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Cedarville, Illinois, is not and never was the hotbed of psychology. In the 1950s, no one had heard of a psychologist; if they had, they were not talking about it in this town of 500 people just below the Wisconsin border in rural northwestern Illinois. Platted by my great great grandfather in the early 1800s, the town's fate was sealed along with its worldview when it lost its bid for the railroad at the turn of the century. If you couldn't build it, plant it, plow it, milk it, assemble it at the local factory, or sell it, you must not be engaged in meaningful work. The idea of a career in the social sciences was beyond consideration. Some of the professions were understood - doctors, lawyers, veterinarians. But a psychologist? However, although the social sciences were unknown, there was a great deal of respect, understanding and admiration for social work among all who grew up in this small little village. The knowledge of social work resulted from the village's one claim to fame that was repeatedly presented in schools and at community events making sure all were aware of the life and works of its most famous resident, Nobel laureate, Jane Addams.

I spent from birth (March 16, 1943) to the time that I went to college in Cedarville, Illinois where I received a dose of the work ethic and a strong commitment to education. No one questioned the value of hard work, and everyone worked long hours, almost all of which in physical labor. Education was more an act of faith than an attained goal. Almost no one, including my parents, had attended college. Teachers in the grade school were dedicated, but not necessarily up to date. For example, my first, second and third grade teacher was the same woman who taught all three grades in the same room. She was a few years beyond mandatory retirement age in the larger neighboring school systems but was still allowed to teach in our school. In fact, she began her teaching as an itinerant teacher in a country district living with families in the district for four to five weeks at a time during the year, and she spent part of that year with my mother's parents the year my mother was born. She clearly knew little about the value of divergent thinking, but what she lacked in knowledge of the structure of the intellect, she made up with her beliefs about the value of fear as a motivator.

By the time that I finished grade school, the little school district was "swallowed" by the neighboring big city (population, 25,000) in a wave of school consolidations in the state of Illinois that eliminated most of the very small districts and forced higher accreditation standards on all of them. This provided exposure to college preparatory courses competitive with other high schools and the chance to meet and date the woman that I was later to marry.

I chose Iowa State University in Ames, Iowa, for my undergraduate and math as a major. To this day it is not entirely clear why I chose Iowa State. The most compelling reasons appear to be that I had two or three cousins who had gone there, one of whom was on its faculty, and I wanted to avoid flocking to the University of Illinois with the large number of others from my high school. Math as a major was chosen primarily because I enjoyed the classes in it and appeared to have some aptitude for it. Clearly it was not based on a careful consideration of career opportunities in the field.

By the end of the freshman year, I had a much more realistic view of mathematics as a major and was certain that neither my interests nor my aptitudes fit a career as a mathematician. By this time, I had also completed a number of courses that allowed for some evaluation of the types of things that interested me. The two that stood out were psychology and statistics. Two important discoveries, on my part, were that statistics played a very important role in the science of psychology and that the statistics department at the university was one of the best in the country. Therefore, I went to the department to seek advice about possibly changing majors. I was given an appointment with Leroy Wolins, whom I believe had a joint appointment in statistics and psychology. His advice was to change my major to psychology and keep mathematics and statistics as my two minors. I took it. He also offered me some part time work coding survey data on one of his research projects. The latter gave me a chance to work with some of the psychology graduate students.

At that time, the university had a number of undergraduate courses in counseling, personality and educational psychology but only limited offerings in other areas. As a result, by the end of my sophomore year, most of the courses in which I was most interested were taught primarily to graduate students. The two that I recall most vividly were psychometric theory taught by Bill Layton and Leroy Wolin's course on ability testing. Bill Layton began the first day with the Grandfather Formula and derived all anyone needed to know about classical test theory. He also provided me with a feel for construct validity from his own work at the University of Minnesota that, as a student, I never appreciated or fully understood until several years later when I found I had a framework on which to hang the complexities of construct validity but I never really realized it.

