The Philosophical Society of Texas

PROCEEDINGS

1949

PROCEEDINGS OF THE ANNUAL MEETING AUSTIN DECEMBER 10, 1949

XIV

DALLAS
THE PHILOSOPHICAL SOCIETY OF TEXAS
1950

THE PHILOSOPHICAL SOCIETY OF TEXAS for the Collection and Diffusion of Knowledge was founded December 5, 1837, in the Capitol of the Republic of Texas at Houston, by Mirabeau B. Lamar, Ashbel Smith, Thomas J. Rusk, William H. Wharton, Joseph Rowe, Angus McNeill, George W. Bonnell, Joseph Baker, Patrick C. Jack, W. Fairfax Gray, John A. Wharton, David S. Kaufman, James Collinsworth, Anson Jones, Littleton Fowler, A. C. Horton, J. W. Bunton, Edward T. Branch, Henry Smith, Hugh McLeod, Thomas Jefferson Chambers, Sam Houston, R. A. Irion, David G. Burnet, and John Birdsall.

The Society was reconstituted on December 5, 1936. Membership is by invitation. Active and Associate Members must have been born within, or must have resided within, the boundaries of the late Republic of Texas.

Offices and Library of the Society are in the Hall of State, Dallas 1, Texas.

The Philosophical Society of Texas

Texas was held in the Texas Federated Women's Club at Austin on the evening of Saturday, December 10, 1949. Albert Perley Brogan, president of the Society, presided, and the invocation was given by President Sadler of Texas Christian University.

Members attending were Misses Allen and Ratchford; Mrs. Farnsworth; Messrs. Baker, Banks, Bantel, Battle, Bobbitt, Boner, Brogan, Burleson, Drought, Elliott, Ettlinger, Gambrell, Graves, Green, Hackett, Hickman, Maverick, McClendon, McCormick, Nixon, Pittenger, Richardson, Rosser, Sadler, Schoffelmayer, Sellards, Sutherland, Tsanoff, Watkin, Watkins, Webb, and Williams.

Guests included Mr. C. F. Arrowood, Mrs. Burke Baker, Mrs. Stanley Banks, Mrs. Edward C. H. Bantel, Mr. and Mrs. Nolan Barrick, Mrs. Robert L. Bobbitt, Mrs. Charles Paul Boner, Mrs. Albert P. Brogan, Miss Mary Rice Brogan, Mr. G. H. Brush, Mr. E. L. Cannan, Jr., Mrs. Grace Gormley Cannan, Mr. and Mrs. L. L. Click, Mr. and Mrs. Robert Cotner, Mrs. J. Frank Dobie, Mrs. Henry P. Drought, Mrs. Hyman J. Ettlinger, Mr. O. M. Farnsworth, Mr. Fred Folmer, Miss Llerena Friend, Mrs. Herbert Gambrell, Dr. and Mrs. William M. Gambrell, Mrs. Marvin L. Graves, Mrs. Leon Green, Mr. and Mrs. Jac L. Gubbels, Mrs. Charles W. Hackett, Mrs. John E. Hickman, Mrs. Ira P. Hildebrand, Mrs. James W. McClendon, Mrs. Charles T. McCormick, Mrs. Maury Maverick, Mrs. D. G. Motley, Mrs. Pat I. Nixon, Mr. H. T. Parlin, Mrs. Benjamin F. Pittenger, Mrs. Ben H. Rice, Mrs. Rupert N. Richardson, Mr. Rupert N. Richardson, Jr., Mrs. Victor H. Schoffelmayer, Mrs. Elias H. Sellards, Mrs. Radoslav A. Tsanoff, Miss Leland Watkins, Miss Virdian Watkins, Mrs. Walter Prescott Webb, and Mrs. Roger J. Williams.

PROCEEDINGS

President Brogan: Members and guests of the Philosophical Society of Texas, I wish to welcome you to this one hundred and twelfth anniversary of the founding of our Society. The Society has not met in the capitol of our State of Texas since

1941. I am sure that the other members of our Society who live in Austin join with me in hoping that we may more frequently have the pleasure and the honor of welcoming this Society to Austin.

Our speaker for this evening is a scientist who came from Oregon to Texas some ten years ago. He had won recognition for his work in organic chemistry and in biochemistry. Since he arrived at The University of Texas he has developed here a center for research and graduate education which is favorably known throughout this country and the rest of the civilized world. While he has continued his work in biochemistry, he has also developed interests in broader aspects of science and in the application of scientific methods to important human problems. Many of you have read his book, The Human Frontier. Tonight he will deal with some problems in the light of the science of today, but in a spirit that would have delighted the founding fathers of our Society. I have the pleasure of presenting Professor Roger J. Williams.

Shall WE Pioneer Too?

ROGER JOHN WILLIAMS

Y TRAINING and experience in the field of natural science is perhaps not conducive to a particular interest in history or in the happenings of decades now long past. I confess, however, most sincerely that I feel a real thrill when I read of that meeting one hundred and twelve years ago last Monday, when twenty-four real Texas patriots gathered together in Houston to sign the original roster of The Philosophical Society of Texas.

I am impressed by the fact that the first President, Sam Houston, and the succeeding Presidents of the infant Republic of Texas, Mirabeau B. Lamar and Anson Jones, were present at that meeting. I have deep reverence for all those who attended and subscribed to the high purposes set forth on that occasion. Although the first President of the Philosophical Society, General Lamar, and many of those who with him signed the original roster of members, had brilliant military records, they realized as fully as we do in this day that military competence alone can never make a commonwealth great. In the opening sentence of the memorial to which they subscribed, they quoted Francis Bacon's affirmation that "knowledge is power," and in the closing sentence they said, "Texas has her captains, let her have her wise men." They hoped "that if not to us, to our sons and successors it may be given to make the star, the single star of the West, as resplendent for all the acts that adorn civilized life as it is now glorious in military renown."

