitivity. The acronyms – SLE, EMG, PNM, PNS – which cover anything from anatomical features to devastating diseases… a new vocabulary of over 13,000 words has to be mastered. The obscure language certainly exerts a strong influence. Our lecturers discussed babies with ghastly deformities in terms of 'this interesting case.' We have had experiences shared by only a fraction of the population … how many people can say; I got up at 8: 00 a.m. today – to saw a human head in two; to hold a human heart in my hand; to do a glucose tolerance test; to pick apart a dead man's genitals.
>
> "This school is not just a series of lectures and homework; it is a rite of passage we endure together. We have immersed ourselves in an environment that is not only new, but alien, and we are somehow persevering to survive the constant drain of nonstop studying and weariness and trauma and lack of sleep and lack of sex and loneliness and tears and spaciness and unexpressed frustration and anxiety ridden tensions. I succumb now and then to the ego-inflating lure of feeling 'special' and have become more arrogant and aggressive, less patient and tolerant, when dealing with 'lay people'."

This elegant and painful recitation is a long way from the 1950s *Doctor in the House* books by Richard Gordon, describing medical school in Britain and it is unclear how much the difference is due to technology, culture at large or differences in the educational experience between radically different health care systems.

One final piece to understanding the enigma of stifled humanism in medical education entered my personal awareness when I was asked to address the incoming charter class on the topic of "Being a Physician" (Blackwell 1984). Anxiety about giving the talk played on my unconscious and shortly before I was to deliver my address, I had a dream. I was treating a woman newly admitted to hospital with a bleeding disorder. I decided to set up an infusion but was uncertain which drug to use. The ward copy of the *Physician's Desk Reference* was missing and I was forced to leave the unit and continue a fruitless search elsewhere. When I returned to the patient's bedside, still in doubt, the intern had set up an infusion. As I approached the bed, the patient began to bleed around the infusion needle. The flow of blood grew rapidly from a trickle to a deluge. I grabbed at the sheets and bedclothes in a futile attempt to staunch the bleeding and at the same time was aware of the beseeching eyes of the intern, the recriminatory eyes of the nurse and the terrified eyes of the patient. Then I awoke.

The dream encapsulated the unique stresses of the physician's role; the necessity to make decisions in ambiguous situations, to take control in emergencies, to be responsible for finding a cure. I used the material in my talk, presenting it as a case that had actually occurred. Afterwards my vice chair, who was a psychoanalyst, asked who the patient was? This stimulated my associations to two cases I had been involved with immediately after graduation at Guy's Hospital as the house surgeon to Britain's pre-eminent breast surgeon.

First was a woman who noticed a lump in her breast while bathing and had been admitted for emergency biopsy. At surgery, an inner quadrant, hard, pinkish gray tumor was found on frozen section to be consistent with anaplastic carcinoma. A mastectomy was performed and as the patient was leaving the operating room, the pathology laboratory called to say the peripheral blood smear showed acute leukemia and thrombocytopenia. We began an anxious watch for hemorrhage from her wound and menstrual period which started several days later. She required several pints of blood as her hemoglobin level fell relentlessly. Fourteen days after surgery and a month to the day after noticing the lump in her breast, she died. Autopsy disclosed undiagnosed leukemic deposits throughout the internal organs. I published this case in the *British Journal of Surgery* (Blackwell 1963a).

The second case was even more painful and personal. Years previously, my mother had a hysterectomy and now developed adhesions and intestinal obstruction. My attending agreed to admit her for surgery and I signed off the case. The operation was difficult and afterwards my mother developed delirium. I had not revealed that she was an alcoholic. The following day, I was sitting at her bedside when the senior registrar asked me to take a tube of her blood to the lab for clotting factors; she had continued to bleed after surgery. Feeling hopeful and responsible, I got to the lab as it was closing and the technician refused to take the sample. My mother slipped into coma and a few days later died, without recovering consciousness.

By the time the charter class graduated in 1980, the problems of accomplishing the goal of training a new breed of humanistic primary care physicians and its likely failure were already apparent. In 2010, when I was invited to give an address to the graduating residents in psychiatry 30 years later, the founding principles were long forgotten and Wright State was a medical school like any other. But I was delighted to see that the Department of Psychiatry was thriving under the Chairmanship of a former resident I taught in Cincinnati. I chose a satirical title for my talk, “A 15 minute ed-check,” a play on words to reflect the widely expressed contemporary concern that psychiatrists were little more than pill-pushers, poorly trained in psychological understanding and psychodynamic principles. Instead, the Wright State program was known and respected for having shunned this false mind-body dualism by developing innovative ways to train psychiatrists with sophisticated biopsychosocial knowledge and talent (Blackwell 2012a).

