

Division 28: The Fifth President
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New disciplines emerge from the confluence of old ones, almost tracing a Hegelian synthesis. For the metamorphosis to occur, both the Thesis and the Antithesis have to connect in the same people. Examine the roster of our presidents. Count how many of us have been housed in settings where we were compelled to bestride, especially during our early years, a unique conjunction of behavioral science and pharmacology. We came from medical schools, drug houses, and research institutes. These environments enriched us because we had to become fluent in other languages and to explain ourselves in terms beyond the linguistic bounds of unitary disciplines.

Although I began my education in pharmacology while at the Air Force School of Aviation Medicine, in San Antonio, I assimilated most of it at Johns Hopkins in the company of Louis Lasagna and E.K. Marshall. Most of you will recognize Lasagna's name because of his contributions to the clinical pharmacology of psychoactive drugs. Marshall had succeeded J.J. Abel, often considered the founder of American pharmacology, as chair of Pharmacology and Experimental Therapeutics at Hopkins. By the time Vic Laties and I arrived in the mid 1950s, Marshall had already retired, but he spent countless mornings with us because Lasagna had been one of his students. Marshall's knowledge spanned the entire history of pharmacology; sometimes he could give you not just years of publication, but the page numbers of JPET where a particular article had appeared. I find significance in Marshall because he viewed pharmacology as a discipline to which

scientists trained in other disciplines brought their unique skills and perspectives to study drugs. He saw no inconsistency in psychologists assuming chairs in pharmacology. My predecessor, Larry Stein, was probably the first. Don McMillan, of the University of Arkansas, is another. Marshall would have been entirely comfortable with the current editor of JPET, John Harvey. Division 28 also flourished because it did not erect boundaries to participation or view itself as an exclusive club. Len Cook and Peter Dews were cherished colleagues.

Marshall's outlook also holds lessons for other psychologists. Publications such as the APA Monitor and the American Psychologist frequently publish articles describing a state of war between clinical psychologists and physicians. Many of us housed in medical schools and other institutions in which we collaborate with physicians find it difficult to sympathize with the rivalry because we present ourselves and are respected as scientists. Joe Brady, who will speak to you shortly, became acting chair of Psychiatry at Johns Hopkins because of his eminence in science. Of course, he had also invented a new form of non-directive therapy in which the therapist expressed his feelings and the patient responded "uh-huh." To me, the primary battle tactic should have been the adoption by clinical psychologists of the role of rigorous behavioral scientist enlisting psychiatrists as junior partners. How can you win when you adopt the tenets and fight on the familiar turf of your presumed opponents? And, if you want to secure prescribing privileges, construct your argument on the thesis that only the mastery of two disciplines, behavior science and pharmacology, equips one with the tools to evaluate the efficacy of drug treatment.

Division 28 reached out in many ways. During my tenure, it had accumulated enough resources to promote a grants program. We advertised for proposals, appointed an evaluation committee, and made several awards. Naturally, we looked for young investigators whose ideas and careers might be close enough to the threshold for productivity to scale it by the infusion of a few hundred dollars. Not much, but it reflected our optimism and a bit of evangelical fer-

vor. Some of that evangelism, and our eagerness to communicate with our pharmacologist colleagues convinced us to sponsor a multi-day symposium at the 1974 meetings of the Federation of American Societies for Experimental Biology (FASEB) under the aegis of the Pharmacology society, one of the constituent members. The papers from that symposium occupied an entire issue of *Federation Proceedings*, one of the premier life science journals. That issue was later reprinted as a book, *Current Status of Behavioral Pharmacology*. We had enough money in our treasury to supply every member of Division 28 with a copy of the journal. I urge you to inspect it, if you are too young to remember its original publication, and try to imagine what kind of impression it must have made on the vast audience of *Federation Proceedings* readers around the world.

You will see there the synthesis that made behavioral pharmacology so exciting. One of the sources of the excitement was the way in which some of the practitioners of that science used chemicals to ask questions about behavior rather than simply using behavior as a pharmacological assay system resembling a strip of gut. Chemicals could be used in the deconstruction of behavior; they unveiled unanticipated properties of behavior; they clarified sources of control.

Especially during those early years, many of us held joint membership in Divisions 25 and 28. We even joined in hospitality suites at APA meetings. The conjunction of the experimental analysis of behavior and the analysis of chemical modification of behavior seemed a natural one. My enthusiasm for introducing computer technology into the experimental analysis of behavior during the early 1960s stemmed from a desire to penetrate the behavioral mechanisms of drug action. Perhaps it was inevitable that we eventually would mature into divisions with distinct agendas and minuscule overlap. Two recent issues of JEAB reflect the gulf. One was devoted to Behavioral Dynamics, the other to Behavioral Pharmacology. The extent of mutual interests was disappointingly low, to the detriment of both disciplinary factions.

But I perceive more serious challenges to our science than that schism. The most insidious is the impact of molecular biology. Today the life sciences are entranced by possibilities such as picking up a fragment of DNA with a molecular tweezer and inserting it in another location. No one disputes its conquests or its enormous potential, but it threatens to displace other disciplines. Questions of technique seem often to overwhelm questions of science, even when the ultimate issues are behavioral. You can find Ph.D.'s in the life sciences -- molecular technicians -- who have never seen a live animal. Who will ask and answer those ultimate questions? In toxicology, how can molecular mechanisms quantify the risks of lead exposure when these are expressed by diminished IQ scores? In pharmacology, how can molecular mechanisms tell us how effectively a new drug, designed to couple with a specific receptor, will restore memory function in a demented patient? We have practiced our trade for over three decades; our mission is still fresh.