

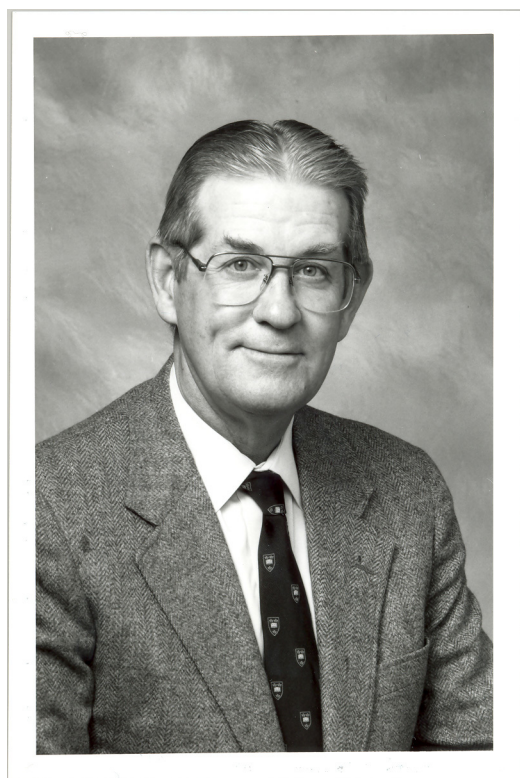


OBITUARIES

Barney Carroll: the conscience of psychiatry

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[Image: Credit: Duke University]

A pioneer in biological psychiatry, more recently Bernard Carroll (“Barney”) became a withering critic of its compromised ethics and corruption by industry. Shortly before his death, he helped prepare this obituary—his last chance to help correct the perverse incentives that too often influence the conduct and reporting of scientific research.

Barney’s scientific contribution to psychiatric research was to introduce neuroendocrine techniques. He independently discovered the value of the dexamethasone suppression test (DST) as a biomarker of melancholia—the classic, biologically driven subtype of depression. This was the first, and remains one of very few, biomarkers in psychiatry. Barney’s 1981 paper on the DST was among the most highly cited papers in

psychiatry. Its impact was immediate, with many replications and extensions.

Another of Barney’s enduring contributions was to educate colleagues in the discipline of proper clinical decision making. He clarified the Bayesian principle that context counts—that is, prior conditional probabilities greatly influence the utility of any clinical feature or laboratory test in making a diagnosis. Throughout medicine, biomarkers and clinical diagnostic features perform with much greater utility in high risk groups than in general populations.

Barney criticised the *Diagnostic and Statistical Manual* for innumerate failures to clarify the performance of diagnostic criteria and pointed out that candidate biomarkers often outperformed accepted symptomatic diagnostic criteria.

Scientific scepticism

A rigorous scientific sceptic, even about his own work, he refrained from claiming that the DST explained the aetiology of melancholia. He was critical of ill informed challenges to its clinical uses but opposed exaggerated claims for its role as a screening test.

Barney rejected grand biological theories that offered neat, simple-but-wrong explanations of psychopathology. Ever aware of the complexity of the human brain, he was an early rejecter of blind optimism that any simple imbalance of monoamine transmitters could account for the wide variety of mental disorders. More recently, he deplored the ubiquitous hype that suggested that genetics or neuroimaging or big data mining could provide simple answers to deeply complex questions. He predicted—presciently—that these powerful new tools would have great difficulty in producing solid, replicable findings that could be translated to clinical practice.

Barney had a wide range of research interests, never lacked for creative ideas, always had abundant funding from the National Institute of Mental Health (NIMH), and never depended on commercial drug trials. Even though he consulted disinterestedly with many drug companies, he joked that his main job was to dissuade them from wasting money on feeble drugs and foolish research.

Barney trained in Australia and at the University of Pennsylvania. In 1973 he established the clinical studies unit at the University of Michigan, a research service where he was

both clinical leader and research director. From 1973 to 1983 the unit trained many distinguished US and international fellows and pioneered a wide range of seminal studies.

Teacher and mentor

Barney was a great clinical teacher and mentor, who never hesitated to say: "I don't know the answer to that—let's look into it." No one had a better command of the scientific literature or was better able to translate it to the complex exigencies of clinical practice. By his quiet example, Barney influenced hundreds of psychiatrists, psychologists, social workers, and nurses, as well as basic neuroscientists, to become better clinicians, researchers, and educators. He was rigorous and demanding, but in the most nurturing and affable way.

In 1983 Barney accepted the chair of psychiatry at Duke University. He turned a respected department of psychiatry into a great one—recruiting new faculty members, increasing external grant support 10-fold (raising it to sixth in the US), improving clinical services, and forging research and residency training partnerships with the public sector. I followed Barney as chair and found it to be one of the easiest jobs in the world. All I had to do was coast on his coat tails.

"Experimercial" trials

During the past 20 years, Barney became a critic of weak science, of ethical lapses, and of industry's corruption of the research enterprise. He coined the term "experimercial" to describe clinical trials that were really disguised exercises in marketing. He relentlessly exposed undisclosed conflicts of interest, hidden commercial promotions, inadequate research designs, biased analyses, misleading conclusions, exaggerated claims, and ghost writing.

Barney became the conscience of psychiatry. With the frequent collaboration of Robert Rubin, he outed many high profile academic opinion leaders who had been co-opted by commercial interests.

Barney never flinched in his David and Goliath battle to restore truth and integrity to the psychiatric research enterprise. His exposés comprised ethics critiques as well as aesthetic disapproval of degraded standards and tawdry behaviour. Barney was also publicly critical of top-down bureaucratic initiatives from NIMH (for example, research domain criteria) that interfere

with the natural flow of scientific inquiry. He especially deplored the hijacking of nosology by the American Psychiatric Association and felt that DSM-5 sacrificed scientific improvement in its pursuit of sales. He liked to say nobody owns diagnostic criteria, and for sure nobody ever owned Barney Carroll.

Recalibrating ethics standards

Barney's "right" prevailed against institutional and commercial "might." He helped to force the current upgrades of editorial oversight and full disclosure now demanded by Nature Publishing Group, by AMA journals, and most journals. The publicity surrounding Barney's exposés triggered the conflict of interest inquiries conducted by Charles Grassley, chair of the US Senate Finance Committee, which had a profound impact on recalibrating ethics standards in all medical specialties. As he left us, Barney was encouraged by current trends towards improving transparency and increased integrity.

Looking to the future, on the scientific side Barney cautioned against the loss of independent investigators and the diversion of research resources by "big science" consortiums. On the ethics side, Barney's main unfinished work is an ongoing petition to Congress to update US Food and Drug Administration oversight of analyses and reporting of clinical trials.

Barney is remembered as a fair and generous colleague, an honest broker in review committees, a generative and avuncular mentor, a constant source of good ideas, a meticulous academic craftsman, and a tireless servant to the field. He did endless pro bono advocacy, editorial and committee work, and served as president of three professional societies. Barney was a great raconteur, a jolly companion, a dedicated writer of limericks, a courtly gentleman, a devoted husband and father, a wonderful friend, and a man for all seasons. He died as he lived—with grace, courage, and fortitude. Barney leaves his wife, Sylvia; a daughter; and a son.

Biography

Bernard J Carroll (b 1940; q 1964; MD, PhD), died from cancer on 10 September 2018

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