Earlier, in 1985, with hindsight, I had written an editorial for *General Hospital Psychiatry* titled, “Medical Education and Modest Educations” (Blackwell 1985). It discussed the sources of failure, citing as an example the failure of our experiment with *The Student Cadaver Encounter* (Blackwell et al. 1979):

> “Others have documented, tongue in cheek, the difficulties of designing a ‘benign behavioral health course.’ The fate of one such experiment can probably serve as a stereotype for similar efforts. The concerns that are voiced about medical practice and the biomedical model originate from the time when Christian orthodoxy permitted dissection of the body provided that strict segregation was kept between the physician’s province of the body and the church’s domain of the mind and spirit. This dichotomy fostered an attitude in which life is stripped of its social and psychologic complexity and reduced to a technology reliant on physical phenomena. In medical school, this dualistic approach is fostered by the

psychologic defenses students mobilize to cope with exposure to the cadaver. We designed an experience to heighten the student's awareness of this situation and its relevance to future practice. Faculty from the departments of anatomy, pathology, psychiatry and the humanities met the students on the first day of class to discuss their feelings and formally share in the introduction to their cadaver. That evening the student wrote a fictional biography of the cadaver and the next day shared this and the experience of their first dissection alongside the faculty. A content analysis of the essays found them to be somewhat mundane and mainly influenced by autobiographical details.

"The experience in humanizing the student-cadaver encounter was originally popular with the charter class but failed to survive for reasons intrinsic to the problems of changing traditional medical education. In order to create a summer break for students the task of dissecting the entire body was condensed from two semesters to one. Some of the founding faculty who designed the class left, and were replaced by more skeptical faculty. The class size expanded, made up of fewer idealists and more traditional students; after three years tension between students and faculty was such that the experiment was dropped. The paradox is that the very scientific advances that create a need for humanism simultaneously crowd it out of the curriculum; philosophy confronted logistics and lost. Our failure was symbolized when a student who participated in the experiment cut the penis off his cadaver and flashed it on campus.

"On further reflection my conclusion was that there is a limited degree to which education can abbreviate experience and a greater extent to which time tempers science with the art of medicine. Physicians often discover equanimity when they relax after years in practice and find their encounters are enhanced if they are able to share their own and their patient's beliefs and uncertainties. In return for more modest expectations about what medical education can accomplish, the profession may feel less frustrated, the public less disappointed and individual practitioners less prone to impairment."

In 1980, I accepted an interesting but different challenge. A well established and traditional medical school at the University of Wisconsin was seeking to expand its urban training experiences for residents and medical students by opening a campus in Milwaukee with its large inner-city population of underserved citizens in poor health, many living in poverty without health insurance, particularly those with severe mental illness.

The Jewish hospital, Mount Sinai, was eager to preserve its inner city location but under financial pressure to move to the affluent suburbs. This became a “marriage of convenience”; the hospital hoped an academic affiliation would enhance prestige, attract patients and fill beds while the revenue derived would fund faculty salaries.

The challenge of again creating an entirely new department but in a completely different environment was appealing, especially when the Dean, during a recruitment interview, assured me the finances were “as safe as Fort Knox,” a prediction that would prove wildly inaccurate due to an unforeseen but impending healthcare holocaust.

I was Chair of the Department at the Milwaukee Clinical Campus of the University of Wisconsin at Madison from 1980 until 1994 with joint appointments in Medicine and Psychiatry. During this time, we recruited a talented faculty, obtained accreditation of a new residency program at the first attempt and were able to fill our slots with a mix of American and foreign graduates. Collaboration with colleagues in medicine was excellent, cemented by joint research and teaching projects, including my management of the consultation-liaison service. Working with residents from both medicine and psychiatry allowed me to teach the biopsychosocial model we had developed in Cincinnati and incorporated at Wright State. I was able to adapt the illness behavior model to the benevolent care of patients in primary care, who had unexplained bodily concerns (Blackwell and De Morgan 1996) as well as promoting an approach to developing a therapeutic alliance to deal with the ubiquitous problem of compliance (Blackwell 1996).

Among the research projects was a continuation of interest in development of the physician role, moving from medical student to resident. Norman Cousins had published his provocative editorial in a leading medical journal, describing residency training as “the weakest link in the entire chain of medical education.” Aware of the rate of resident suicides, Cousins questioned whether residency was “a legitimate preparation for practice or a hazardous form of hazing.”

Together with a senior faculty psychologist and the Chief Medical Resident (a woman), we developed a 60-item questionnaire to measure attitudes, stressors and coping strategies during residency training. It was mailed to more than 1,000 residents in all the primary care and specialty programs in Wisconsin during 1992, endorsed by the Chief Resident in each program. The results were published in *General Hospital Psychiatry* (Blackwell, Gutmann and Jewel 1984).

The results are summarized as follows: "Successful role adoption (making difficult decisions, displaying leadership, dealing with uncertainty, being responsible for patient care), is the primary task of residency, balanced by an increasing stress in maintaining personal social support systems in family and peer groups. Work factors that create tension between these two aspects create the most stress. The degree to which role adoption is accomplished, the stress imposed and coping strategies employed, differ significantly with gender, specialty and program type."

