

PSYCHOLOGY AT MICHIGAN: THE PILLSBURY YEARS, 1897-1947

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Psychology at the University of Michigan during the years, 1897 to 1947, did not make the kind of contribution to the field that might have been anticipated given the stature of the University and the personnel present. The department had adequate facilities, was carrying out active research, provided excellent instruction in science but failed in a significant way to communicate its activities to the field at large. The cause of this failure is examined in terms of careers and personalities of the department's two leaders, Walter B. Pillsbury and John F. Shepard.

The history of psychology at the University of Michigan can be divided into four periods. First, there was a philosophical period from 1852 to 1896 dominated by John Dewey and the early functionalists. A second period, the Walter B. Pillsbury era, extended fifty years beginning in 1897 and lasting until 1947. The post-World War II years of Donald G. Marquis's chairmanship, a twelve-year tenure (1947-1959) during which time the department became one of the nation's leading centers for psychology, constituted the third period. And, finally, there are the last twenty years since Marquis's departure which are too recent to characterize objectively.

This article shall describe the highlights of the Pillsbury era, 1897 to 1947. There are several reasons for this choice. First, the philosophical period of Dewey, James Tufts, and G. H. Mead has been previously presented,¹ and it is chronologically appropriate to describe the next phase of the department's development. More important, however, is the fact that psychology at Michigan during this critical period in the discipline's history did not make the kind of contribution to the national development of the field that might have been anticipated given the stature of the University, the people in the department, and the available facilities.

The years covered by the Pillsbury era saw important changes in American psychology. By the turn of the century, the field had gained a strong foothold in academia. Laboratories had been established in most of the major universities. The Michigan laboratory had itself been started in 1890, the eighth one in the United States.² By World War I, the discipline began promoting itself as a profession that aspired to reach outside of the university setting to contribute to American life.³ The postwar years found psychology publicly accepted and part of the social jargon of the day. In the twenties and thirties the discipline experienced the infusion of new ideas imported with the refugees from Hitler's political and religious persecutions.

One might have expected that the Michigan department, as part of a major American university, would have been a leading contributor to the continuing dialogue of those years. This, however, was not the case, and the department's productivity and recognition suffered as a result of its isolation. Lauren Wispé and James Ritter have presented data that allow comparison of Michigan's doctoral productivity to that of its peer departments during these years. During the period from 1898 to 1948 nearly 3000

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doctoral degrees in psychology were awarded in the United States. Michigan awarded 87 and ranked twelfth trailing such peer institutions as Columbia (341), Iowa (271), Chicago (198), Ohio State (169), Harvard (149), Minnesota (133), Clark (126), Yale (124), California (122), Cornell (106), and Pennsylvania (96).⁴

Perhaps more relevant to the question of departmental distinction is Wispe and Ritter's analysis by departments of professional recognition in the field. These authors operationalized the concept of professional recognition by using the number of Ph.D.'s from a given institution who gained membership in psychologically oriented organizations where election was considered an honor. A recognition index was calculated based on the actual number of doctorates from each institution achieving such recognition compared to an expected distribution for each school.⁵

The analyses show that in the years between 1900 and 1940 Michigan fell far behind Harvard, Johns Hopkins, Stanford, Cornell, Columbia, Yale, and Chicago in terms of the number of graduates who eventually became recognized psychologists. Further, the analyses by decades reveal that as more universities developed doctoral programs the Michigan department fell further behind the leaders. Clearly, then, Michigan was not a leading department during these years, nor a part of the history-making events of the period.

Yet psychology was being done well at Michigan. People were doing research, teaching, and learning in a totally committed manner. All the activity expected of a department of psychology within a major university was present. It had a well-equipped laboratory. It was headed by an internationally known psychologist who had served as the eighteenth president of the American Psychological Association. In these characteristics, the department was typical of the best of its peers. Yet the department was atypical in its intellectual isolation. Perhaps something may be added to our understanding of how scientific institutions function by taking a more clinical approach to a single, potentially influential department that was attempting to live out the history of that period with serious shortcomings.

Laurel Furumoto has provided a framework for evaluating scientific institutions based upon Robert Merton's characterization of the goal of science as an extension of certified knowledge.⁶ She assumed that the defining features of such institutions are: 1) the institution provides the necessary facilities for undertaking scientific activity; 2) original research is carried out and encouraged by the institution; 3) the results of this original research are published in journals; and 4) the institution provides instruction in science thus increasing the number of individuals with the necessary training to engage in such activity.