Leroy Wolins provided me with first hand knowledge of the difference between raw scores and standard scores. In a small class of six students, all the rest of whom were graduate students, I was feeling somewhat out of my realm from the first day of class. Upon completing the mid-term, I was certain that I was in over my head and had just ruined my chances of ever being accepted into graduate school at any institution. My worst fears were confirmed when the exams were handed back. I had received a two on the 50-point exam. Then came the good news. I was tied for second and only three points behind the class leader. Professor Wolins transformed the raw scores to standard scores and had no problem convincing me that I had earned a solid B and was very close to an A!

The class that I enjoyed most was industrial psychology taught by Art McKinney. Although I do not recall much of the detail from the course, I can recall feeling that it came closest to pulling together my primary interests. I also recall that one of the books that we used was McGehee and Thayer's training text. That course, along with some advice from Art, convinced me to apply to graduate programs in industrial psychology. Graduate School.

I applied to Iowa State University, Purdue University, and the University of Illinois for graduate study. The programs were extremely different. Iowa State's Ph.D. program had just recently been approved; at the time I applied, no one had completed their Ph.D. Purdue was a long established program in a department where the industrial psychology had dominated. Illinois' department was a highly respected one dominated by the experimental, social, and quantitative areas. The industrial psychology was part of the social area, and industrial students were tolerated because they tended to be good students with strong quantitative skills and because, if they had any applied interests, they were smart enough to keep them well hidden. I chose Illinois and have always been extremely pleased with the decision. The choice itself was based on the same rational decision process that led to the choice of an undergraduate institution. I would like to say that the choice was based on a careful consideration of the match between my own interests and the orientations of the school, but I know better. At that time, I was about to get engaged to my wife, Barbara. We had dated in high school, but she had gone to the University of Illinois. As an undergraduate she had received a fellowship/loan from the Department of Education of the State of Illinois which required that it be paid back after graduation either in dollars or by teaching two years in a public school system within the state of Illinois. In spite of the small amount of money on the one hand and the criticality of the choice on the other, the avoiding paying back the money by teaching in Illinois was the primary factor in our decision.

The University of Illinois in the mid to late 1960s was an exciting place. The department had a large number of very active researchers in a wide variety of areas outside industrial-organizational psychology whose works were influencing the course of psychology as a field. Some examples are: J. Wiggins (Personality), C. Osgood (Communications, Experimental), J. Mc V. Hunt (Developmental), H. Mower (Clinical), R. B. Cattell, L. G. Humphreys (Individual Differences), J. Adams (Experimental/Human Factors), J. Davis, F. E. Fiedler, M. Fishbein, J. McGrath, I. D. Steiner, H. T. Triandis (Social), M. Tatsuoko, L. Tucker (quantitative), and D. Dulany (History & Systems/Experimental). A proseminar class, required for all first year students, paraded these and many others by all of us along with mountains of readings that each felt was critical for our understanding of his or her work. The amount of work, the well known fact that each year a number of persons were dropped from the program due to their performance in the class, and the excitement and commitment of the presenters to their research kept our attention. In addition to the department itself, there was also the heightened arousal that went along with sole searching discussions of the Vietnam War, battles with local draft boards, a

central campus full of thousands of chanting students, and an occasional bomb going off at the Armory or some other strategic location.

An early experience at Illinois clearly taught the lesson that our data do not speak for themselves (specifically, if we desire to have an impact on policies and practices, it is necessary that we make an attempt to fit our recommendations into the norms and values of the organization). I had an assistantship in the Admissions and Records Office and spent most of my time doing regression analyses on predictors of student success, attrition, et cetera. Data on a number of freshman classes produced typical regression coefficients based on high school grades and standardized tests predicting freshman academic performance. These analyses justified the use of cut-off scores for admissions. However, the standard error of estimate was such that there were a sizable number of false positives for those above the cut-off. As a result, the research director for whom I worked, gave a presentation in Chicago to a group of high school counselors in which he suggested a selection system with two application deadlines. Those who completed their applications for the early deadline would be admitted if they met the cut-off criteria; for those meeting the second deadline, all who were above the cutoff would be put in a pool. Then, applicants in the pool would be randomly selected until school quotas were filled. He correctly pointed out that such a decision process would lead to decisions that were just as accurate for the group above the cut-off as first ordering them on their predicted scores and selecting from the top down. The headline on the city page of the Chicago Tribune the following day read something like, "Valedictorian of New Trier High (a suburban high school) faces Luck of the Draw for Admission at the U of I? No plan for change was abandoned more quickly than this one.