Homelessness

Particularly interesting was work we were able to do with the large homeless population in Milwaukee - a lead city in the Robert Wood Johnson and Pew Foundation nationally funded project of $25 million awarded to 45 cities during a four-year period (1985-1989). It was administered by a National Committee of five city Mayors, chaired by the Mayor of Milwaukee.

Data was collected from 63,000 homeless men and women from 1895-1987 in 17 selected cities and published in *Under the Safety Net* (Brickner 1990). I was invited to co-ordinate and write the chapter on "Psychiatric and Mental Health Services," a collaborative effort with contributions from personnel in Albuquerque, Baltimore, Milwaukee and San Francisco (Blackwell et al. 1990).

Homelessness is a paradigm for studying what David Healy describes in his opening sentence as, "the pull of medicine between disorders that arise from and take root in an individual and disorders that arise from without."

In background research for our chapter. I came across a quotation by Sigmund Freud to the Fifth International Psychoanalytic Conference at Budapest in 1918: "One may reasonably expect that at some time or other the conscience of the community will awake and admonish it that the poor man has just as much right to help for his mind … The task will then arise for us to adapt our techniques to the new conditions. Possibly we may often be able to achieve something if we combine aid to the mind with material support."

Working *pro bono* in a free clinic for the homeless quickly taught me the lesson that helping them began with the problems that "arise from without." Failing clothing, food and shelter little or nothing could be accomplished with what "comes from within." Because our data set is so unique and informative to the issues raised by David, I will quote from the synopsis derived from it:

> "Homelessness is multiply determined, contributed to by both socioeconomic and clinical factors. The former includes societal problems such as increasing poverty, reduced availability of low income housing, lack of affordable health care and stringent eligibility rules or long waits for disability benefits, as well as neighborhood resistance to group homes. Provision of adequate community support has been limited by failure of mental health centers to attend to the needs of the chronic population, failure to shift resources from closed institutions into the community, failure to develop new support programs or residential facilities and the absence of linkages between agencies.
>
> "Clinically the homeless often display poor social skills, thinking or judgement may be clouded by psychosis, substance abuse or side effects, behaviors often appear bizarre and impulses may be poorly controlled. These ailments diminish the capability to garner resources but also invite discrimination and stereotyping. Finally, commitment laws often discourage treatment until violence is imminent or has occurred, contributing to the criminalization and incarceration of the mentally ill, often for minor crimes or misdemeanors.
>
> "The process of homelessness often involves disconnection from family and friends and a difficulty with affiliation is sometimes a component of psychiatric disorders, childhood abuse or a consequence of victimization and crime."

The following vignette provides a picture of the problems and difficulties in treatment:

> "Mike H. was referred to the homeless outreach team by a waitress from a coffee shop on the outskirts of the city. When first seen his appearance was rough and

> dirty, his clothes were disheveled and he emitted a foul body odor. Mike explained he had been on the streets for almost twelve years and that he was trapped there by evil spirits and demons that made up the ‘masonry of the universe.’ They kept him from leaving a four-block area within which he slept in a sleeping bag on the steps of a local church.
>
> “The outreach team visited Mike two or three times weekly, taking food and candy, often buying him coffee. They sat with him on the sidewalk, listening, offering advice and coaxing him to venture in their van outside his area. Little by little the team members gained his trust; he became more comfortable with them and seemed to look forward to their visits. The team’s next step was to obtain Social Security benefits. A field representative met Mike in the coffee shop and completed the paperwork. Next the team found a psychiatrist willing to conduct an evaluation outside his office. Attracted by the possibility of obtaining income, Mike agreed and they met on a street corner within Mike’s safe zone. The psychiatrist confirmed a diagnosis of paranoid schizophrenia. Among other things Mike told him, ‘I see eyeballs and stuff; heads and eyeballs are hanging there. Spirits tell me the bodies are controlled by computers, just sad, soul-destroying things. The bodies are pre-engineered.’
>
> “As Mike’s trust in the team grew, he ventured outside the boundaries of his domain and agreed to accept a community support program as his payee after the Social Security was awarded. Once in the program he agreed to take medication, and is now stabilized and living in housing. The outreach team continues to see Mike weekly and finds he has made other friends he visits regularly.”

As occasionally happens, this bold initiative by two private Foundations provoked Congress to take action. This began with the McKinney legislation in 1987, followed in 1990 by an Interagency Task Force on Homelessness and Mental Illness. I was recruited by NIMH to become Staff Director to the Task Force and moved from Milwaukee to Washington DC in October 1990 on a planned 18-month sabbatical, separated from my wife and young son.

I soon became frustrated and miserable in a political environment. I arrived to find I had no designated office, telephone, and secretary or parking place. An essay I wrote, “Inside the NIMH” (Blackwell 1992), describes the atmosphere: “The smallest matters are repeatedly scrutinized; plans are made and remade, doing and undoing in search for safe perfection. The interaction between the political paranoia, bureaucratic system and inadequate infrastructure was stultifying.” Perhaps an important lesson derives from becoming involved in attempting to deal with large disorders that require political action at the macro-level. As physicians we inevitably operate at the micro-level capable of small changes but are paralyzed by the major problems such as violence, housing, entitlements or some of the problems that engulf us in healthcare.