It was for the high purpose of perpetuating the memory and spirit of these founders of the original Philosophical Society of Texas that the organization was revived thirteen years ago, and we cannot but commend those who a half generation ago, felt the desirability of perpetuating the aims of the original Society. Pioneers as the original founders were, they looked forward to the time when Texas would progress symmetrically and become noted for its learning as well as its other virtues. I have been struck by the number of times concern was expressed for "scientific and literary" progress, "the scientific inquirer," "men of science," "the scholar" and for those things that "adorn civilized life." It is likewise impressive to know that these heroes spoke of the boundlessness of their "field of researches."

Our admiration and reverence for these Texas pioneers probably have their roots, whether we are fully conscious of it or not, in our own innate pioneering spirit. We have the hidden if not suppressed desire to be pioneers. If we sometimes look backward to the 'good old days' it is because we enjoy the contemplation of that time in the past when pioneering ventures seemed close at hand. We would perhaps prefer to think of those past days rather than of our present modern age when the opportunities for pioneering may appear to have been pretty well exploited. When, indeed, we reach that stage in life in which pioneering is completely in the past—when we have tasted every dish and explored every byway—then it is that we are likely to become cynical, blasé and unresponsive.

There are, it is true, many avenues now closed or nearly closed to pioneering. Geographical exploration either inside or outside of Texas is by no means as alluring as it once was. We cannot emulate our forebears in the Philosophical Society and found here a great commonwealth—we already have a great commonwealth.

In spite of appearances to the contrary, however, I believe many, many opportunities to explore still remain. Furthermore, it seems imperative that if we wish to perpetuate the spirit of the founders of the Philosophical Society of Texas, we must continue to pioneer and press forward to new goals. If we are content merely to hark back to the glorious past, we are neglecting a most important purpose of the Society, namely to keep alive and perpetuate the spirit of the founders. They looked forward—so must we if we are to be worthy even in small degree to carry on their tradition.

We must choose for our pioneering ventures those for which we are equipped in interest and otherwise. I do not believe there is much point in promoting an exploration on the part of people who have no interest or no equipment for the adventure. Lewis and Clark, the successful pioneers who explored our Northwest Territory, had a consuming desire to reach their goal and were equipped for the expedition—they didn't attempt the trip on roller skates nor did they carry B-B guns. They were men experienced in living under the necessarily primitive conditions.

If I were talking to a group of physical scientists, I might discuss a field of exploration which would fall directly in line with their interests, namely, pioneering in the practical uses of atomic energy. Here indeed is a large field and one of tremendous potentialities. Among those who are attending this meeting of the Philosophical Society of Texas there are doubtless many who are greatly interested in the outcome of such exploration, but few who are well enough equipped in the field of physical science to enjoy the exploration itself.

There is, however, one field of exploration—the principal topic of my talk this evening—which I believe is capable of eliciting widest interest and widest cooperation. The urgency for this pioneering is such that the foundations of our civilization are seriously threatened if it is not carried forward. Conviction and full appreciation with respect to the method and potentialities of this pioneering venture cannot come overnight but I have hope that as you study and ponder on the matter, you may be of a mind to join your efforts and interests with those of others in a real emulation of the spirit of the founders of the Philosophical Society of Texas.

Pioneering, if it is real pioneering, must involve doing what has never been done before. I am sure it will strain your credulity to believe me when I say that such an obviously desirable venture as the one we wish to consider, belongs in the category of the untried. Very briefly stated, the pioneering venture for consideration this evening involves utilizing all the means at our disposal, scientific and otherwise, in an effort to understand real people.

It seems almost unnecessary to point out that a great many of our human problems arise within ourselves, and that expertness in dealing with people as they are, must rest upon an understanding of them, and what makes them click.

There is a vast difference between what I am suggesting and the almost universal quest to understand man's nature which began certainly as early as the times of the ancient Greeks. It is my thought that attention to man's nature has been overemphasized. What we are considering here is not so overwhelming or grandiose, it is concrete rather than abstract and is capable of addressing itself to specific problems.

I believe I can best make clear the distinction between seeking to discover man's nature and seeking to become acquainted with real people by an illustration: When biologists look through microscopes at living things they find that the organisms are usually made up of units which they call cells. When they examine different kinds of organisms and different tissues in the same organism, they find that these cells are of almost every conceivable irregular shape and very tremendously in size. Some are so small as to be barely visible under a high-powered microscope, others are as large as a grain of wheat or as the end of one's finger. Nerve cells, though invisible to one's naked eye, may be a yard long—an invisible thread with a relatively large frayed knot at one end.

In spite of the tremendous difference in size, shape, make-up and functions, biologists have often thought it de-

sirable to describe and draw pictures representing what they call *the* cell. It is most often shaped like a watermelon and constitutes an abstraction—a something that has no real existence outside of the mind of the person who originated it.

While I have no objection to use of this abstraction in its proper place, I do regard it as unfortunate when this abstraction stands in the way of learning about *real* cells. *Real* cells are a matter of great interest to me as a natural scientist. "The cell," an abstraction which in this day has questionable value, is something about which I have little concern.

My attitude toward real people and the abstract "man" or hypothetical "average man" is much the same. Real people are of very great concern to me and I think to all of us, but abstract man is only an idea. He doesn't have any particular job, he doesn't marry anyone in particular, he doesn't have any particular trouble or any particular aspirations. So far as I am concerned, and especially in connection with the pioneering project under discussion, I am willing to let some one else worry about him. Consequently, when someone remarks to me, "Dr. Williams, I understand you are interested in the individual," I have to disclaim any such interest. "The individual" again is an abstraction, a hypothetical creature, a composite of all the individuals on the face of the earth. This abstraction covers more territory than I care to contemplate.