As I look back, I believe there were four very important experiences that had a profound impact on the rest of my career. These were: the Industrial and Organizational Psychology Program as represented initially by Chuck Hulin and later the addition of George Graen, the Group Effectiveness Laboratory, other graduate students, and other faculty.

The Industrial and Organizational Psychology program at Illinois was small and was different than most others in the country. Industrial and organizational psychology adheres to the scientist-practitioner model in which (1) both the science and the practice are relatively equally weighted and (2) the ideal model of research is one that tries to accomplish both scientific and practical goals simultaneously. I do not believe that was the Illinois model. Its model was primarily that of the scientist who did his or her work as a psychological scientist but chose subject matter with an eye toward its importance in organizational settings. The latter focus allowed for the possibility of practical implications, but these were never stressed, and there was no necessary assumption that the same data set, nor necessarily the same researcher, had to follow through to putting the science into practice. I never thought much about this distinction when I was there, but I have since then for I see the extent to which that model has influenced my own behavior as an industrial and

organizational psychologist. I also realize that the continued friendship and professional associations with Chuck and others, such as Jim Naylor, over the years have reinforced my commitment to such a model, for myself if not necessarily for all industrial and organizational psychology. I will speak more to the latter later.

For my second and third years in graduate school, I had the good fortune of getting an assistantship in Fred Fiedler's Group Effectiveness Research Laboratory. I look back at this as really the first point where I began to see research as an exciting exercise and as the foundation for a career. Fred had a way of securing support from a number of agencies for research on interesting issues and then attracting a large number of graduate students, post grads, and faculty to do research within the general boundaries of the research contracts and grants. We were physically located in houses near campus that had been converted to offices, and we had support that exceeded that available to many faculty. Fred also encouraged us to generate our own ideas and to fit them into projects that we would take over. Some other students in the lab when I was there were: Tony Biglan, Marty Chemers, Peter Dachler, John Hornick, Terry Mitchell, and Sam Shiflett. I learned much from working with them and have valued associations with many of them since that time. I have also felt that Fred Fiedler did a great deal for myself and many others by creating, dare I say, a culture that made it possible to get "turned on" to organizational psychology.

The third major influence on me in graduate school was the association with a number of other graduate students not all of whom were in industrial and organizational psychology. I have already mentioned a number at Fiedler's lab. There was also a group of us who ate lunch together in the basement cafeteria of the Y across from the psychology building - Peter Dachler, Dave Hamilton, Neal Kalt, and Emil Posovac. Among the industrial and organizational students with whom I overlapped, were Tom Tabor, Jeanne Brett, Milt Blood, and others. These provided a great deal of intellectual stimulation and a certain degree of motivation in terms of comparing oneself to them as students and throughout our careers after graduation.

The fourth major influence was the large amount of exposure we received to faculty outside of industrial and organizational psychology. This shaped my interest in topics that were not easily pigeon-holed into what was the typical content of industrial psychology in the late 1960s. Two experiences stand out. The first is the contact with social psychologists. Harry Triandis' attitude course provided a framework in which to think about job satisfaction. Ivan Steiner had a way of involving students in his most recent ideas with handouts he labeled 'talking to my typewriter.' Although I do not pretend to have created the insights that he later put together in his book on group effectiveness, on occasion I have talked to my wordprocessor, shared the ideas with a few, and learned a great deal about my own ideas from the experience. Joe McGrath and Jim Davis, who served on my masters or dissertation committees, again reinforced the social-organizational aspects of work. Finally, a research assistantship with Lloyd Humphreys provided a great

opportunity to learn from a person with a wealth of experience handling data sets that one could never get from textbooks.