The Michigan department during the Pillsbury era scored high on three of these criteria. There were good facilities for scientific research, there was much original research being done, and solid instruction in the science was provided to draw students into the field. The problem was that there was a great failure to communicate effectively the department's activities to the field and to be influenced in turn by what was going on outside the department. The rest of this article shall attempt to describe how this situation came about.

First, some general facts about the department during the period from 1897 to 1945 are in order. It grew slowly from the single presence of Walter B. Pillsbury, never numbering more than ten full-time staff. It lived under the auspices of the Department of Philosophy until 1927. A laboratory building was obtained as early as 1903, and strictly experimental bias remained the rule of the department during the entire fifty years.

Seventy-three doctorates were awarded during the Pillsbury era. The list of Ph.D.'s includes such people as John F. Shepard, Ernest S. Skaggs, Norman Cameron, Norman Maier, Theodore Schneirla, Margaret Wylie, Ella Hanawalt, Lloyd Woodburne, Wilma Donahue, Margaret Ives, Robert Kleemier, Irwin Berg, and Seymour Wapner.⁷ In addition, the following noted psychologists attended Michigan earning lesser degrees than the doctorate: Herbert Woodrow (A.B. '04), Clark L. Hull (A.B. '13), Howard Liddell (A.B. '18), Leon A. Pennington (A.M. '32), Robert L. French (A.M. '38), and M. Ray Denny (A.M. '43).

The best insight into the actual activity and orientation that characterized the department can be gained from the breakdown of the dissertation topics themselves. Over forty-one percent fell in the general area of learning (human, motor, animal), reflecting the functional and behavioristic influences which were becoming the dominant trend in American psychology.

These facts, however, only present the context for the more human dynamics that characterized psychology at Michigan. At the center of the social scene were the two senior men, Walter B. Pillsbury and John F. Shepard. The contrast in personalities between Pillsbury and Shepard, the dominance of Shepard's research and systematics as well as his failure to publish, and the resultant provincialism of the department that ultimately diminished its effectiveness tell Michigan's real history.

THE CONTRAST BETWEEN PILLSBURY AND SHEPARD

When Walter Pillsbury (1872-1960) died, older psychologists were surprised to learn that younger men on their staffs had never heard of him, for in the early days of American psychology he was numbered among the great. He received part of his undergraduate training at the University of Nebraska under H. K. Wolfe, one of the first Americans to take a degree with Wilhelm Wundt. One year after E. B. Titchener arrived at Cornell, Pillsbury became his second graduate student. At Cornell Pillsbury collaborated with Titchener on a translation of several German texts, served as an assistant in the laboratory and classroom, and completed several minor studies as well as his dissertation. His early publications contributed greatly to his reputation as a scholar. In 1910 he was elected president of the American Psychological Association, and fifteen years later he was honored by election to the National Academy of Sciences. As early as 1897, therefore, Pillsbury had a reputation as a rising young scholar. Several offers of positions came his way. He chose Michigan and it proved to be a lifetime assignment.

Pillsbury was a rather reserved individual who held himself aloof from both colleagues and students. Throughout his long career at Michigan, Pillsbury remained a remote, unassertive, gentle person who exhibited the height of dignity. Yet his reticence and remoteness coupled with his position as a leading scientist and head of a major department of psychology created an ambiguity about his person that had the effect of stifling any positive influence he might have had on students. Pillsbury identified with the autocratic role of the "head professor" characteristic of the European academies. He expected his decisions to be accepted without discussion, and for the most part they were. But his remoteness prevented him from establishing the kind of relationship that would allow his decisions to appear reasonable rather than arbitrary. His smiling aloofness provided an armor which prevented any kind of argument.

Indeed, the image many generations of Michigan students carried away was that of a distinguished man sitting in his office hour after hour composing at his typewriter, for Pillsbury was a prolific writer. His bibliography contains sixty-nine articles and eleven

books. And yet his writing was not particularly inspired. When he began a text, he would examine the already successful books in the field, list the topics covered, and average the total pages assigned to each topic. Taking these facts to be the "geography" to be covered he would then write to meet these specifications. It often seemed that as soon as he finished the last page he would send the manuscript to the publisher with a minimum of revision.