The study of individual people implies the existence of differences between them, because if they were all the same it would not be necessary to consider them individually. In this case, if you learned about one, you would have learned about all.

It is a biological fact beyond dispute that human individuals differ from each other markedly and in many ways. It is a commonplace fact that people do not have heads or noses or ears or legs of the same shape and size. It is also commonplace that these differences, in facial features for example, make a tremendous difference in people's lives. Even so, it is something of a shock for some people to learn that the endocrine glands of each individual are also distinctive in size, shape and function and that this fact also may profoundly affect their lives.

There has indeed been an unfortunate tendency in the medical field and elsewhere to assume a hopeless and fatalistic attitude toward heredity. We tend to say, "If heredity is important there is nothing that can be done about it. No one can choose his own ancestors." This line of reasoning is utterly fallacious. In order to make the most of our individual lives we need desperately to know what our individual endowments are.

Perhaps the most important difference of all is in people's minds. Our respective mental make-ups are so different as to be a most serious stumbling block to the development of human understanding—especially so when we are so ignorant of these differences and tend so strongly to judge other people's minds using our own mind, of course, as a norm of yardstick.

Let us be reminded that individuality—the fact that we are different from each other—is the real basis for our love of freedom. If we were all the same we would not demand and fight for the right to make our own choices, to follow the dictates of our own consciences, to make our own mistakes and to live our lives in our own way. If we were all the same we would all fit into the same pattern. The state could make all our choices for us; we would be content with the result; we would all be saved a tremendous amount of trouble. But Americans believe in individual rights and as long as they are Americans they will resist the efforts of anyone who proposes to control their every move.

With your kind permission I should like to digress for a few minutes to indicate as background material some of the things that I believe we already know about people. First, I believe everyone has a desire to gain satisfactions out of life and that to this extent everyone is selfish, and that we should never expect people to be otherwise. Second, everyone has potentiality for altruism too. I believe we are all capable of including others in our orbit and of being social beings with social interests.

It is with respect to gaining satisfactions out of life that we differ most strikingly. We, all of us, have a complex of urges but these urges and hungers differ in intensity and in pattern to an almost unbelievable extent from individual to individual. Another factor which contributes to diversity of behavior is the fact that various means may be taken to satisfy these urges; some attempts may turn out to be quite futile and unwise. Even if two people's urges were identical, the means used to satisfy them probably would not be.

One of the prime reasons for studying human individuals and paying attention to their differences, is to lay the foundations for human understanding. Ignorance regarding the far-reaching differences which exist can only bring friction and strife. Knowledge regarding these differences is absolutely essential, in a world of real people, to the cultivation of understanding. To quote again as our founding fathers did: "Knowledge is power." This particular kind of knowledge is, in my opinion, indispensable to social progress.

Human friction is one of the greatest obstacles to social progress, since it always impedes and often prevents the adoption of worthwhile measures. Let me take an illustration from relatively recent history, namely that having to do with the origin and development of Woodrow Wilson's League of Nations. I believe competent people are in fairly general agreement that Woodrow Wilson's fundamental idea was a sound and important one, and that if it had been applied, it would have been the basis for great progress in international affairs.

A careful consideration of the matter will, I believe, lead to the conclusion that the worst obstacles which the idea had to overcome were obstacles involving human friction. The intensely human elements involved in the struggle against the League by Senator Lodge and his sympathizers and for the League by Woodrow Wilson and his followers, were most evident. This sad page in history might have been written differently if we had developed human understanding to a degree even remotely comparable to our technological progress. I do not believe that either the leaders of this struggle or the followers understood human beings as they are, or as a moderate amount of scientific investigations will prove them to be.

If I understand people's attitudes at all, there is a great deal more name calling that goes on in people's thinking, than there is in their outward speech. How often do we, in our thinking, call the person who has a different opinion from ours a "so and so"? I maintain that in at least 99 cases out of 100 our judgment of the individual is wholly wrong. We have mistaken what is, for what is not.

I was very much impressed a few months ago when one of our more able political writers wrote an article in *Harper's* sizing up and evaluating the various men in the Truman administration. Now it happens that the writer of this article has a general view of the situation which is in approximate agreement with mine so that I did not offer resistance to his ideas on this score. In spite of agreement on this phase, however, I thought the article pathetic in the extreme, because of the writer's lack of appreciation and his puerile ideas about human nature. Some day, perhaps twenty or fifty years hence, when human science has been developed, such articles will be looked back upon and laughed at as the gibberish of an unenlightened age.

I am not citing any particular writer as being unusually ignorant in these matters—all political writers must of necessity be ignorant with respect to human nature and its operations because a science of human kind has not yet been developed. I was interested to read in one of Toynbee's books—and I'm sure Toynbee has the elements of greatness

—his explanation of how he happened to be a historian. I must not take time to discuss the question in detail here, but I am convinced on the basis of scientific information which I have but which he lacks that Toynbee's explanation of why he became a historian is fundamentally about as wrong as it could be. Toynbee's rating as a historian is very highparticularly among those who are not professional historians —and I have no desire to detract from his greatness, if I could, because his general ideas are not repugnant to me. But it does seem to me that a man who is able to interpret the course of history through all of its ramifications in all ages, should be able to present a more convincing picture of how he personally came to be a historian. There is a vast area of facts concerning human nature which I regard as scientifically irrefutable about which Toynbee and other historians and political writers have known practically nothing.

Because of the lack of human understanding we human beings are not able to work together as we should; we fight each other's ideas on the basis of false assumptions with respect to the originators thereof, and dissipate our energies trying to overcome obstacles which do not really exist.

I hope you will pardon it if I draw upon, as an illustration of what I mean, the situation in which we find ourselves at the present moment.