With respect to content, my masters thesis and dissertation dealt with group effectiveness and attitudes/satisfaction, respectively. George Craen served as my dissertation adviser; Chuck Hulin was on the committee but was in Berkeley on sabbatical that year. The topics of my thesis and dissertation formed the basis for research I have done since then. The satisfaction work spread out into the more general concerns for work motivation. The group work lay dormant for some time with occasional looks at the topic. In the last year, these interests have surfaced again and are likely to dominate my concerns for the next few years. Thus, I have not strayed far from my roots.

Early Career: First Jobs

Like most other males of draft age in the late 1960s, early careers were influenced by coping with issues of military service. In my case, I had a two-year military service obligation that was delayed for graduate study. Throughout graduate school, I had thought that this would begin as soon as I had completed my degree. I learned near the end that I was to be called to active duty nearly a year later than the time I intended to complete my degree. However, the same day that I learned this, Stan Nealey announced his intent to leave the university for a position with Battelle, and I was offered his position as a one-year visiting faculty. This was in April of 1969. In my discussion of the job offer with the department head, Mort Weir, I learned, first hand, the value of money as a motivator. He offered me the position as an assistant professor at \$10,000 for the academic year if my dissertation were accepted and turned in to the graduate office by September 1st, or I could do the same tasks as an Instructor at \$7,000 if it were not completed by that date. At the time I was still gathering my data, my wife Barb had gone back to school to complete her masters so was not working, and she was expecting our daughter, Beth, who was born in June. We beat the September deadline by a day or two, but if it didn't have to deal with babies, computer runs or writing, it didn't happen from the meeting with Mort to the end of the summer.

Following the year at Illinois, the Army caught up with me. Barb, Beth and I packed up for a summer in Fort Knox, Kentucky, certain that the next 10 weeks would involve learning how to ride around in tanks but uncertain as to what the remainder of the two years had in store. The Kent State incident had occurred only two months before, and the war showed no signs of slowing down. We were not optimistic. However, we were fortunate. My orders came through sending me to the U.S. Military Academy to teach introductory psychology for the next two years. Beyond providing a safe haven to fulfill a military obligation, the experience provided two other benefits. It was an opportunity to step out of a career track with an excuse that made stepping back in relatively easy. As an outsider who was a participant in an organization not as an industrial and organizational psychologist but as an organizational member, I gained an understanding of organizations that I would not

have had if I had continued directly into an academic career. The second benefit was the good fortune of being assigned to the same unit as Neal Schmitt. Barb and I got to know well Neal and his wife, Kara, at that time and now have had the opportunity to continue that relationship here at Michigan State University.

When it was time to search for a "real" job, in the fall of 1971, the academic market was less favorable than it had been if I had been able to go onto the market when I completed my degree. However, I was extremely fortunate to have been offered a position in the Psychological Sciences Department at Purdue University. It had all one could want in a faculty position - supporting and stimulating faculty in addition to a constant stream of excellent graduate students.

Purdue University's industrial-organizational psychology program in the early 1970s was in transition. Joe Tiffin, Chuck Lawshe and Ernest McCormick had established a world-class program that served as the prototype of industrial psychology programs for over 20 years. It was a classical program where the focus was on traditional industrial psychology issues of selection and placement and job analysis and evaluation. The industrial program dominated the psychology department, and new classes of over 20 graduate students per year entered the program. By the time that I arrived, much of this was changing. My position was created by the retirement of Joe Tiffin, and Chuck Lawshe had moved to a vice-president's position in the university. Jim Naylor had been head of the department for five years and was rapidly building a research-oriented department in the traditional mold with a strong core of social, experimental, and quantitative psychology. Industrial and organizational psychology was a strong program but only one of several strong programs. It was limited to three faculty (Ernest McCormick, Robert Pritchard and myself), and the numbers of graduate students admitted each year was down to around five.

