



Come to Think of It

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I am very happy to be here for this award. First off one is very happy being anywhere in a reasonably coherent state when you are in your eighties. Secondly, deep in retirement, awards are deeply appreciated. There is embedded in us the need to be affirmed—and affirmed and affirmed and affirmed. And retirement is not all that affirming. Retirement has a tendency to turn a person from Who's Who to Who is He. Daniel Schorr, in one of his many retirements, tells of the time a man came up to him and said "Didn't you used to be Daniel Schorr?" Last October The *APA Monitor* had a sleeping beauty on it's cover and the cover title was Sleep: Research and Practice. I eagerly thumbed to the section. Alas, not a mention of my name. Me, the guy, who was a leading character on the topic of sleep in every Introductory Text for decades. *Sic transit gloria mundi.*

Believe me. I really do appreciate this. My particular thanks go to, Don Dewsbury, my long time colleague, who did the spade work and those expert writers of letters of support which included six APA presidents whose friendship and eminence certainly help my cause. It is particularly appropriate that this is an award of Division 1 of General Psychology, a division that frequently seems to be going through an identity crisis. When I started my career veer into sleep research in the late 1950s it was not a hot topic to say the least. Finding journals for research papers and finding places on programs was no easy task. I remember one program chairman calling me to discuss the problem. I asked him if he had a General Psychology section. "Yes", he replied, "But sleep is not General enough".

I am going to review some eight choice points that lead me to being on this podium. I do this for several reasons. The first is simply self-indulgence, and since this is my occasion that should be permissible. Second, I was to use this opportunity to give to the younger of you a glimpse of a very different psychology. But more critically, I want use these incidents as a background for stating what I think psychology is not and what I wish for it to be in the future.

Choice point 1: I went to LSU. Of the people from Yazoo City, Mississippi who went to college, the city boys went to Ole Miss, the country boys went to Mississippi State A

& M and the girls, of course, went to the Mississippi State College for Women. But this was in deep depression times and my father had lost his lumberyard and my mother, who was from Louisiana, had a brother in Baton Rouge who could furnish me free room and board.

Choice point 2: I majored in Psychology. I was supposed to go to medical school. My great grandfather and grandfather had been physicians. But I played my way through three years and my only As were in English. Then, like so many others, I met my teacher—Dr. Harry Capps. He was a most unlikely person to be in the Louisiana Cajun country. He had just received his degree from Columbia University. He was born and raised in New York of an immigrant Jewish family, and, in retrospect, he was a closet homosexual. But he was brilliant and he was intensively excited about psychology. I spent the rest of the time at LSU earning As in all the courses that the psychology department had to offer. My mentor arranged an Assistantship at the University of Tennessee.

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Choice point 3: I went to Iowa. Capps had done his dissertation on epilepsy and I got a job in the Mississippi State Hospital for the Insane outside of Jackson, which, in those days of no available cures, was only a step up from Bedlam. I spent the weekends socializing with the lads and lasses of Jackson. A fraternity brother, a senior in the art school at Iowa, suggested I join him there with the arrangement that I become the fraternity house graduate advisor for room and board. Since this was considerably more than my assistantship at Tennessee I agreed. In those pre GRE and admission committees I simply enrolled at Iowa. Unbeknownst to me, I had entered one of the hot beds of psychology's graduate

programs. Still under the influence of Capps, I started off in clinical psychology which was growing out of Wendell Johnson's speech clinic.

Choice point 4: I went to war. In my first semester, on December 7th, 1941, Pearl Harbor happened. The Aviation Psychology Program of the Army Air Force, for months had been advertising the opportunity for enlistment and no one had taken notice of it. Within a few months half the males in the graduate program had marched off to war to join aviation psychology programs. I spent four years learning applied aviation research among some of the best young psychologists in the country and, in the process, I ended up on Okinawa flying on strike missions against Japan in search of valid combat criteria.

Choice point 5: I changed from clinical psychology to experimental psychology. I had been granted an MA on my thesis on the use of the Wechsler-Bellvue as a measure of mental deterioration that I finished while in service. However, Kenneth Spence had become chairman of the Department in our absence and his presence and the lure of neobehaviorism was irresistible in the 1940s. Furthermore clinical psychology was undeveloped and seemed to offer the bleak prospect of insane asylums.

I set out into the academic world by becoming an assistant professor at the University of Tennessee and switched to Washington University in St. Louis. In those days some three moves in your early years were typical. I was happily publishing three or four paper a year and was a swash-buckling teacher. These were the days before research grants were widely available and I began supplementing my income in the summers by doing contract research with the Air Force and Naval Aviation.