I am presenting to you for your consideration an idea which if valid is important. There are difficulties in language which prevent my conveying the ideas to you in an adequate fashion. I am not as skillful in the use of language as I would like to be. My oral presentation leaves much to be desired. In addition there are semantic difficulties which stand in the way. Words and phrases do not have a consistent meaning. They can mean one thing to the speaker and quite a different thing to his listener.

In addition to the language and semantic difficulties there are difficulties based upon the fact that the pattern of my

mind differs from that of yours. We tend to think differently from each other in dozens of ways. If I were to present an idea in mathematical terms, for example, some would grasp it more readily but most would probably divert their attention to something else until the mathematical phase of the discussion was over.

I had an interesting two hour conversation a few weeks ago with one of the men whom I have heard credited with having one of the best minds in America. I brought into the conversation the thought that I have presented here, namely that individual people have different patterns of mental abilities. His emphatic reply was, "I know they do." He then proceeded to tell me how he came to this firm conviction.

The most important factor in his education with respect to this fact was his marriage. He said that at the time of his marriage he held the opinion that people either had good minds or else they had poor minds. A good mind, according to his conception, was able to grasp mathematical and technically scientific principles, whereas an inferior mind was not able to cope with such ideas. Shortly after his marriage, not before, he became acquainted in a most shocking manner with the fact that the woman whom he had taken for better or worse was not only ignorant regarding various scientific matters, but was wholly incapable of grasping them.

He confided in me that to him the situation was most serious—he was appalled and stunned by what he had found out. He faced the fact of their marriage, and whether it would be ruined by his discovery. Happily, in time he learned that his wife, while not possessing a mathematical-scientific mind, has a faculty for intuitive thinking and mental abilities in other directions which he says far surpass his own, "In some ways," he told me, "her mind can play rings around mine." This, from a man who is commonly regarded as tops among those who are brilliantly capable.

It is possibly beside the main point of this discussion, but I do want to express my extreme regret that in our universi-

ties generally such matters are not presented or learned, and that my scientific friend had to learn the facts in a hard and dangerous way.

Besides the difficulties based upon language semantics and the different psychological patterns of mental make-up, is the obvious difficulty involved in the fact that my education and upbringing is different from yours. If you had been born abroad of missionary parents and had been educated as a biochemist and had the experience of teaching and thinking in terms of chemistry for several decades, you would be able better to understand what I say than you are. These cultural difficulties are for the most part obvious and well recognized and I will not dwell upon them.

Above and beyond all these is a difficulty which may be great or small, depending upon your estimate of me, as the one who is presenting the idea. Now the validity of the idea has nothing whatever to do with me, but I realize full well that what I am and what you think me to be, will have a vast effect practically, upon its acceptance, adoption and fruition. If you imagine me to be "materialistically inclined" and unresponsive to the "higher things of life," you may shun my proposals; if you think I am a "publicity seeker," or am "getting too big for my breeches," you will certainly rebel. If you recognize some of my limitations as well as I do, you may discount my proposal upon the assumption that as good an idea as this one purports to be couldn't have arisen from such a mediocre source. This latter thought is based upon the assumption, which I regard as completely untenable, namely that intelligence is a unitary trait and he who is unintelligent in one respect must be unintelligent in every respect, and vice versa.

If I were a wealthy man presenting the idea to "have nots" it would immediately be under a serious handicap; if I were extremely poor and clad in rags I would not even have the opportunity to present the material to you. Yet the idea would be the same.

Possibly one of the most serious obstacles and one which I believe a thorough study of human beings would largely remove, is the question which unconsciously arises in your minds if you examine your own thoughts honestly, in connection with any proposal which is set before you. It is the question of the motives which lie behind the person who presents the idea.

Diogenes, the Greek cynic, is said to have carried a lantern in the daytime looking for an honest man. In the twenty-three hundred years that have elapsed since Diogenes, we have not improved greatly upon his method for discovering honesty. I am fully convinced, however, that by scientific study, following up leads already brought to light, it will be possible not too many years hence to distinguish at will between a man of honest purposes and one who has a faked honesty. I would like, while we are on the subject, to express as my opinion the likelihood that we will find fundamental dishonesty far rarer than we may presume. Everyone is seeking satisfactions out of life, and most would prefer to gain these satisfactions without inflicting social harm, if they knew how to do it.

What are the objections which may be raised to the proposal which we are considering? From the scientific side we may hear the suggestion that it isn't scientific to study individual men. Science is involved in finding out generalizations. If there are no generalizations, there is no science.

While there is truth to this idea, it is equally true that the first step in any science is observation. In the development of scientific study of human beings it is my opinion that observations will have to be extensive and intensive before we will be in a position to generalize successfully. Premature generalization is not defensible on any scientific grounds. Systems of classifying human beings which have been developed up to now are, in my opinion, wholly unsatisfactory; they are too simple and too superficial.

Another objection which I know to be in some people's

minds is this: Social science is now developing successfully along entirely different lines, the culture process is coming to be understood better and better. Individuals are, after all, individuals; society is something different; and in order to understand society we must study *society*.

It should be obvious that I have no quarrel with social science or its development. I do object, however, to fostering too limited a point of view and I do maintain that certain most pressing *human* problems—perhaps they should not be classed as social problems—cannot in the nature of the case be solved until the approach which I have outlined is adopted. Humanity needs to be studied from every angle, not merely from one selected angle.

Let me illustrate my meaning if I can from the field of biology: If we consider a colony of single-celled organisms—bacteria, for example— growing together, we may fail to note any evidences of organization within the colony—each cell seems capable of living its own life out of contact with other cells, and of reproducing by itself a whole colony.

Certainly, however, a little farther up the biological scale we find cells that are interdependent. In the fresh water polyps Hydra, for example, each cell is capable of reproducing a whole "colony" yet the "colony" takes a definite shape and the different parts have specialized functions.