A Health Care Holocaust

In Milwaukee, before and after the abbreviated sabbatical, changes in healthcare were occurring in ways that would impinge on, and eventually destroy, an environment conducive to practicing and teaching a model of medicine that dealt with an individual’s manifestations of health and disease.

These events are succinctly described in a “Piece of My Mind,” published in *JAMA* (Blackwell 1994), titled “No Margin, No Mission”:

> “For psychiatric educators, like me, who direct a consultation-liaison service, the integration of mind and body has always presented a clinical and pedagogic challenge that is being accentuated by the economic environment and recent influx of managed care. When I first came to work in our urban teaching hospital 13 years ago in 1980, the inner city was served by five hospitals; four have since merged and then gone bankrupt, and ours is the only one remaining. As each of the others closed it passed on its population of uninsured, underfunded Medicare and Medicaid patients. The State of Wisconsin took two actions that unwittingly made matters worse for our impoverished institution. It deregulated hospital construction, inviting an influx of for-profit psychiatric hospitals, siphoning patients with indemnity insurance to the suburbs. This simultaneously reduced the number of people receiving integrated care in my hospital and increased its economic plight by limiting cost shifting. Second, the state obtained a federal waiver from the

Medicaid freedom of choice stipulation and placed the city’s entire welfare population of mothers and children into health maintenance organizations (HMO’s) although they had more complex and costly conditions.

“Many of these patients customarily received care in our hospital, and I and my colleagues lobbied to provide it. But by the mid-1980’s hospital administrators had learned the lessons of survival and the language of the business schools with such slogans as ‘No margin, no mission’and ‘Every bucket must carry its own water.’ Hospitals and HMO’s began to barter with each other, ratcheting down fees and divesting themselves of expensive Medicaid subpopulations to low cost providers. Recently our hospital sold its entire HMO population to a national organization, which divested the mental health capitation to its “behavioral health” subsidiary. They in turn kept the commercial patients but sub-capitated the Medicaid population to yet another agency unaffiliated with our institution. The sickest and poorest of our patients and those in most need of integrated care could no longer obtain my services in the same hospital where my colleagues cared for their medical needs. Clearly this was not what Congress had intended when it mandated that Medicaid patients should obtain both their medical and psychiatric care in general hospitals.

“Recently I was asked to offer a consultation on a man with acute post-surgical delirium whose HMO had sub-capitated its mental health services to another hospital. First, I was asked questions I could only answer if my consultation had already been performed, and then the patient was offered an outpatient appointment. Finally, when I explained the patient was pulling out his intravenous lines and needed immediate attention my inquisitor asked: ‘What is delirium?’ Such ‘little battles’ sometimes yield grudging approval; others end in delay or denial, necessitating a lengthy appeal that is often not responded to.

“As managed care looms, some of its implications need closer scrutiny. Few people, me included, doubt the need to control mental health costs. Vague end points, diagnostic ambiguity, and elastic interventions create considerable ‘moral hazard’ which can readily jeopardize a capitated system. Some element of management is inevitable. In HMO's primary care providers have traditionally served as gatekeepers to specialty care (as they do in the British NHS). However, presumably because they are considered ill equipped to do so in psychiatry, it's now become traditional for HMO's to separate the capitation for medical services from that of mental health and substance abuse. Access to care is limited or approved by telephone managers and medically untrained case managers. The system is often referred to as a 'carve-out.' This appropriate surgical metaphor is softened by adding the prefix 'behavioral health carve-out.'

"But there is a tradition to the use of the word *'behavioral'* in medicine that is associated with the application of psychological principles to medical practice. The new usage of the term '*behavioral'* has become a synonym for all psychiatric services. Paradoxically, 'behavioral health carve-out' describes the segregation of psychiatric and medical services, the polar opposite of the original meaning of the term.

"This is not only antithetical to the 'biopsychosocial' treatment model that educators like me espouse, but it has paradoxical insurance implications. A frequent argument to support provision of mental health services is they produce a reciprocal reduction in the costs of general medical care (the so-called offset). I cannot see how this is facilitated by dividing the patient's care into separate domains. In my experience, once the capitation is split 'health maintenance' occurs in name only. Neither side willingly accepts fiscal responsibility for primary or secondary preventative programs such as smoking cessation, weight control, and pain management.

"Of broader concern is the question of access of the general population to mental health services. A majority of contemporary mental health care is provided by the primary care sector. Can this population be diverted to the specialty mental health sector? If so, people with psychosomatic complaints are likely to be seen by the least expensive mental health provider and doubly deprived of physician contact.

> "In community hospitals like mine psychiatric educators must prepare to have their philosophical assumptions and populations they serve compromised and eroded. Clinical revenue to support faculty positions may dwindle and physician role models who teach mind-body medicine to students and residents will be endangered. As educators we are learning a hard lesson: no margin no mission."