This same imprecision marked his social relationships with his peers. John B. Watson, in his classic paper inaugurating behaviorism, chastized the psychologists of that day for a too narrow definition of their field: "I shall always remember," he wrote, "the remark one distinguished psychologist made as he looked over the color apparatus designed for testing the responses of animals to monochromatic light in the attic at Johns Hopkins. It was this: And they call this psychology."⁸ Pillsbury was this "distinguished psychologist," and he was very disturbed to read what Watson interpreted his remark to mean. He had meant to show his own enthusiasm for and appreciation of the work and had actually said: "And this is psychology," but even the "Prince of Behaviorism," as he called Watson, had difficulty fathoming the real Pillsbury.⁹

Pillsbury's major contribution to the education of the graduate students was via his history of psychology course. It was considered an interesting class, as well it should have been, for he had been present during much of early American psychology. He was not a good lecturer but he knew his subject matter well. It was in this course that Pillsbury's systematic position came closest to being expressed. He appears to have held to a kind of functionalism that had evolved from structuralism. Pillsbury appreciated behavioral consequences but could not abandon the concern for consciousness that characterized his structuralistic training under Titchener. This "functionalism-come-lately" was not easy to pinpoint. To most of his audience Pillsbury appeared to be eclectic and almost ant systematic. He described himself as follows:

. . . I presume I am one of the men who should be regarded as belonging to no actual school. . . . As a matter of fact I have long believed that a general theory has no justification except as a convenient setting for facts. From its very nature, a school must be one-sided. Its statement is either a protest against an existing school or a rallying cry for a bit of propaganda. Only within limits is either useful. I have attempted to formulate a general position on several occasions but have never pushed it very hard. . . .¹⁰

Such a statement made today might seem proper. Contemporary psychology has moved beyond the search for sovereign theories. But we are concerned here with the first few decades of American psychology when such was not the case. A sovereign system represented the crystallization of one's acquired insights about and future hopes for psychology as a science. Grand theories were the vogue and had great academic and personal effects on budding as well as established psychologists. Students desired such theories and were drawn to men who offered them. But Pillsbury did not see it as his function to fill that need, and the students drifted away from him.

There was another factor that prevented Pillsbury from having significant interaction with the students. The Michigan psychological tradition had remained that of an experimentally oriented department, leaning heavily toward laboratory research. Pillsbury, however, was very little involved in research after 1912. The truth of the matter was that he was not a good laboratory worker. He appeared to be well aware of his inadequacy and allowed others to take over the actual running of the laboratory.

Pillsbury never relinquished the title of "Director of the Laboratory." However, his

shyness and lack of theoretical commitment as well as his avoidance of the laboratory estranged him from the students. Even though he was considered outside the department to be its most important psychologist, he offered very little to those within it. Therefore it was natural for the students to turn elsewhere in order to fill the intellectual needs that their commitment to psychology aroused. The one person who responded most effectively to them was John F. Shepard (1881-1965) who early became the main "teacher and influence" in the department.

Shepard began his graduate study in psychology at the University of Chicago in the fall of 1902. Toward the end of the first year, he heard that Michigan was looking for a graduate student who would assist Pillsbury. Shepard was accepted, and he transferred to Ann Arbor in the fall of 1903 where he remained the rest of his life.

In 1906 Shepard became Michigan's first Ph.D. in psychology and was appointed Pillsbury's junior colleague. For a half dozen years these two men made up the entire psychology staff. They differed especially in the very areas of personality that prevented students from being drawn to the senior professor. Shepard was very willing to spend time with students and encouraged a degree of intimacy. He shared with them his opinions, knowledge, and anecdotes on many topics.

It was as a teacher, however, that Shepard had his greatest effect.¹¹ Theodore Schneirla and Norman R. F. Maier, leaders in the fields of comparative and learning psychology, often acknowledged their intellectual debt to him. Students found Shepard to be an extremely systematic, original, and critical-minded teacher. More than one former student expressed the opinion that if Shepard had published the material he presented in courses, he would have founded a "school" of psychology. Shepard taught well-organized courses with a great deal of confidence in what he said. He knew the literature so well that students stood in awe of his grasp of it. They soon came to believe that what Shepard said about maze learning, reasoning, perception, and so on was correct and what others said was wrong. Shepard would pick out the many neglected controls in the experiments that dominated the literature and convince his listeners that he was one experimenter who knew what precautions to take. For Shepard was very much at home in the laboratory and accumulated vast amounts of data from rat runs in his various mazes.