Highest in the biological scale are the mammals in which a most cursory examination reveals extensive organization. It is obvious that the muscle cells, the epithelial cells, the connective tissue cells, the specialized glandular cells, the nerve cells, the blood cells, etc. are all knit together into a giant "colony" which acts as a unit—a single organism.

In a parallel fashion, if we consider humanity as a whole in all its relations, we do indeed find plenty of evidence of social organization. We are not merely a collection of individuals, each living its independent life, and we cannot hope to get anything like the whole story of humanity by looking at individuals alone. We are members of society. Social scientists have been concerned mainly with the societal aspects of human activities—how human institutions grow, operate and evolve. These studies are essential to the understanding of human activities. It is my thought, however, that human society is not as closely organized as it might be—it certainly has not reached the stage where we can study it adequately and disregard the individuals which compose it.

To consider human activities solely from the standpoint of society and culture is to limit our understanding unnecessarily. Humanity does not constitute either a mass of individuals or a social organism. It constitutes both a mass of individuals and a social organism. Study of human individuals and social forces are both essential to an adequate understanding of human activities and human problems.

The importance of the pioneering proposal before us for consideration can best be emphasized by thinking in terms of various specific problems:

One of the broadest and most important human problems is the one that confronts each one of us and each one of our children, namely, that of choosing an education and a life work. Upon these decisions hinge the whole problem of the conservation of human resources.

I do not believe it is necessary to stress before this audience the importance of having the right education available for the right person and making it possible for intelligent choices to be made. From my point of view the major part of the problem of crime and a large part of the problem of mental disease hinges upon our ineptness in this very field. A large amount of evidence indicates that youngsters who go into crime are those who have an unusual pattern of abilities and tastes who never "find themselves" in school work and are never able within the pattern of conventional society to gain the desired satisfactions out of life. If we could eliminate the square pegs in round holes in our schools, in business and elsewhere we would probably have solved the problem of

crime as well as much of the problem of mental disease.

I believe it will be apparent to everyone that no mass study of "man" nor any study of human institutions can take the place of developing an expert knowledge of what individual human beings are like and how their capabilities vary.

Let me illustrate the type of information that is needed, by a homely analogy. It is obvious that people cannot all wear the same size of shoes and that the size of the average human foot is a matter of very little consequence in the shoe industry. What is required is a knowledge of the kinds of shoes needed and the number of each kind. Such information is available and is indispensable. To fit most adult men there are required about forty-five sizes and shapes of shoes. The most popular sizes are 81/2 C and 9 C. These together fit about ten per cent of the male population. The next most widely used sizes are 81/2 D and 9 D, 8 C and 91/2 C; each of these fit about four per cent of the male population. The next most prevalent sizes are 9 B, 8 D, 9½ D and 10 D; each fits about three per cent.—and so on. It is interesting that different racial stocks have different requirements. It happens that in Texas our population is such that a relatively large proportion of narrow shoes are sold. In Minnesota and its environs where the Scandinavian stock is relatively abundant, much broader shoes are required. A shoe buyer in Texas who buys shoes suitable for a Minnesota population would certainly go broke. In fact this whole problem is a highly important one in the shoe industry and a prominent cause of failure in the retail shoe business is the inability to buy the right sizes in the right amounts so as to be able to turn over the entire stock.

With respect to fitting education to children we are decidely inexpert. We do not know how to classify children successfully with respect to the various types of minds which they possess nor do we know in specific cases just how far formal education should be carried.

I hesitate to bring this subject into the discussion because I know that some of my audience will want desperately to ask such questions as these: "Well, if children are as different as you imply, how many different kinds of schools would you have?" How would the school system be organized?" In my opinion these questions are premature. I suspect that in the coming century our ideas of education will change materially, and that our school systems will be modified from time to time to take care, in a measure, of our advancing knowledge. Until our knowledge of individual children and their needs has advanced further, no one can tell what the modifications will be. This is a good time to repeat the favorite saying of the Founders of the Philosophical Society of Texas, "Knowledge is power." When we have the required knowledge, we will be in a position to modify our school system where necessary—without more knowledge than we have, we are groping in semi-darkness.

Another related problem which calls for the same type of knowledge is that of marriage. I shall pass over this subject hurriedly—most of the members of this Society are passed the most eligible age. I do want to say, however, that various marriage clinics in different parts of the country have, even on the basis of the little that we know about individual human characteristics, done a remarkable job in helping people select the right mates and avoid the wrong ones. I'm sure most of us, if we were in the marriage market, would prefer to do our own picking and choosing— and yet "knowledge is power," and more knowledge in this field would not hurt us.

Another broad area in which the approach that I have outlined is essential, has to do with health. Here we have a whole gamut of problems, many of which are of special interest to us in our Biochemical Institute.

Why is it that there are so many obscure diseases that doctors and present-day medical science are unable to treat successfully? The answer we feel sure is due to the very

lack which we are discussing. We need to know more about actual people and how they differ in biochemical make-up, one from another.

Why do some people have allergies, hay fever, asthma, and the like, when others who are seemingly neither less nor more virtuous, escape entirely? We don't know the reason, because sufficient attention has not been paid to the remarkable differences in physiological machinery found among human beings. Medical science, particularly the basic physiology and biochemistry, has been largely devoted to the problem of understanding the so-called normal individual and has paid relatively little attention to differential physiology of individuals. It should be obvious since "knowledge is power" that when we know better the "why" of allergies, we will know better how to treat or prevent such diseases.

Why do certain people tend to be obese and find it practically impossible to keep their weight within reasonable limits, while certain other individuals continue automatically to remain as thin as rails? Again, not sufficient attention has been paid to the metabolic patterns of individual people to answer these questions. When we know more we will undoubtedly be able to do something effective to cope with the problem—a problem which I understand interests a considerable number of my friends of both sexes.