The transition was also apparent in the nature of what we considered an industrial and organizational psychology program. It represented a shift from one that was focused almost entirely on applied concerns in industrial psychology to a blend of both industrial and organizational as well as applied and theoretical concerns. The difficult task was not to let either force out the other. We felt that a balance between the science and the practice provided the best opportunity for training students who would be able to function successfully in either industry/government or academia. Ernie McCormick, Bob Pritchard, myself, and later Howard Weiss and Janet Barnes Farrell attempted to maintain that balance both with regard to our own research and among all faculty members. I might add that we have also tried to maintain the same tolerance for the mix in our program here at Michigan State University.

One of the most rewarding experiences at Purdue was the chance to work with extremely challenging graduate students who were so eager to get involved in research that I often wondered if I could find time for my own. This was particularly true the first few years after my arrival when Don Campbell, Angelo DeNisi, Cynthia Fisher, Don Fujii, Larry Peters, John Hollenbeck, Ben Shaw, Susan Taylor, and Jim

Terborg were all in the program at the same time. Most of them were not only working on either a masters thesis or dissertation, but they were also involved in independent research either with faculty or other students. The stimulation from them and others while at Purdue provided an excellent incentive to keep on top of a number of different areas in our field. While at Purdue, I had the opportunity to serve as chair or co-chair for dissertations for the following students from whom I gained a great deal both intellectually and interpersonally: Don Campbell, Ben Dilla, Mustafa Easa, Cynthia Fisher, Richie Flicker, Don Fujii, Charles Hobson, Jan Kaderabeck, Bill Matte, Larry Peters, Susan Taylor, and Jim Terborg.

My early research while at Purdue continued my interests in the effects of attitudes and beliefs on the behavior of people at work. My dissertation focused on the attitudes, and the one chance to conduct research that I was able to work in on the side while in the Army addressed the beliefs about job settings (realistic job previews) and their affects on turnover. The theoretical framework that seemed to fit my ideas best was that of expectancy theory, and fortunately the Army Research Institute for the Behavioral and Social Sciences responded favorably to several of my proposals. These grants allowed me to support a number of students and to investigate some of the research issues in both laboratory and field settings.

Three joint efforts with colleagues while at Purdue stand out. The first of these was writing the book with Jim Naylor and Bob Pritchard [Naylor, J. N., Pritchard, R. D., & Ilgen, D. R. (1980). *A theory of behavior in organizations*. New York: Academic Press]. We started out to revise the Blum and Naylor textbook in industrial psychology. However, as soon as we got into it, we tried to write and outline and began to ask so many questions about the nature of behavior at work, that we quickly abandoned the textbook for a task we felt was much more fun. For over two years we met on nearly a weekly basis filling a blackboard in Jim's office with notes and jumping up to grab either the chalk or the erasure to add or wipe out one another's latest thoughts. The result was a framework that was presented in the book and has guided my thinking and that of Bob's and Jim's since that time. The combination of people and ideas was an intellectual challenge that I am beginning to think was one of those once-in-a-lifetime experiences that few have the opportunity to experience; it was certainly an experience which I feel extremely fortunate to have had.

The second experience was a research project that stretched out over several years. It began in the late 1970s with Bob Pritchard, Del Nebeker, and myself. Later Howard Weiss joined us. The project involved a number of students and multiple research sites. In addition, we were able to manipulate variables in a field experiment that demonstrated quite clearly the motivational value of performance feedback, goals and incentives in ongoing organizations. But, more importantly for me, the work with multiple colleagues and students gave all of us a great deal of excellent experience dealing with a large-scale project over time.

Finally, I thoroughly appreciated the opportunity to get to know and work with Ernie McCormick. To say that we had very different views about industrial and organizational psychology is an understatement. However, from him I learned a great deal about the past history of the field and the nature and value of standard industrial psychological techniques. He had an excellent feel for the needs of operating human resource systems and the ways in which our methods could fit into these needs in ways that could make them function better. Add to that his warmth, support and caring about all the students with whom he had worked over the years and his concern for the personal well-being of others made it a real pleasure and honor to work with him.