By the time this essay was published, the writing was on the wall; the remaining Milwaukee hospitals had coalesced into three major coalitions as allegedly "not for profit" entities but with an eagle eye on their bottom lines. Primary care and specialties like psychiatry based on personal care and without remunerative technical procedures were doomed. The largest, most aggressive of these organizations took over Mt. Sinai which became known as Aurora-Sinai. The Dean fled back to Madison, I stepped down as Chair and within two years, Aurora pulled the plug on the psychiatric inpatient service, effectively ending the residency and disbanding the academic program. Internal Medicine and Family Medicine lasted a little longer, until Aurora issued an edict that faculty were no longer to treat Medicaid patients. Those who refused were asked to resign or fired. Those who submitted became "Aurora doctors" but no longer faculty. There was no one to teach and no patients to teach on. The former Chair of family medicine joined Aurora, later became its CEO and is now earning over $4 million annually.

After I retired in 1998, at age 64, I abandoned medicine and enrolled as a lay student in the local Catholic Seminary. I gave up medicine (but not sex) to begin a Master's degree in Applied Pastoral Studies, exploring my long neglected spiritual side and attending excellent small classes, alongside young seminarians and middle-aged women seeking second careers as administrators in parishes to help the priest shortage. Eventually, I realized I was "spiritually handicapped" and returned to work part-time as the only psychiatrist at Catholic Charities, caring for indigent and Medicaid patients, who could not find a private psychiatrist willing to take their insurance. Following this, I worked for four years, again as the sole psychiatrist, in the Wisconsin Correctional System taking care of that half of the population in a Womens' Minimum Security Prison who had a mental illness often embedded in a matrix of economic and social problems that received scant attention, inviting recidivism.

In 2007, I attended the annual meeting of the ACNP in Boca Raton to undertake my interview for the 10 volume Oral History Project (OHP), edited by Tom Ban in time for the

ACNP's 50th Anniversary in 2011. Tom invited me to join him in this enterprise and I ended up editing two volumes and writing over 50 brief biographies of pioneer neuroscientists (*dramatis personae)*. After publication, when Tom founded the INHN and its website, I contributed full length biographies of selected scientists and clinicians (See *Biographies* on INHN.org).

This body of work provided insights into the career patterns and modus operandi of these pioneers. They make a mockery of any stereotype of a "biological psychiatrist." Without exception (a bold assertion), these men and women personify the "complete physician and scientist" devoted to exploring both the inner workings of the brain and the forces, internal and external that influence its productions as thoughts, feelings and behaviors.

What it also provided, by osmosis and more than 45 years as a member of ACNP is a perspective on how far the organization had drifted from its founding principles.

Sea Change or Tsunami?

Barry Blackwell (2012)

Hypothesis One: History is more or less bunk. It's tradition. We don't want tradition. We want to live in the present and the only history that's worth a tinker's damn is the history we make today. (Henry Ford)

Hypothesis Two: What's past is prologue (William Shakespeare – *(The Tempest)*

This rather volatile and unpublished essay, was written only for distribution by e-mail to all the members of the ACNP (David Healey is not a member). It produced modest approval from a handful of ageing members, mostly clinical psychopharmacologists, and stony silence from basic neuroscientists and leadership. It is published in my Memoir, *Bits and Pieces of a Psychiatrist's Life* (Blackwell 2012).

> "I read the President's September First and earlier blogs and also received the *ACNP Bulletin* (Volume 17) describing a 'Sea Change' in the format of the annual meeting. This derives from the President's mandate to the program chair to minimize the past, pay no respect to stature, rank or seniority and provide every opportunity to the young and inexperienced. This is consistent with the President's declared libertarian beliefs that are defined in the *Oxford English Dictionary* as 'an extreme laissez-fairer philosophy advocating only minimal intervention in the lives

of citizens.’ His blogs make it clear the President attributes the ACNP’s current ailments to a complacent oligarchy of old-timers, who have stifled youth and innovation. Consequently, the ingredients of the ‘Sea Change’ are mini-panels devoid of discussion and a ‘data blitz’ of apprentice investigators presenting ‘rigorously timed five-minute presentations.’ This might be a laudable experiment in normal circumstances, but current problems confronting ACNP merit a response more appropriate to a tsunami than a sea change. To extend the maritime metaphor - this sounds like a ‘ship of fools’ crewed by midshipmen, heading for an iceberg. Will the officers remain on the bridge and go down with the ship?

“Satire aside, there are serious concerns about what this belief system and its simplistic solutions have drowned out. As a Life Fellow since 1970, I was active in the ACNP’s earlier years but drifted away to pursue other interests before returning two years ago to assist in work on the OHP. This complemented my earlier work on *Discoveries in Biological Psychiatry.*

“In both these data bases, most of the pioneers were experienced clinicians with long exposure to large populations with untreated severe and persistent mental illness, mostly in nonacademic settings, including the VA, state hospitals, and private practice. They became motivated by dramatic changes they saw in people never previously exposed to effective treatment, and they quickly developed valid, reliable rating instruments and research protocols. They also recognized, from the start, the need for close collaboration and communication with basic scientists in an extended environment conducive to translational dialogue. This is why and how the ACNP was born in 1961.