Why is it that some people can use tobacco freely and live to a ripe old age, while according to reliable statistics and medical information, many others are killed off by its use in their thirties, forties, and fifties. We do not know the reason nor can we forewarn those who are vulnerable before it is too late. This is a problem which probably can be solved with relative ease but only by paying close attention to the metabolic patterns of vulnerable and non-vulnerable people.

Why is it that some individuals who do not eat differently from their fellows, have sound and lasting teeth while others are vulnerable to all sorts of disorders and have to turn to the porcelain and plastics industries for help? Again, we do not know the answer and we cannot gain it until we study individuals more. Obviously the possibility of being able to remedy the situation depends upon knowing the cause. Knowledge is power.

Why is it that some individuals can pass through all sorts of mental anguish and psychological stresses and retain their sanity while other individuals crack up and become mental disease patients? We do not know the reason for such mental illness nor how to prevent it. We shall probably know both the reason and the cause when we shall have paid more attention to the scientific study of individuals—not from the standpoint of psychology alone but also from the point of view of physiology.

A problem of a related nature has actually been attacked in the past two years in our Biochemical Institute, and I believe that already we have at least an incomplete answer. The problem is: Why is it that some people are unable to use alcoholic drinks in moderation, but instead become compulsive drinkers enslaved by liquor?

By studying the metabolic patterns of individual human beings and extending our study to individual laboratory animals, we have found that nutritional deficiencies can cause a perverted appetite for alcohol and that supplying the deficiencies may cure the perverted appetite.

We think we have established a new principle in connection with the cause of disease. It appears that individual people, as well as individual rats, have distinctive nutritional needs. That is, various members of a population do not all need the same amounts of calcium, thiamine, methionine, etc. Some need relatively large amounts of certain essentials. This being the case, a whole population might eat exactly the same food with the result that some individuals would develop deficiencies and others would not. We are of the opinion that potential alcoholics are those who are vulnerable because of certain high nutritional requirements and

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that they become more and more vulnerable as they drink more and more liquor, because liquor always tends to crowd out of the diet numerous nutritional essentials. The only hope of combatting alcoholism is therefore to supply abundantly all the nutritional needs of the vulnerable individual.

The animal experiments on which these ideas were based were relatively simple and I believe you might be interested in them. Initially each of twenty or more rats was placed in a separate cage and furnished good food and two drinking bottles—one containing pure water, the other ten per cent alcohol. The positions of the two bottles were switched daily and record kept of the alcohol consumption. There was no spying on one another, there were no parties, and the rats were not allowed to consult each other's consumption records! Parents and offspring were separated.

Under these conditions the rats, because of differences in inheritance as further study has indicated, showed a high degree of individuality. Some drank alcohol heavily from the start, some never drank any. Some drank little at the start but after a few weeks or a couple of months cultivated an appetite and drank heavily at the end. Some drank spasmodically—for a day or two they would drink heavily then they would go on the water wagon for several days before returning to the alcohol beverage.

All of this was interesting but the results obtained when the same experiments were repeated while the animals were on different diets were most remarkable. It was found that when the diet was marginally deficient the animals showed variation only for a short time. In a few weeks all were drinking heavily. On the other hand, when we used a diet fortified with abundant amounts of everything needed in rat nutrition, the rats again failed to show variation. None of them drank!

Clinical trials are now under way in various parts of the country to determine whether supplying abundant amounts of all nutritional needs will cure alcoholism in human beings. While I am not in a position to report on these trials yet, I can say that we have confidence that we are on the track of something important.

In connection with these experiments and their outcome I want to point out two important facts. First, the existence of hereditary factors in the susceptibility to alcoholism does not by any means preclude the possibility of combatting the disease. Second, a nutritional approach, taking into account the augmented requirements which our work has indicated, has potentialities of the highest order in connection with numerous other diseases of obscure origin including mental disease. This approach not only involves the consumption of good food, but may also involve attention to special crucial nutritional needs which are not readily apparent.

It is difficult to exaggerate the importance of nutrition in the development and maintenance of healthy bodies. What do our bodies need and what have they needed during development from the time that they were single fertilized cells? The needs may be placed in four categories: (1) water, (2) air, (3) a suitable ambient temperature, and (4) food. The first three items are relatively easily supplied, the fourth—the food—is the complicated one. It is our opinion that if we can supply to individuals adequately and consistently all their nutritional needs, we can eliminate many human diseases not now under control. It has been and is the purpose of our Biochemical Institute, which has continuously received magnificient support from the Clayton Foundation for Research to explore nutritional factors and how they function. To solve many of the problems of health, it is essential that the nutritional requirements of individuals be studied. We need to know more about the nutritional needs of real people; knowledge of the needs of the hypothetical average man will not suffice.

I have tried to outline in this discussion the imperative need for the understanding of human individuals not only from the standpoint of health but from the standpoint of developing a science of human understanding which will ultimately serve as a basis for human cooperation and world peace.

To develop the needed insight and knowledge to solve the world's problems is a tremendous task, but if we center our attack on one specific problem after another steady progress can be expected. I have a great deal of sympathy with the view expressed by Confucius about 2400 years ago, in which he emphasized the necessity of attacking simper problems first. He said, "Their persons being cultivated, their families were regulated. Their families being regulated, their states were rightly governed. Their states being rightly governed, the whole empire was made tranquil and happy."

Perhaps faster progress always comes when we set our sights on practical but less grandiose and all-encompassing goals. I was heartened to hear from the lips of one of our most distinguished members a few weeks ago a discussion of the practicability of forming an Atlantic Union. If we cannot form a federation among a few democratic countries, our hope for world federation—the ultimate goal—is quite out of the question.

The development of a broad science of human relations is not a grandiose idea, it is one which can only come step by step through solving or partially solving one problem after another. It will require the cooperation of experts in various disciplines, social scientists, psychologists, biologists, geneticists, physiologists, biochemists, etc. Not the least important of these potential contributors are those in the natural sciences.