Shepard, then, was a dominant, driving, intelligent person who was interested in research and in communicating to the students what for him were very valid theories of learning and perception. His traits were the kind, however, which do not universally lead to a band of devoted disciples. They often caused reactions in some people which were less than positive. Some of his colleagues did not find it easy to work with him. To some he appeared as a dogmatic, stubborn person who had difficulty admitting that anyone other than himself could conceivably know anything about psychology.

His strong points, curiously enough, often had the effect on his students of stifling creativity and productivity. Shepard appeared as such a severe and cogent critic that his students seemed to hesitate doing anything on their own for fear of receiving in turn the unsparing criticism he directed toward the work of others. And then again, he worked so hard and so long in his laboratory and accumulated huge amounts of data which were never published. Some of his students had visions of themselves working just as hard and getting no further than he did.

The tragedy of the man was that he did not publish. Shepard always placed the blame for this failure on his heavy involvement in a campus building program after World War I. There were, however, twenty-five years between the end of that involve-

ment and his retirement, and still the publications did not come. Instead he and his assistants continued to collect data. There was always something else to try, some other variable to control.

Individuals' reasons for not publishing are always complex. For some, publishing is too public an exposure to be endured. This was probably not Shepard's problem. It may have been, simply, that his teaching actually became a report of his research. If he had published, there would have been nothing new to present to his classes. Shepard did use this material with great effect. The students learned a great deal by going through with him the successive research steps. It generated much enthusiasm and created a group of "student-disciples." However, it was not the way to develop a national reputation.

Wherever Shepard's students went they would talk about him and his work and what it would mean to psychological theorizing when it was published. It was always "work that was about to appear." In the early twenties one of his students went to Stanford University for a semester's work. He took along the "Shepard point of view," the truth of which he had been convinced. He was shocked to learn that the Stanford psychologists were not certain who Shepard was.

If Shepard's failure to publish caused disappointment and embarrassment to his students, it must be said that it was profoundly more tragic for the man himself. When Shepard retired in 1951 the task of writing up his life of research became almost an obsession with him. It was constantly on his mind and was introjected into almost every conversation he had with former colleagues and students.

In 1959 Shepard completed a monograph entitled "An Unexpected Cue in Maze Learning" which he considered to be the only part of his main study that was detachable. He submitted the manuscript to the *Psychological Monographs* but the editor turned it down because he believed that Shepard's contribution on floor cues had been known for a long time, making the monograph anticlimactic. Shepard had the work lithographed at his own expense.

Shepard was contracted by a Berlin firm to write a chapter summarizing the research on maze learning for a tentative handbook of zoology. He accepted the assignment because such a review fit well as background for his own work. Shepard worked over a year on the chapter and submitted a thirty-seven-page paper. Some misunderstanding appeared to develop at this point and Shepard withdrew his chapter. It was never published.

As the years began to catch up with him, Shepard seemed to sense his own professional tragedy. In 1960 he wrote to E. G. Boring that his "only real source of anxiety now is the realization that much of my life would be lost if I don't get my maze results published."¹² In 1963 he had a slight stroke which affected his speech. A year later he entered a nursing home. Shepard died on 2 November 1965 at the age of eighty-four. His last research writings were gathered and examined by former students. It was regretfully decided that there was nothing which might be salvaged for publication.

No biographical sketch of Shepard would be complete without some mention of his political and social philosophy, for he put forth these views with the same determination and confidence that characterized his approach to psychology. The most conservative way to describe Shepard's social-political philosophy is to say it was slightly to the left of socialism. He was a great admirer of Norman Thomas and for many years had been a strong supporter of the Soviet Union. Shepard influenced many of his graduate students during the twenties and thirties by his discussion and advocacy of the Russian social experiment.

This writer had many talks with Shepard after he retired. Often these conversations were on political topics. Shepard would say that though his vocation was psychology, his avocation was American history. He believed whole-heartedly in the principles of freedom, liberty, and equality upon which this country was founded. But the economic system which created the opportunity for these values to be experienced at the nation's inception, he believed, were no longer appropriate today. In the days of the open frontier, the free enterprise system fostered the pursuit of liberty and freedom. But the frontier had closed. Since freedom and liberty depend upon equal opportunity, steps must be taken to ensure that this condition exists. Shepard felt that in order to keep our country true to the values upon which it was founded, the society must be altered toward a socialistic state. Only socialism could assure the realization of the American dream.