Choice point 6: I left the academic world. I became the head of the Aviation Psychology Laboratory at the Naval School of Aviation Medicine. I not sure I will ever be able to explain that great leap. But I had enjoyed the adventurous ways of applied psychology and certainly one factor was a big increase in salary which made a difference with four children. Choice point 7: I entered sleep research. The venue to my Laboratory was research on the selection and training of naval aviators. I had about a dozen research staff. My main job was to keep the staff focused on applied research. One certainty was that my six year investment in research and publishing in Hull-Spence learning theory was totally irrelevant and had to be abandoned. My own research became focused on aviation accidents.

One day, in our small library, I ran across Kleitman's remarkable book, *Sleep and Waking*, published in 1937. It summarized the extant research on sleep and waking. From somewhere my years of toiling in the vineyards of Hullian theorizing came flooding in. Why not consider sleep as a behavioral response and see if one could develop a theoretical system to predict and control sleep behavior. The physiology section of the School of Aviation medicine had a small rat laboratory. Within a year I had devised and completed an experiment which had varied drive level (time awake), habits (number of repetitions of

sleep in a marked environment) and an irrelevant drive (hungry/not hungry) to determine their effect on sleep latency. This was published in the *Journal of Experimental Psychology* in 1957.

Choice point 8: I returned to the Academic. As I had found with learning and motivation research, a research program requires a one-track orientation and I clearly could not join accident research and sleep research. Furthermore, although applied research is exciting and challenging as a problem solving activity, I didn't find it intellectually satisfying. In 1958 there was the opportunity to return to the academic world as Chairman at the University of Florida. I took that opportunity to begin my thirty-year journey into sleep research.

And now comes that inevitable moment of speeches on grand occasions, which is introduced by the phrase "But seriously...". So, I say, "but seriously" I would like to use my choice points to comment briefly on two related topics. What Psychology is not and what Psychology could and should be.

When I entered psychology in the late 1930s the introductory texts almost universally described prediction and control of behavior as the focus of psychology. This was the lingering legacy of the Watsonian revolution in pragmatic and utilitarian America. But I would point out that each of my choice points were completely unpredictable from the previous choice in point. Yazoo City did not predict LSU. My choice of psychology was dependent on an unlikely appearance of a teacher from New York. Iowa emerged from odd circumstances. The war was not predictable. This unpredictability from antecedents I believe is typical of all individual human behavior with the exception of those controlled by strong habits or physical constraints.

I do not find this surprising. When I emerged from the rat laboratories, where prediction and control is the touchstone of research, and entered accident research the unpredictability of behavior was quite apparent. It became epistemologically apparent when I examined the problem of attributions of causality in my presidential address to the Division of History in a paper entitled "Writing history and accident Reports: A metaphorical analysis" (Webb, 1998). I compared the writing of history to the writing of an accident report and to the answering of such psychological questions as "Why can't my Johnny read?" or "Why did he commit suicide" or "Why did he get a divorce?". I discussed the formidable problems of determining and attributing causality. The paper cited that notable expert in the search for the causes of behavioral acts, Sigmund Freud (1920). He acutely described the core of the problem: "So long as we trace the development (of an event) from the final outcome backwards, the chain of events appears continuous... But if we proceed in the reverse direction, if we start with the premises inferred from the analyses and try to follow these up to the final results, then we no longer get the impression of an inevitable sequence of events which could not have otherwise determined... in other words, from the knowledge of the premises we could not have

foretold the nature of the results" (Freud, 1920, pp 203-231)

More recently, Manicus and Secord (1983) presented a telling analysis of the problem: "On the realist view, events such as the collapse of bridges or a cancerous growth of an organ are the conjunction of causal processes operating in an open system ... in such events causal explanation ... requires retrodiction to possible causes and the elimination of alternatives ... Accordingly, we may often be in the position to explain some event once it has occurred, when it would have been impossible ... even in principle to predict it. (p. 403)."

I do not think that we can or will be able to predict individual behaviors. Although, on the basis of behavioral measures, such as test results, we can make probability predictions, most of our correlations coefficients linger well below .50, resulting in embarrassingly large numbers of individual false positives and negative predictions. As a consequence we cannot predict where or when violence will occur in the next school, which criminal will or will not return to prison, which student will graduate from college, who will die in an auto accident, which marriage will endure. That being the case to make psychology's central goal that of predicting behavior seems a folly.