Never anywhere in the world have scholars from various disciplines, including the natural sciences, banded themselves together to gain a better understanding of human beings, those remarkable creatures whose potentialities for good and evil are unbounded. Why not start here in Texas?

It would be presumptuous on my part to indicate exactly how this can best be done. I have suggested to the President of our Society the desirability of appointing a group from this body to study the matter thoroughly and report at a later date.

The pioneering spirit is not dead in Texas and I am confident that the unique challenge which has been presented here will be given serious thought. I hope that the answer to the question "Shall we pioneer too?" will be "Yes."

BUSINESS PERIOD

President Program: Since the last Annual Meeting, the Society has lost by death these valued members:

Charles McTyeire Bishop John William Gormley George Alfred Hill, Jr.

With your approval the chair is asking the following members to prepare notices about each of our departed associates for publication in *Proceedings*: Miss Hogg, Messrs. Acheson, Geiser, Kemp, Kilman and Stephens.

There are no new members of the Society to be presented at this time. You will recall that by mail referendum it was decided to postpone selecting nominees to fill the few existing vacancies until a special committee could make a study of our present membership and of the persons who have been suggested for membership. Accordingly, all pending nominations are being referred to the committee on membership for study. From the report of the committee and from other data available to it, the Board will then select nominees whose names will appear on the next official ballot.

Your President wishes to make a suggestion about the future development of The Philosophical Society of Texas. As you know the Society was organized by many of the leaders of the Republic of Texas in 1837. For many decades the Society did not function, but in 1936 it was reactivated. We have frequently commemorated our founding fathers. They pioneered, and in the words of our distinguished speaker tonight, we may wonder in what way we, too, may pioneer. I cannot avoid the conviction that interest in commemoration will diminish as we depart farther from our centennial year.

In recent years several suggestions have been made as to definite functions which this Society might undertake during the second half of the twentieth century. I would not urge a hasty decision. I shall merely ask you whether you wish to take affirmative action to set up a committee to study a constructive program for this Society. If the members present here tonight wish to take favorable action, I suggest that a motion might be considered asking the new President to appoint a committee to study this problem and to send a written report to all members so that they can vote on the question before the 1950 meeting.

[On motion of Mr. Maverick, seconded by Mr. Webb, the Society voted to approve the appointment of such a committee.]

On behalf of the Society we wish to extend thanks to the Committee on Decorations which consisted of Mrs. Mc-Cormick (chairman), Mrs. Dobie, Mrs. Ettlinger, Mrs. Hickman, and Mrs. Sutherland.

The chair then called for the report of the Committee on Nominations, which was read by Mr. Rosser and unanimously adopted.*

NECROLOGY

CHARLES McTYEIRE BISHOP

1862-1949

After a distinguished career of nearly half a century in Texas, Charles McTyeire Bishop died at his home in Houston on November 30, 1949, at the age of eighty-eight. Born in Jefferson, North Carolina, February 2, 1862, son of Benjamin W. S. and Julia Anne (Goodykoontz) Bishop, he grew up in Virginia where he received his B. A. degree in 1884 and his M. A. two years later from Emory and Henry College and entered the Methodist ministry. After pastorates in North Carolina (1887-89) and Missouri (1889-1910), he came to Texas in 1911 as president of Southwestern University at Georgetown.

^{*}See Page 33.

His eleven years at "Texas's oldest university" covered a critical and important epoch in the development of that institution and brought Dr. Bishop recognition as an educational statesman as well as a capable administrator and a stimulating scholar. He retired from educational service temporarily in 1922 with the title of president emeritus, to become pastor for three years of St. Paul's Church in Houston, one of the strategic pulpits of Southern Methodism.

From this post he was called in 1925 to the headship of the department of New Testament and professorship of Greek in the School of Theology of Southern Methodist University at Dallas. There, at an age when most men are preparing for retirement, he began a new career which was perhaps as significant and fruitful as any other decade of his long and useful life. The vigor of his intellect, the catholicity of his learning, his awareness of current movements in religious, educational and social thinking, and above all the old-fashioned charm and graciousness and integrity of his personality, made him a vital factor in the development of hundreds of future spiritual leaders of the region; and these qualities, coupled with his life-long study of, and first-hand experience in problems of higher education, enabled him to make lasting contributions to the life of the university as a whole and to the cultural life of Dallas. He retired from active service as a professor emeritus in 1934 and made his home first in California and later in Houston; but through frequent visits and correspondence he kept alive his interest in the institution.

Dr. Bishop was twice a member of the General Conference of the Methodist Episcopal Church, South, and served on the Commission on Unification which ultimately united the three branches of American Methodism. He travelled in Europe in 1900, was Cole Lecturer at Vanderbilt University in 1909, and was the first president of both the Educational Association of the Methodist Episcopal Church, South, and the Southwestern Society for Biblical Study and Research. He was a founder of the collegiate scholarship society of Alpha Chi, and a member of the Pi Gamma Mu, Sigma Alpha Epsilon, and Theta Phi fraternities. His published works include Jesus the Worker (1910) and Characteristics of the Christian Life (1925) in addition to monographs in theological and educational journals.

He was married on June 3, 1889, to Phoebe Eleanor Jones and to them were born four daughters and one son. Honorary doctorates were conferred on him by Central College (1889), Baylor University (1920) and Southwestern University (1923). He became a member of The Philosophical Society of Texas in 1946.

JOHN WILLIAM GORMLEY

1875-1949

JOHN WILLIAM GORMLEY, Doctor of Philosophy by vote of the faculty of the University of Innsbruck, scholar in the law and in the humanities and a writer gifted with the wit and the pen of a gentler Swift, prized his part in The Philosophical Society of Texas above all other honors and activities. It was so stated in the Dallas *News*' account of his death, which occurred at his home in Dallas on July 26, 1949.