Later Career: Michigan State University

By 1983, I was well settled into Purdue University and West Lafayette, Indiana. Unlike many of our colleagues who had relatively low tolerance for small midwestern university communities, we actually enjoyed them. My daughter, Beth, was in middle school playing basketball on the school team and my son, Mark, who was born while we were in West Lafayette (1974) was in grade school and enjoying whatever it is that grade school children do. Barb had completed her master's degree in the special education of the gifted while we were at the University of Illinois and had just begun working in a program for gifted education in the local schools initiated by John Feldheusen, a well known professor in gifted education. For myself, although Bob Pritchard had left for the University of Houston and Ernie McCormick had retired, Howard Weiss and I shared a common view of where the program should be, and we enjoyed working together. No one was sore surprised than Barb and I, when we found ourselves faced with the realization that we were indeed going to accept an offer of a position at Michigan State University.

In many respects, Michigan State University was very similar to Purdue. It was a large midwestern university in a small city with an emphasis on academic programs that meet the needs of business, industry, government and agriculture. More importantly, the industrial and organizational psychology program shared a perspective on the field that was similar to mine. Activities of science and practice in industrial and organizational psychology were both valued, and the faculty were engaged in the pursuit of both, although not necessarily in the same research project. There were also a number of industrial and organizational psychologists divided between the psychology department (Keven Ford, Steve Kozlowski, Neal Schmitt, Fred Wickert, and Mary Zalezny) and the department of management (Ken Wexley and later Georgia Chao, John Hollenbeck, and Alison Barber). The move had the added bonus of the chance to again join up with an old colleague and friends from our days in the Army, Neal and Kara Schmitt.

An additional challenge of the Michigan State University position was due to the fact that it was a joint appointment between psychology and management. Unlike most universities where psychology and business school faculty with similar interests tend to ignore the others' presence on campus. Michigan State University had a

history of encouraging interaction among faculty between the two settings. My position had been established to encourage this interaction. I continue to believe that such interaction is valuable for both programs of industrial and organizational psychology as well as organizational behavior programs in business schools. Although the effects of propinquity often dominate and lead to drifting apart, I feel that we do benefit from structural mechanisms that we try to maintain to foster interaction among our students and faculty.

Finally, since moving to Michigan State University, I have also become more involved in professional activities. One of these is primarily of a scholarly nature and the other is less focused as to content. The former is my work as associate editor of *Organizational Behavior and Human Decision Processes* (1984 to present) and the latter is with the Society of Industrial and Organizational Behavior (SIOP) and through it, the American Psychological Association (APA) and the American Psychological Society (APS). These experiences have been both rewarding and frustrating. The rewards first have come from working with authors and reviewers on journal articles in an attempt to get a piece of work to the point that we feel it will most likely realize its potential to impact on our scientific literature. Second, the work with colleagues in SIOP, in an attempt to provide a society that advances the needs of its members, has also been rewarding. Most frustrating has been the difficulties that industrial and organizational psychology has working with APA. Although I thoroughly appreciated the chance to be president of SIOP, I was always frustrated by the fact that so little of my efforts or those of the rest of the Executive Committee at that time could be devoted to the real needs of the Society because of the fact that we were so tied up with our relationship with APA and the subsequent establishment of APS.

Future Directions

I gave up years ago trying to predict where I was headed. Even as late as the first year of graduate school, I would never have anticipated a career in academics. However, my orientation has remained relatively constant, and, believing that past behavior is the best predictor of future behavior, I anticipate no major changes. With respect to my own research and writing. Although I define problems of interest in terms of their potential for addressing practice issues, I normally stop short of developing the practice myself. A case in point is my work on performance appraisal and feedback. Both performance appraisals and the way that people communicate feedback have components that are focused directly upon putting into practice appraisal and feedback systems. Some are interested in developing and distributing such systems to organizations. Although I do some of that, my primary interest was in conducting research that would provide information that would later be incorporated into such systems. Today I am just beginning work research on decision making teams with John Hollenbeck, a colleague of mine here at Michigan State University. Here again our focus is on understanding how decision making teams function rather than on putting some teamwork policies and programs into

practice. Like in the past, I suspect I will leave the latter to someone else hoping that what we learn will provide guidance for the practices that are developed.

Autobiography

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