“For the first decade (1962-1972), this was a fruitful enterprise driven by intellectual curiosity and a profound desire to help people with severe mental illness return from asylums to life in the community. They succeeded but this atmosphere, its motivations and rewards, were quickly and progressively eroded and no longer exist. Over the next four decades (1972-2012), the complexity of mental function and the difficulty of translational dialogue became increasingly clear.

“Receptors, enzymes, and transmitters, often with manifold functions were modulated by multiple messengers. Genes, like Shakespeare’s sorrows, came ‘not as single spies but in battalions,’ expressing themselves in uncertain ways and frustrating fifty years of wasted effort on the DSM fantasy that phenotypes, derived by political consensus, might be linked to drug function and specificity.

“In short, neuroscience prospered while psychopharmacology dwindled. The only truly innovative drug discovered in forty fallow years of research was Viagra. Decades after chlorpromazine, serendipity still colludes with science in unexpected ways and places!

“While worthwhile improvements in clinical care were minimal, there was insidious, perhaps understandable, erosion of scientific motivation away from curiosity and concern in favor of fame and fortune. This coincided with a shift from clinical to academic settings as psychoanalytic hegemony yielded slowly to psychopharmacology and neuroscience. Fame became congruent with prolific resumes, publication citations, academic promotion, prizes and awards. Fortune was fed by industry largesse and emulation of profit making procedures; universities filed patents, investigators founded for-profit corporations and faculty signed contracts to endorse new drugs with dubious benefits and dangerous side effects. The highly touted ‘second generation’ drugs were dressed in the Emperor’s clothes, designed by creative marketing forces and endorsed by willing academics.

“All this was fed by gargantuan pharmaceutical profits, generated by a rapidly expanding market, itself the product of direct, often misleading, advertising to the public. This was enabled by lax FDA standards and oversight in an era of political deregulation and national corporate greed. Big Pharma profits were directed toward infiltrating and influencing scientific organizations, meeting agendas, medical school curriculum, practicing physician’s prescribing habits and academic psychiatrists’ political influence, including leadership of professional organizations. Not to mention lobbying Congress in favor of deregulation.

“Corporate dominance and degradation of drug research was facilitated by a change in Federal funding priorities from clinical to basic neurosciences and genetics with the concurrent closure of NIMH funded drug research via the national clinical drug evaluation units (NCDEU). FDA, industry and academia clung too long to RCT’s as the gold standard for efficacy and safety. Short in numbers and duration but sufficient for statistical conclusions, RCTs lacked real life validity and were an absurdly low hurdle for marketing approval without mandatory effectiveness studies compared to generic alternatives. Instead, industry has designed, implemented and outsourced its own placebo controlled studies then analyzed, co-authored or ‘bottom drawered’ the results to meet commercial goals. Poster citations sometimes substitute for peer reviewed journals.

“ACNP did little to oppose these changes; instead it swam with the tide. Its membership ballooned to include a majority of basic and jointly trained members, accompanied by a dramatic decline in sophisticated clinical researchers. Increased attention was given to programs devoted or linked to posters on esoteric neuroscience topics by multiple authors (sometimes twenty or more) with little or no clinical relevance and not subjected to independent review. Ethical guidelines were promulgated but little was done to enforce them or sanction those who violated them. Members dutifully recited their corporate affiliations but nobody cared that naming a conflict of interest did not eliminate it.

“It is doubtful if the founding members of ACNP would recognize or endorse its current form. But if, or how change can occur is highly questionable when foxes are loose in the hen house. But if ever there was a time for fundamental and decisive leadership, it is now. Laissez-faire principles and bottom up tinkering are hardly the answer.

“Not only does libertarian philosophy shun authority and experience, but it subscribes to Ford’s epigram; ‘history is bunk.’ What followed was the Edsel, the biggest design failure in the history of the automotive industry. The ACNP has entered an Edsel era. It will not be bailed out this time by government or industry. Big Pharma has killed the golden egg by degrading clinical research and making

> manifestly false claims for its products. Slender profits from generics may further trim its sails, although some smaller firms are establishing monopolies and raising prices to outrageous levels. Tea Party deficit hawks and Congressional investigative committees may yet stifle some of the symbiotic greed that binds academia to industry.
>
> “As a result, slim economic times might shrink the ACNP, shed some of its fortune seekers and citation hunters and revive the lost commitment to better, safer, more affordable treatments, evaluated by skilled clinicians, free from commercial incentives and motivated by love of science and concern for their patients.”

That is the way it once was. One final maritime metaphor describes how it is today. The ACNP is like a ship cut from its moorings, adrift on the ocean. It has failed in its two primary purposes; sophisticated, productive, ethical research translated into safe, effective, affordable treatments derived from creative, relevant basic science. Instead, a core of distinguished and talented clinicians is dwindling and dying, unenlightened by their translational aspirations. Should the ship be salvaged or allowed to sink?

