which ultimately are deducible from behavior," instead of being as the "mentalist" assumes, "essentially inner happenings primarily available to introspection only." A broadly "behavioristic" attitude has spread widely among experimental psychologists during recent years. But the tenets of the school are far from being accepted in such an extreme sense as its founders desired. "Conditioning" in the laboratory proves to be definitely different from "association" in every-day life. There is a growing recognition, too, that if the "behaviorist's" observations are to be confined exclusively to animals and infants, experimental conditions must often be artificial and unnatural; while the urges, drives and tensions studied must relate largely to sex and food, to the exclusion of the higher moral and artistic needs and creative activities of man.

Allied to this school is that of *operationism,* recently welcomed from the side of physical science, according to which a concept can only be defined in terms of some objective technique, *e.g.,* by the corresponding set of "operations" that have been designed to assess it. For many years psychologists engaged in mental testing have had to be content with defining "intelligence" "operationally"—as being what is measured by intelligence tests. Adherents of this school have attempted to give similar operational definitions to other mental terms, thus, in *quasi*-behavioristic fashion, hoping to establish a psychology which will give an objective rendering of all subjective terminology. It is possible, but, as I have urged, it is insufficient, to regard psychology as a science in which the "private," personal, nature of mental experience is transformed into arrays of symbols which have been derived from "publicly" observable events, *i.e.,* behavior.

(To be concluded)

IS THIS SUCCESS?

By the late Dr. ROYAL N. CHAPMAN[1]

TO-DAY I shall be alone. So far as I know there is no one on the boat who would recognize me. Tomorrow the passenger list will be published, and then there will be introductions and interviews. It has come to the point where I find seclusion only on an airplane where the roar of the motors precludes conversation, on a train or on a day like this on a boat. It is a far cry from a youthful ambition for the life of a naturalist emulating Thoreau and Burroughs to a strenuous program of consultations and the direction of research.

It required a great mental adjustment to pass from a self-supporting student interested in the development of socialism to the direction of a research institution on which a great, highly capitalistic industry depends. It has meant the transition from the problem of choosing each meal according to the money in the pocket to the problems in which millions are won and lost. More than all else it has involved ideals, the realization of which I once thought to be the object of my life.

A former college mate with whom I shared the struggle for advanced degrees in a well-known graduate school recently reminded me of one of our idealistic discussions, in the course of which I had expressed myself as to a salary which would satisfy all my financial ambitions. He called my attention to the fact that my present salary is ten times the maximum that was specified in those days of the graduate grind. He asked what it was all about. Had I forgotten that we had pledged ourselves to the exploration of nature, not for material wealth but for the discovery of her laws of the interrelationship of organisms? Did I no longer share that aversion for a materialistic world which spends half its time chasing the almighty dollar only to spend it on movies, motor cars and jazz? Was it not as true as ever that society must learn to use its leisure with books and nature rather than at horse racing and dancing, if a high order of civilization was to be maintained?

I have been searching for the answer to his questions in the snatches of time when I have been looking down from the clouds or across the sea. The question was presented anew day before yesterday when an interviewer began with one of those flattering introductions, saying that she was writing a series of articles for a well-known magazine on successful men, and that I was on her list. The interview was postponed, but it renewed my reflections.

After all, is this success—this crowding out of

[1] This essay by Dean Chapman was found among his papers after his death, December 2, 1939, at which time he was dean of the Graduate School of the University of Minnesota. It was written in December, 1938, when he was director of the Experiment Station of the Pineapple Producers Association of Honolulu, Hawaii, and while he was on the boat going from Honolulu to this country. It was on this trip that he received and accepted the offer to become dean of the Graduate School at Minnesota, which office he assumed in the summer of the following year, 1939. During his short term of office as dean of the Graduate School he took up again his early morning insect research on "little universes under controlled conditions" and happily returned, as far as the administrative duties of his office permitted, to a realization of the ideals of his youth's enthusiasm.

ideals by the high pressure of the modern world? Were the old ideals wrong? Did they belong to the past generation and was the gradual transition which crowded them out only an expression of nature's law of progress? Has this change indicated that I have been successful in keeping abreast with the modern world, or a weakness in giving up my ideals?