Shepard held this position most tenaciously and continued to support all movements and events that were consistent with it regardless of the circumstances. When the Russian government, for example, signed the nonaggression pact with Germany in 1939 many of the young liberals in the department became quite disillusioned with the Soviet Union; but Shepard defended Russia's action as a necessary political expedient.

In 1942 Shepard was president of the Civil Rights Federation of Detroit which distributed a pamphlet entitled "Smash Detroit's Fifth Column." The document was a detailed attack on rightist organizations and leaders operating in Michigan like the Ku Klux Klan, National Workers League, the Silver Shirts, Father Coughlin, and Gerald L. K. Smith. Smith was so disturbed by the pamphlet that he telephoned and wrote to the president at the University to complain about Shepard.

Shepard did not talk politics around the department to any large extent except for occasional discussions with his graduate students. Pillsbury, who was politically conservative, did not appear to be concerned about his colleague's views. Shepard did use his well-attended one-credit course in the psychology of religion as a platform for his socialistic philosophy. When this writer attended that course in the late forties, he heard little of religion per se and much of the inevitability of the socialistic revolution that was coming after the "phoney revolution" that was fascism had passed. Shepard also ran for mayor of Ann Arbor in 1948 on Henry Wallace's Progressive Party ticket.

Shepard had already retired when the McCarthy-era of Communist "witch-hunting" reached Michigan. In the spring of 1954, a Michigan member of the House Subcommittee on Un-American Activities decided to hold hearings in Michigan. The University was notified that three faculty members would be called before the subcommittee and questioned about their Communist associations. It was also announced to the press that the subcommittee had anticipated calling a fourth faculty member but had learned that this person had retired and was no longer in a position to influence students. The reference was obviously to Shepard. When Shepard was asked about the reference to him, he expressed in rather strong language his wish to have been called to the hearing in order to state in no uncertain terms his feelings about the Un-American Activities Committee.

THE PSYCHOLOGY OF MICHIGAN

This then was the situation that characterized the department during the Pillsbury era. From the outside it appeared to be dominated by Pillsbury. But inside the department he was overshadowed by Shepard, a forceful, dogmatic person, much involved in research and system-building but almost completely unknown elsewhere.

The effect was that the department, though intellectually active, became curiously

cut off from the mainstream of psychology. It also became severely inbred. Of the twenty-six people appointed full-time instructors during Pillsbury's tenure as chairman, only six were not Michigan trained. Only one of these six reached a tenured rank. Four remained less than five years, and one was supported entirely by outside funds. Inbreeding, of course, is in itself not a negative factor, but it does tend to perpetuate and eventually make dominant the less desirable features of an organization. To some extent this was true of the psychology at Michigan.

There was a great deal going on within the department but it was not representative of what was happening across the nation. The staff during the twenties and thirties continued to consider itself to be an experimentally oriented department and sought to establish itself within the natural sciences. It wanted no part of applied, social, and clinical psychology and kept what little that was done in those areas in the periphery of departmental concerns. Pillsbury and Shepard did not say this in so many words, but it was their attitude, and the junior staff and graduate students took it in with the atmosphere.

Departmental discussions had mainly to do with the conflict between the Titchenerian psychology and behaviorism. Most of the staff was favorably impressed with behaviorism's critique of introspection. But behaviorism's influence was primarily in its critique of the older systems. Its positive program did not appear to be accepted by anyone within the department.

Gestalt psychology, however, was received more favorably. And the early Gestaltists were also interested in what was happening at Michigan. In 1913, Shepard coauthored with H. M. Fogelsonger an article entitled "Studies in Association and Inhibition."¹³ This study was of special interest to the Gestaltists because it emphasized the same kind of stimulus-patterning effect that they were observing in Germany. Wolfgang Köhler, in his *Gestalt Psychology*, described Shepard and Fogelsonger's research in some detail interpreting it as demonstrating the influence of organization upon the recall process, a basic point in Gestalt psychology.¹⁴ So when Köhler visited the United States in 1925, he came to Michigan primarily to meet Shepard.

Shepard's general theory appears to have been an extrapolation from implications of this early experiment. He viewed learning as an acquisition of responses to a patterning of stimuli. To this extent, his views fit in well with what the Gestaltists were saying. Shepard, in turn, was enthusiastic about this new system when he first began to hear about it in the mid-twenties. It must be remembered, however, that in those years not very much was known about Gestalt psychology. To be enthusiastic about what the system might be saying, therefore, was not the same thing as identifying oneself with it. As a matter of fact, Shepard never called himself a Gestaltist and in later years appeared to have serious doubts about it. What seemed to trouble him were its ancillary principles which stressed the innateness of organization, isomorphism, and so forth. Shepard placed more stress on the role of experience in the development of organization.