No member of this Society founded by the fathers of the late Republic ever met more fully the qualifications they had in mind. A true and passionate lover of learning, this leader of the bar of his city and state brought a brilliance of intellect and a magnificent moral and spiritual understanding to bear on all of the public concerns of his time. It was he who shed distinction in this society of friends.

The son of Thomas Gormley, a native of Ireland, and of Alice Haney Gormley of Lexington, Kentucky, he was born in Lexington on December 15, 1875. He attended the public schools of his native city, then took his undergraduate work at Saint Benedict's College, Kansas City. He went abroad in 1899 and won his doctorate at the university in the Austrian city. He returned to his homeland to continue his studies, entering the Cumberland University Law School at Lebanon, Tenn.

For a time J. W. Gormley followed pursuits other than the law. He taught school for several years and even managed a coal mine in the Middle West for one period. But the fascination of the law proved too strong, and in 1920 he moved to Dallas where he began his career at the bar. He was associated at first with the firm of Locke & Locke, then became a partner in the firm of Touchstone, Wight, Gormley and Price. Ill health caused him to retire for a year or so, but upon regaining his strength, he formed the partnership of Gormley and Ragsdale in 1945.

J. W. Gormley's love of teaching was abiding. Even in the course of a busy career at the bar, he served as professor of medical jurisprudence at Baylor University Medical College and in the institution which has now become the Southwestern Medical College of The University of Texas. He also found time to serve on the faculty of the Dallas Young Men's Christian Association School of Law, now a division of the Southern Methodist University School of Law.

In 1921 John W. Gormley married Maude Crowell of Wichita Falls. In addition to his wife he was survived by a daughter, Mrs. Edward L. Cannon of Austin; a son, Thomas M. Gormley of Dallas, two sisters and three brothers.

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At the time of his death a host of friends and admirers paid tribute to "this Gulliver among the Lilliputians." The words of two represent much of the feeling and belief of all. One of his law partners of more than twenty-five years said that the academic trappings of J. W. Gormley's schooling did not even suggest the scope of his vast, life-long study. He recalled that he could absorb a 1000-page volume of history in an evening—and absorb as a sponge takes up water. Even in his later years, when half blinded by cataracts, he could devour three or four books a week. "The ancients, who are but names to us ordinary mortals, were his familiars." And all that he read and heard became a part of him, being synthesized by his superb intelligence into great understanding and great wisdom.

Another friend of the years, a newspaper editor, spoke of one enduring evidence of his extraordinary personality. This is to be found, he said, in the vast body of correspondence which J. W. Gormley carried on for almost three decades with individuals in widely-scattered parts of the world. These letters "bristle with philosophy and humor, occasionally with biting satire." The rapier play of his mind made his letters a constant delight to those privileged to receive them. The same friend said that J. W. Gormley was a kindly man in whom the chuckle was more characteristic than anger or bitterness; but he could lash out at the inept, whether on a high court or in less august surroundings.

"The names of all but a chosen few of those who have served the law are writ in water," J. W. Gormley once wrote; but that will not hold true in his life if his letters are collected and published. These written records are a reminder to posterity that in the death of J. W. Gormley, the law has lost a great servant, the community a great mind.

S. H. A.

GEORGE ALFRED HILL, JR.

1892-1949

GEORGE ALFRED HILL, JR. was born in Corsicana on January 12, 1892, the son of George Alfred Hill and Julia McHugh Hill; he died at Greenville, South Carolina, on November 2, 1949. He received B. A. and LL.B. degrees from the University of Texas and was admitted to the State Bar of Texas in the year 1911. He was married June 24, 1916, to Mary Edythe Vandenberge of Victoria, to which marriage were born three children, Joanne, George III, and Raymond Hill.

Colonel Hill began his career as a lawyer in 1911 as an attorney for the International and Great Northern Railroad Company. In 1917

he became senior partner in the firm Kennerly, Williams, Lee and Hill, which firm was acting general attorneys for the Houston Oil Company of Texas, and in 1930 he became general counsel of the Company, serving in that capacity until 1932. He was vice president of the Houston Pipe Line Company from 1925 to 1932, and from 1931 to 1932 was executive vice president of the Houston Oil Company of Texas and was elevated to the presidency of both companies in 1932.

In World War I Colonel Hill was a captain of the infantry. Later he held the rank of lieutenant colonel.

As a member of the American Petroleum Institute, Colonel Hill served as its vice president for production from 1934 to 1946. In international affairs, he served as petroleum advisor to the Secretary of Interior on the Anglo-American Oil Treaty in 1944 and 1945; and was selected as advisor to the American Delegation to the London Conference on the Anglo-American Oil Treaty. He was also prominent in the affairs of the Independent Petroleum Association of America, the Mid-Continent Oil and Gas Association, the National Petroleum Council, and was a trustee of the Southwest Research Institute.

Colonel Hill was a member of many civic, technical, social and professional clubs. He was a director of the Federal Reserve Bank of Dallas and served as a member of the Economic Policy Committee of the Chamber of Commerce of the United States. He was a member of the Philosophical Society of Texas and president of the Society in 1942. He was an active member of the Sons of the Republic of Texas and principal founder of the San Jacinto Museum of History Association, to which he had given several thousand items of rare historical material. He was a vice president of the Texas State Historical Association; a member of the Texas Folk-Lore Society, the Society of American Archives, the Sociedad Bibliografia de Mexico, and the Newcomen Society of England.

He was author of many articles and technical papers affecting the oil and gas industry, and in all of these works and his law briefs he had a beauty of style and diction which aroused the admiration of his readers.

As a husband and father Colonel Hill was loving, devoted and generous, and as a friend, true, loyal and faithful.

In the passing of Colonel Hill the Philosophical Society of Texas has lost a great advocate, the State and Nation one of its first citizens and his family its dearest tie.

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