It all came about so gradually that I was not aware at any time of a decision that meant this change. All temptations which seemed to involve a sudden departure were turned down; and there was a series of them. But little by little it came about.

When I received my Ph.D. degree I accepted an instructorship with a salary of little less than an average clerk would receive, married a girl who believed in me and shared my ideals and who had been receiving a salary larger than mine. We worked together with enthusiasm, for she too had been an instructor in the same university. We studied the birds and insects of our neighborhood and began a detailed study of the animal population of a fresh-water lake.

Then war came. I was not accepted for active duty but discovered that my science could be applied to war-time industries. When the war was over there were demands that I continue my industrial activities. The university made the necessary adjustments, and week-end trips half way across the continent began. All vacation time was spent wrestling with industrial problems. Each one looked like an exception. It was worth thousands to the industry and would be solved in a few days or weeks. But there were no more vacations in the north woods where we used to travel by canoe and live in our little shelter tent, studying the things that were to be the object of our life work.

Through it all my university schedule was left inviolate. This other work was relegated to week-ends and vacations. But a change came in the university work also. Gradually I became involved in the direction of graduate students, and the undergraduate classes were shifted to other instructors. I became the head of a department. As time went on it was evident that these graduate students who came even from foreign countries were interested in the economic application of my work and not in my "ideals." They soon absorbed all my regular hours outside of class.

There were still two things left; a class of freshmen during three months each year who did most of their laboratory work in the field, and my own hours between four and eight in the morning. I enjoyed the enthusiasm and curiosity of the undergraduates and told them that there would be nothing in the course that would ever be worth any money to them, but that I hoped they would learn of other things in this world which are worth more than money. Life need never lose interest for them, I said, for there were "books in running brooks." Possibly they were the only ones who believed me, for the dean and the president continued to ask for instances wherein I had saved thousands of dollars for industries, which they could put in their annual reports or their speeches to the commercial clubs. I think their ideals were like mine, but they were feeling the same economic pressure as I, and they were closer to its source.

Hemmed in by modern methods of transportation and communication, I couldn't enjoy the seclusion of a monk's monastery, so I made the Einsteinian substitution of time for space and had my monastery in a modern laboratory between the hours of four and eight in the morning. This meant no parties or theaters the night before, but it was my own time, before I had been tired by the daily duties of my position.

To be sure these hours were not adapted to field work, but I created artificial environments and put populations of insects in them which behaved like little universes under controlled conditions. And I studied them without interruption while the economically minded world slept.

The trips away got longer and the problems more involved. I crossed the Atlantic and the Pacific, went from the Arctic Circle to the Sahara Desert. Now the undergraduates have dropped out of the picture. My work is essentially administrative and the direction of research which is of more economic importance than ever. My time is so expensive that I can not afford to do anything that any one else can do for me. Interviews must be short in order to get them all in during the course of the day. I must make all decisions myself, for I have no colleagues with whom to consult. I sit alone with my judgment, but I am never alone with myself.

My wife has the social obligations that belong to our position and our home establishment and servants to preside over. In our new environment we are surrounded by strange plants and animals, but we have had no time to get acquainted with them. The ideals that I once had and tried to give to the freshmen seem to be gone. It is harder than ever to get up at four o'clock. The transition seems to have been made.

I am not unhappy in it all. I have become attuned to it. I find it hard to relax when I have a few minutes to myself. I shall probably enter into the activities of life on the boat while others will read books, because it is hard for me to let down.

The interviewer asks if she may tell the world how I achieved success; my college mate asks what it is all about. A former professor of mine said that success was the attainment of one's ideals. I look across the sea from my deck chair and wonder. Has the old order changed and is this the new? Is this success?