A better-known example of Shepard's theory of stimulus patterning may be seen in Clark Hull's concept of afferent neural interaction. Hull's reinforcement theory was often criticized for its neglect of the stimulus complexities involved in behavior. These criticisms were most often made by Gestaltists. Hull's reply was to postulate a process whereby any incoming stimulus interacts with all stimulation active "inside" the organism at the time the stimulus is presented as well as all other stimuli that are on a stimulus generalization continuum with the incoming stimulus.

It is of some significance that when Hull presented this concept in his 1943 book,

Principles of Behavior, he cited the Shepard and Fogelsonger results as empirical support.¹⁵ Hull had been one of Shepard's undergraduate students at Michigan from 1914 to 1916 and had carried out a small experimental research project involving learning under Shepard's direction.¹⁶ Hull was certain to have been familiar with Shepard's views on stimulus patterning. It is this writer's belief that if Hull had developed further the implications of afferent neural interaction, he would have been presenting a theory of perception that would have been very close to Shepard's theory of stimulus patterning.

The fact that Hull's Gestalt critics failed to be mollified by the implications of the concept of afferent neural interaction indirectly reflects the differences that existed between Shepard's and the Gestalt view of perception and the role of learning in behavior. Shepard's views as expressed in his courses did come close to the Gestalt position on many topics so that his students were prepared for, or at least inclined by their Michigan experience toward, what the Gestaltists were saying. He encouraged several of his students (Norman Maier, Lloyd Woodburne, for example) to go to Berlin to learn firsthand the new Gestalt views.

This attitude toward Gestalt psychology illustrates what was perhaps a more profound characteristic of the department. There was a strong feeling of confidence in what was represented in the department. This confidence took the form of the belief that the staff adequately covered what should be included in a psychology program and that anything omitted was not of any major importance. By 1930 the staff had grown to ten and the generally held view was that together they covered the field and that there was nothing to be added. This attitude showed up quite clearly when Heinz Werner (1890-1964) was unexpectedly added to the staff for a three-year period.

Werner had been a professor at the University of Hamburg and had been forced to emigrate when the Nazis came to power. An organization had been formed in this country to secure positions for qualified refugee scholars in various American institutions. This committee attempted to place scholars by providing several years' salary in hopes that the institutions who accepted them on this basis would then make them permanent after they had proven themselves. Werner was placed at Michigan in 1933.

Werner offered a series of courses in Gestalt psychology. The staff appeared to like Werner and were unanimous in regarding his work as distinguished. He was an interesting person whose teaching elaborated in depth a point of view which was generally supportive of the department's theoretical leanings. There was good reason, therefore, to expect that he would have been invited to remain in Ann Arbor when his three years of outside support were terminated. This did not happen, however.

When the question was put before the department, the response was that he was not their first choice for any vacancy that was available. It was felt that the department adequately covered what was important. Since it was staffed primarily by Michigan-trained people there was little sympathy for other national trends, much less foreign ones. In the fall of 1936 Werner left and ultimately received a permanent position at Clark University where he had a distinguished career. The Michigan department continued its isolated, inner-directed, self-confident course.

One of the reasons for the strong feeling of self-confidence within the department was the fact that there was a good deal going on. As indicated earlier, there were seventy-three dissertations completed during the forty-five years of Pillsbury's chairmanship. The subjects of these studies were primarily in the area of animal and human learning which was consistent with national trends in psychology.

It is difficult to determine with any exactness under whom the doctoral students ac-

tually did their work. Pillsbury, as chairman of the department, insisted upon his right to be officially named the chairman of every doctoral committee regardless of under whose direction the students were actually working. For some of Shepard's students, joint chairmanships were arranged, but whenever a junior staff member was involved, Pillsbury assumed the sole chairmanship.

It appears, however, that Pillsbury and Shepard shared equally in the direction of the dissertations. Each man can be credited with the direction of twenty-three theses. The topics undertaken by Pillsbury's students were varied. They involved imagery, logical memory, threshold determination, temperament, attention, work, fasting, and abnormal behavior. All were studies using human subjects. Shepard's students, on the other hand, dealt strictly with learning problems. The studies were approached comparatively using a range of subjects which included ants and rats as well as humans. Several of his students employed physiological techniques such as cortical destruction as main experimental variables.