One possibility would be to recommission the vessel as the “American College of Neuroscience” (ACNS) and vigorously advocate for the revival of a Federal Drug Evaluation Program (FDEP). Its task would be threefold. The first would be to conduct small intensive studies designed to link individual drug response to the genotype and its phenotype using symptom specific rating scales and avoiding DSM categories of disorders. The second would be to use this seedbed for the selection of novel compounds to compare to generic prototypes in studies of sufficient size, statistical power and duration to ensure safety, efficacy, generalizability and economic utility. These studies would be funded but not managed by pharmaceutical companies in return for patent rights on genuinely innovative and cost-effective compounds. Direct advertising to consumers would be banned. The third task would follow naturally from the first two; the creation of a new cadre of highly trained and well paid investigators with lengthy tenure coupled to incentives for productivity and creativity. These scientists would be encouraged to obtain academic appointments but forbidden to engage in any industry involvement during or following their federal contracts.

The renamed ACNS would meet regularly with the FDEP investigators to discuss potential translational topics, carefully chosen by independent peers free of commercial conflicts of influence. Annual meetings would be modelled on the early ACNP principles with limited attendance and leisurely agendas, conducive to extended and collegial dialogue. Participation and funding by industry would be encouraged but without involvement in the selection of topics or compounds.

The currents and tides swirling around the ACNP are symbolic of a tsunami, not a sea change. Proportionate prophylactic action is called for.

Unique to America

The two single case vignettes given earlier **(Intrinsic and Extrinsic Factors)** set the stage for understanding changes in health care unique to America. Because we do not have a government run "single payer" system, other than Medicaid and Medicare, access to treatment and what that involves is controlled and governed primarily by for profit insurance companies and to a lesser extent by alleged "not for profit" health care corporations with an eagle eye on their bottom lines and bloated administrative salaries, **(No margin, no mission).**

Until the early 21st century, people with severe and persistent mental illness (SMI) were denied health care insurance in the private sector. There was no parity between medical and mental health coverage and, even if applied for, it was routinely rejected as a "pre-existing condition", since almost all SMI conditions begin in adolescence or early adult life. Even after parity was mandated by Congress, the Federal Government was slow to issue guidelines and reluctant to enforce them.

As told earlier, people like Joe with complex medical and psychiatric problems were later denied the services of psychiatrists skilled in this arena by means of insurance "carve-outs". Others, like Sophie, where the intricate interplay of medication and psychotherapy is crucial to sound singular management, had these two components severed. It was cheaper to purchase therapy from lower cost providers (psychologists, social workers and assorted mental health counsellors) and limit psychiatrists to medication management (15-minute med-checks). No requirement or payment was made for interdisciplinary dialog.

Mammon and Modern Medicine

Mammon is an archaic word of uncertain, possibly Aramaic, origin. In the Bible, it refers to a deity, personifying greed or avarice but no such God has been uncovered. I like to imagine Mammon was the twin brother of Midas, cornering the market on creating money and hoarding it. The M&M twins? In contemporary usage, devotion to Mammon conveys the antithesis of charity and benevolence, so it is often invoked to imply the lack of responsibility by an individual to maintain a balance between acquisition of wealth and generosity towards others in need.

In medicine, technology has purchased affluence and stifled empathy. Like alcohol, opiates and nicotine, money is addictive; its brand name is greed and, measured in millions, it is as infectious as influenza.

At age 81, I now live at the distal end of the stethoscope, a problem to be solved, seldom a person to be understood, often an aggrieved patient, greeted by Mammon in a doctor's office. An illustrative vignette is recorded in my memoir (Blackwell 2012c):

> "In the mid 1990's I acquired a kidney stone, too large to pass, which required the services of our itinerant community lithotripter. Awaiting my turn in the hospital, a urologist inserted a stent in my ureter, creating passage for the coming fragments of stone.
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> "Soon after discharge, still recovering from a savage attack of pseudo-gout and wrapped in a protective diaper, I visited the urologist's outpatient clinic. The crowded office was festooned with notices warning of the dire consequences for unpaid bills. An hour later, a nurse shunted me into an empty cubicle where I stripped naked and robed myself in one of those scanty and revealing hospital gowns. After a significant time lapse, I was ushered into the urologist's suite; he was absent, but I climbed onto the cold metal operating table with my legs placed in stirrups, ready for the scope to be inserted into my penis to withdraw the stent.
>
> "At this moment, the nurse, previously silent, thrust a sheet of paper into my hands, instructing me to read and sign it. But I had left my glasses along with my clothes. So, I invited her to do the reading for me. In a voice filled with purpose but devoid

> of feeling, she said, “If Medicare refuses to authorize the procedure the urologist is about to perform, I acknowledge full responsibility for the cost.” Realizing I could not live with a stent in my ureter for life, I did my best to append a signature without my glasses and, like any other patient, kept my mouth shut. You don’t want to piss off your surgeon as he is about to perform a delicate procedure.”