As for controlling behavior we don't seem to be doing so well. So far as I know there we have not developed effective means of controlling individual behavior. I do not know of any effective psychologically developed methods of controlling addictions, weight problems, and recidivisms nor dispersing phobias or depressions or dyslexias. I think I know why. The exercise of control, whether in the conduct of research, the prevention of an accident or an unwanted behavior or the guidance of behavior to a desired end is effectively accomplished by one and only one means—the loss of individual freedom. And this core human virtue is clung to tenaciously.

If one is interested in the prediction of behavior I would advise them into entering such applied fields as polling or market research or personnel selection where probability figures may be useful. Or if interested in control I suggest that they enter into law enforcement or legislation.

What then is psychology? What is the common core that knits together my wandering from clinical psychology to animal learning to accident research to sleep research? What shapes the great diversities relating brains and correlation matrices, rats and neuroses, personnel selection and aesthetics? In a widely unread advanced general psychology text, *The Profession of Psychology (1962)*, I wrote that I believed that the common core that defines and binds all psychological pursuits was quite clear and simple. It is not some grand unifying theory, nor some central "natural philosophy", nor some vital force. It is simply the belief that behavior is lawful in all of its manifold dimensions of actions, feelings, thoughts and social processes. In short, the science and applications of psychology is the acting out of the belief that behavior is lawful.

From this perspective what should be the role of psychology in society? I believe that psychology, like the other sciences, emerged as societal efforts to better understand the lawful patterns underlying the natural world. The late emerging psychology it has been assigned systematic effort to understand human behavior. It is our mandate to systematically determine the laws of human behavior and to make these available. We join the other scientists, the physicists, the chemists, the geologists, the astronomers, the biologists, the physiologists, and the neuroscientists in their search for the underlying law of nature.

It follows from this that the primary role of psychologists is to attempt to discover the laws of human behavior and to teach of these principles. In short, I am suggesting an amplification of the George Miller proviso: the role of psychology is the discovery of the principles of human behavior and giving them away. The primary place of the psychologist should be in academic institutions, at the undergraduate and graduate levels, where these principles, derived by our science, should be taught, *i. e.*, given away, and in research laboratories in graduate schools, and institutional and applied laboratories where research is extended.

I would note that this is the current academic model of our older scientific predecessors such as physics and chemistry and biology. Indeed, this format differs little from the Arts and Sciences Psychology departments of most of the aspiring research universities of today. The tenured faculty of these departments is almost entirely comprised of research psychologists who are giving psychology away to both graduates and undergraduates. The graduates of these departments would be employed in academic departments or applied and institutional research laboratories.

But what of the applications of psychology? I am all for it. These are the societally useful application of psychological principles and the practitioners the specialists in such applications. These specialists would be taught in Colleges, Schools or Institutes of Psychology that were free standing or associated with Universities (similar to law schools). The faculties would be comprised of full time and adjunct professional psychologists from the various viable specialties clinical, counseling, organizational, human engineering, forensic, educational and school, and sports psychology. Some institutions would be narrowly focussed and other wide ranging. It is likely that they would use the PsyD degree.

The development of training milieus, internships, subdoctoral training levels, and issues associate with the levels and licensing of practice, reimbursement, prescriptions and other turf wars would be determined by these programs and their graduates and the research psychologists could return to concerns about authorship, review boards and animal welfare. The graduates of these programs would interpret and utilize the developing laws of human behavior in the wide range of applied settings as well as teaching the principles of human behavior in Colleges of Medicine, Law, Business, Education, and Engineering.

But it now it is time for me to close. It is clear that my picture of the ideal future of psychology has arrived where I began and I have gone back to halcyon days of my past. I have sometimes called these the BC days ... before computers (the calculator was a big advance for us), before the central nervous system (which in my day was called the black box), before clinical psychology (in our time known as abnormal psychology). The Departments of Psychology were devoted to academics and entering the field was a pathway to shabby gentility, probably in a four year college. The path to fame was research. Most of all, giants walked the lands dreaming theories of the nature of man—Hull, Tolman, Guthrie, Kohler, Kurt Lewin, and latter day saints like Kenneth Spence, Skinner, and a young George Miller.

I count my blessings of having lived in those times to be permitted me to wander in a wonderful world unhampered by GRE's and admission committees, tutored by wise ones, tempered by a war, riding a wave of job opportunities, and finding an unexploited research field which required few technical and mathematical skills.

I thank whatever Gods that be and you for having noticed.

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