The contrast between the thesis topics directed by the two senior men clearly reflects their essential difference in approach to psychology. Pillsbury was no systematist. His approach was eclectic and ranged over a wide array of topics. Shepard, however, was basically a systematist, and he narrowed his interest to a definite problem area and methodology that would allow his analytical abilities to develop a comprehensive body of fact and theory. It was no surprise, therefore, to find that it was to Shepard that the students turned in their search for a coherent approach to the science of psychology. But Shepard's domination of the intellectual life of the department had its drawbacks. And as the 1930s drew to a close, the time had come for important changes to occur within the department.

THE END OF THE PILLSBURY ERA

Pillsbury celebrated his seventieth birthday on 21 July 1942 and reached the age of mandatory retirement. It soon became apparent that the University was going to select a new chairman from outside the department. This decision came as a surprise to most of the staff. It was generally believed that Shepard would succeed Pillsbury. He was the senior professor and for years had been the driving intellectual force that defined the Michigan tradition. But there was a vague uneasiness about the department that was felt on occasion, even by its members. In the awareness of the University administration, its causes were easy to discern, and they were determined to use the occasion of Pillsbury's retirement to do something about it.

First, as indicated earlier, the department was highly inbred with Michigan-trained staff and this had the effect of isolating the department from new ideas and orientations that were current at other schools.

Second, there was no one on the staff with the exception of Norman R. F. Maier who clearly had a national reputation. The ironic fact was that the department did not have the reputation it deserved. The staff was composed of superior teachers who had the respect of their students. There was much research activity but with the exception of Maier's work very little of it was published.

Third, the department was not keeping up with what was happening on the national scene. Its experimental tradition had placed it squarely among the natural sciences. The applied and clinical interests that were aroused within the department were, to say the

least, not warmly encouraged. Michigan, continuing to draw its sustenance from its own trainees, had become insensitive to newer emphases in the field of psychology.

Finally, the University had changed its view of departmental chairmen. The older notion of a chairman as "head professor" more gifted in research than administration was abandoned. What was desired was a chairman who could function well in the search for staff and the expansion of the academic program and who had the willingness to perform the routine duties of administration. Given the context of this definition of the ideal chairman and the ills of the department as viewed with reference to the national scene it was understandable that a successor to Pillsbury would be sought from the outside. The department had need, it was decided, for rejuvenation and a new direction.

Because of the war conditions the appointment of a chairman was delayed for the duration. In the spring of 1945, the position was offered to Donald G. Marquis, then chairman of the Department of Psychology at Yale University. He accepted and in September 1945 began a twelve-year tenure as chairman that brought the department's reputation to the point where it was rated one of the top three in the nation, a position it has continued to maintain. The details of how this change was accomplished must await another occasion. But Marquis's general approach is important because it does contrast so greatly with what went on before him.

Marquis recognized psychological activities wherever they were found in the University. Joint appointments were set up with the School of Education, the Psychological Clinic, and the Counseling Bureau, as well as other departments. In addition, self-financing institutes (for example, Survey Research Center, Institute for Group Dynamics, Vision Research Laboratory) were invited to Ann Arbor to form an association with the department.

This "open-door" policy toward joint appointments was not a mere courtesy. These staff members were encouraged to become a part of the department and to participate as fully as they desired in its activities. They taught courses, chaired and served on doctoral committees, and helped organize and implement interdisciplinary programs of instruction and research—all at no cost to the department. In the first five years of Marquis's chairmanship the total staff increased from eight to forty members. Some of this growth was normal, a result of the need to handle the postwar student increase. But the growth experienced by the department was greater than could be expected from this fact alone. To be specific, in comparison with the last prewar year, by 1950 the University population had increased 72%, the number of graduate students in psychology, 200%, and the department staff size, 400%.

Marquis had quickly found a way to break the conservatism that had characterized the department for so long. The conservatism had been based on personalities, a high degree of inbreeding, and a failure to relate what was being done to the profession at large. The irony, of course, is the fact that Michigan during the Pillsbury years was an exciting place to be. Much was going on and students were being drawn to the field. But as historians of science have indicated, the "paradigm" tends by its very nature to be conservative whether one takes that term to mean science in its fullest "Kuhnian" sense, or in a more narrow meaning of a department of only eight persons. Even when an organization tries very hard not to "close itself off," the conservatism usually wins out. When an organization, instead, encourages isolationism by its very posture, it is doomed to intellectual sterility unless it can "generate its own revolution" or be rescued by one that comes from the outside—as was the case of Michigan of the Pillsbury Years.