At the medical school where my son graduated, outside the library, stands a more than life size statue of Hippocrates. Reciting his oath is a rite of passage at graduation. In its classical form, translated from Greek, the opening statement says: “To hold him who has taught me this art as equal to my parents and to live my life in partnership with him, and *if he is in need of money to give him a share of mine,* and to regard his offspring as equal to my brothers in male lineage and to teach them this art, if they desire to learn it, *without fee or covenant”* (italics added).

After the Flexner revolution, as science and technology invaded the curriculum, Mammon was doing well in the run-up to the Great Depression. Some schools chose to drop the Hippocratic Oath and any mention of fiscal generosity to the needy, including fellow practitioners and students.

Other schools substituted the Oath of Maimonides, which includes the statement: “May the love of my art activate me at all times, may neither *avarice nor miserliness* (italics added), nor thirst for glory, or for a great reputation engage my mind.”

Finally, a so-called “modern version”, was crafted in 1964 by Lou Lasagna, father of modern clinical pharmacology, when he was Dean at Tuft’s University. This Oath leaves out all mention of generosity to peers or students but does state: “I will remember that I do not treat a fever chart or a cancerous growth but a sick human being whose illness may affect the person’s family and *economic stability”* (Italics added).

When I edited Volume 7 of the OHP, I dedicated it to Lou Lasagna, who was President of ACNP in 1980.

The way we treat our colleagues and students today has more to do with Mammon than any of the oaths we ask our students to swear by. “Professional courtesy” disappeared during the early 1980s and in the 1990s, medical schools began escalating tuition and stopped providing health care to students. In 1992, the average debt of a new doctor was around $25,000. By 2010, when my son was a student at the local medical school, tuition was $40,000 a year and the accumulated debt averaged $160,000, while a quarter of students owed more than $200,000. Despite having a large flourishing practice organization staffed by faculty, students were not provided health care. Those over age 26, like my son, were ineligible to be on their parent's insurance, but were offered an additional $10,000 a year loan to buy insurance. Adam declined, applied for and was granted Medicaid and offered food stamps.

Burdened by debt, graduating students choose careers in lucrative, procedure oriented specialties, turning their backs on the 'talking' professions, including family medicine, pediatrics, psychiatry and geriatrics. So, the doctors most likely to detect and deal with disease in its social matrix at its earliest and most treatable time are shrinking in numbers while specialists know more about less but become wealthy faster.

The doctors who remain in primary care often become salaried employees of large healthcare corporations, seduced by high salaries and freedom from practice management. But they are constrained by "productivity" criteria that reward quantity not quality, encouraging them to spurn complex, chronic or time-consuming patients, such as those on Medicaid and Medicare.

King Canute and the Waves

12th Century legend (Henry of Huntingdon)

This ancient legend is most often misquoted as illustrating the King's arrogance by claiming he could stop the tide coming in by commanding it to stop. In fact, he gathered his flattering courtiers around to demonstrate the opposite. It was actually an act of humility:

> "Continuing to rise as usual, the tide dashed over his feet and legs without respect to his royal person. Then the king leapt backwards, saying, let all men know how empty and worthless is the power of kings, for there is none worthy of the name, but He whom heaven, earth, and sea obey by eternal laws." He then hung his gold crown on a crucifix, and never wore it again "to the honor of God the almighty King."

So, an event often misquoted as demonstrating hubris is actually an act of humility.

The relevance of this metaphor in its broadest (not religious) interpretation is that powerful, naturally occurring phenomena, can challenge and frustrate the most determined and diligent protagonist. Familiar with the biographies of many leading psychopharmacologists, it is impressive how often a changing economic, political, social or scientific Zeitgeist has intruded in their careers or obstructed their plans. David Healy catalogues many such fluctuations in the evolution of ideologies influencing his hypotheses about social change in the balance of public attention to intrinsic and extrinsic factors influencing healthcare, going back centuries. My own career trajectory has been influenced also by political and economic forces and changing patterns of healthcare delivery beyond my control, some peculiar to America but confined to the 20th and 21st Centuries. The editorial on "Medical Education and Modest Expectations" (Blackwell 1985) concludes: "There is no Holy Grail; like Canute I have learned that the tides of medical education cannot be turned."

Perhaps the major difference between our approaches is David's focus on changes in society at large, including the pharmaceutical industry, while mine has been confined more to changes within medical practice and medical education which I believe are the major determinants of how doctors and individuals view illness and disease, perhaps also the most important influence in shaping public beliefs. That said, we are united in our common concern about the "Shipwreck of the Singular." If we are to reverse this trend, the solution will lie, in America at least, in two areas. First, by strengthening the role of primary care practitioners as gatekeepers to specialty care, while assuring ready access to behavioral consultation and support for their patients. Secondly, removing the insurance barriers in America to integrative biopsychosocial care and restoring the psychiatrist's ability to provide it. This offers the best hope for singular and integrated care with preventative possibilities, as well as a reduction in healthcare costs overall.

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