NOTES

1. Alfred C. Raphelson, "The Pre-Chicago Association of the Early Functionalists," *Journal of the History of the Behavioral Sciences* 9 (1973): 112-122.
2. C. R. Garvey, "List of American Psychological Laboratories," *Psychological Bulletin* 26 (1929): 652-660.
3. Thomas M. Camfield, "Psychologists at War: The History of American Psychology and the First World War" (Ph.D. diss., University of Texas, 1969 [University microfilms, 1970, No. 70-10766]). See chapters 1, 2.
4. Lauren G. Wispé and James H. Ritter, "Where America's Recognized Psychologists Received Their Doctorates," *American Psychologist* 20 (1965): 634-644.
5. *Ibid.*, pp. 634-641. The recognition index was based on the number of Ph.D.'s from each institution who held positions in "honored" organizations, taking into account the number of psychologists eligible for these positions during these years and the total number of doctorates granted in psychology by all qualified American universities during the key periods.
6. Laurel Furumoto, "The College Laboratory: Promoting the Scholarly and Scientific Idea" (Paper presented at the annual meeting of Cheiron: The International Society for the History of the Behavioral and Social Sciences held in Ottawa, Ontario, Canada, 5-8 June 1975).
7. The seventy-three doctorates described represents the number actually completed during the Pillsbury era. The eighty-seven doctorates reported by Wispé and Ritter in "Where America's Recognized Psychologists Received Their Doctorates," include some degrees earned during the years that followed Pillsbury's retirement.
8. John B. Watson, "Psychology as the Behaviorist Views It," *Psychological Review* 20 (1913): 163.
9. Walter B. Pillsbury, "Autobiographical Sketch" in *A History of Psychology in Autobiography*, ed. Carl Murchinson, 7 vols. (Worcester, Massachusetts: Clark University Press, 1932), 2:287. During a recent examination of new material added to the Walter B. Pillsbury Papers in the Michigan Historical Collection, Bentley Historical Library, University of Michigan, the following letter was found which appears to pertain to this incident:

August 8, 1919

My dear Pillsbury,

Your letter of July 30th interests me very much. It sounds like ancient history to go back to that article which was, it must be admitted, somewhat of an extravaganza.

Judging by Freudian standards, you have more or less sympathies for the gentleman who made the remark. However that may be, I may say that you were not the psychologist who made the remark. Don't mention it, but Dodge was the gentleman.

Nevertheless, let me thank you for your letter and I may say that even if you had made the remark, it would not have influenced my friendship for you in the least, or my high regard for your technical and psychological attainments.

Sincerely yours,
John B. Watson
Major, A.S., M.A.

Evidently Pillsbury wrote Watson in 1919 in order to correct what he thought was Watson's confusion in the 1913 article and Watson identified the referrant as Raymond Dodge and not Pillsbury at all. Why Pillsbury persisted in relating the incident when he wrote his autobiographical sketch in 1932 is not clear.

10. *Ibid.*, p. 293.
11. In his advanced systematic psychology course Shepard requested that graduate students prepare a digest of his lectures. The lecture notes for 1939-1940, prepared by Seymour Wapner, have been deposited at the Archives of the History of American Psychology. See "Lecture Notes from a Course in Systematic Psychology," 2 vols., Wapner Papers, Archives of the History of American Psychology, University of Akron, Akron, Ohio.
12. Shepard to Boring, 3 September 1960, John F. Shepard Papers, Michigan Historical Collections, Ann Arbor, Michigan.
13. John F. Shepard and H. M. Fogelsonger, "Studies in Association and Inhibition," *Psychological Review* 20 (1913): 290-311.
14. Wolfgang Köhler, *Gestalt Psychology* (New York: Liveright, 1929), pp. 315-316.
15. Clark L. Hull, *Principles of Behavior* (New York, Appleton-Century-Crofts, 1943), p. 219.
16. Clark L. Hull, "Autobiographical Sketch" in *A History of Psychology in Autobiography*, ed. E. G. Boring et al., 7 vols. (Worcester, Massachusetts: Clark University Press, 1952), 4:146.