BULLETIN of the MENNINGER CLINIC

Vol. 23, No. 6 November, 1959

Contents:

Topeka
Kansas

Copyright 1959, The Menninger Foundation

BULLETIN of the
MENNINGER CLINIC

VOLUME 23 NOVEMBER, 1959 NUMBER 6

Published bimonthly by The Menninger Foundation, 3617 West Sixth Street, Topeka, Kansas. Annual subscription rate $4, single numbers 75 cents. Manuscripts, orders, and change of address notices should be sent to the *Bulletin of the Menninger Clinic*, Box 829, Topeka, Kansas. Editor, Jean Lyle Menninger, Editorial Board: H. C. Modlin, M.D., Herbert Schlesinger, Ph.D., Paul Pruyser, Ph.D., and Karl Menninger, M.D. Consulting Editor, William C. Menninger, M.D. Editors' Assistant, Mary Douglas Lee. Second class postage paid at Lawrence, Kansas.

ACTIVITIES OF THE MENNINGER FOUNDATION

RELIGION AND PSYCHIATRY: A NEW PROGRAM IN THE MENNINGER FOUNDATION

A Program in Religion and Psychiatry at The Menninger Foundation was initiated in September, 1959. Its support is made possible for a five-year period by a grant from the Danforth Foundation of St. Louis, Missouri. During this period the program will be evaluated to determine if it is advisable and possible to make it a permanent part of the activities of The Menninger Foundation.

This is a general description of the program. Emphasis is placed upon the program's objectives, activities, and organization. More detailed information about specific program activities is available on request.

Background

Although this expanded program is new, exploratory activity involving religion and psychiatry has been going on at The Menninger Foundation for several years. The values accruing from previous activity led directly to the enlarged program. Previous activities have included:

An annual elective seminar on religion and psychiatry within the curriculum of the Menninger School of Psychiatry.

Participation, as trainees in the Marriage Counseling Service, by Chaplains from the Armed Forces.

The annual Edward F. Gallahue Conference on Religion and Psychiatry, bringing together for basic discussion a small group of psychiatrists and theologians.

Studies and publications on this subject by members of the staff, including one special issue of the *Bulletin of the Menninger Clinic*.

Service by a theologian, Seward Hiltner, as an Alfred P. Sloan Visiting Professor in the School of Psychiatry during 1957.

Close cooperation with the programs of clinical training for clergy and theological students conducted at the Topeka State Hospital, the Boys' Industrial School, and other nearby institutions; these programs accredited by the Council for Clinical Training.

Advisory services to seminaries, philanthropic organizations, church boards and officials where psychiatric consultation was requested.

Although each of these activities was developed for a particular purpose, without reference to a general plan, reflection has shown that the items collectively began to form a pattern. They are all concerned with education or research. In education, they moved in two directions: what the student of psychiatry wanted to find out about religion, and what the student of religion wished to discover about psychiatry. In research, they emphasized disciplined but informal exchange concerning basic issues. The discovery of this basic pattern within previous activities, of a two-way exchange of information and knowledge and exploration of basic issues, has been useful in planning the expanded program.

As a nonprofit corporation, The Menninger Foundation exists in order to promote education and research in psychiatry and the related disciplines. The clinical services—The Menninger Clinic, the C. F. Menninger Memorial Hospital, the Childrens' Division (Southard School), and the several other therapeutic institutions affiliated with The Menninger Foundation's Department of Education—are the indispensable basis for such research and education. But these clinical services maintain and improve the quality of their work because they are intimately linked with research and education.

Thus treatment, research and education form an interrelated triad of activities, no one permanently separable from the other.

A program in religion and psychiatry within The Menninger Foundation, therefore, finds its place properly at the points of education and research in a setting of clinical practice. In the context of the Foundation's purposes, there are two senses in which religion, dealt with through research and education, may be considered a "related discipline" to psychiatry. First, representatives of religious institutions may improve the human relations aspect of their work by learning certain things from psychiatry. Second, phychiatrists (and psychologists, social workers, nursing personnel and others) may more effectively aid some people if they grasp the significance of certain religious factors in their lives.

The fact that there is a body of experience along both these lines makes it possible to include these matters within postgraduate professional education. The fact that much is still unknown makes it vital that study and research go hand in hand with education.

The Menninger Foundation is a psychiatric, not a religious, institution. Its reason for having a program in religion and psychiatry is, therefore, immediately pragmatic. Psychiatrists encounter religion (or its absence) among people they try to help. To know the significance of this may be important. At any rate, the tradition of science dictates that such observable facts cannot be set aside without exploration. Therefore, psychiatrists in training should at least have the opportunity to learn what is known about this. On the other hand, the representatives of religious institutions are involved repeatedly in human relations. Their labors may make the intervention of the psychiatrist unnecessary in many cases, or may worsen already precarious situations—the difference lying in part with the assimilation of understandings that psychiatry makes available.

Objectives

The ultimate objectives of the program are eminently practical: better therapeutic service by psychiatrists to people (including their religious dimensions) who need it; and better religious ministry (including the human relations dimensions) to persons who want it. The actual present situation, however, in both religion and psychiatry, gives this program a peculiar opportunity and obligation: a continued wrestling with the basic questions at issue between religion and psychiatry.

From the side of religion and the clergy there has been in recent years a growing appreciation of what could be learned from psychiatry—better understanding of troubled people, clues on methods of pastoral care and counseling, insight into ways of religious ministry to the mentally ill, a new vision of the importance of such specialized ministries as hospital chaplaincy, and a stimulus to such educational methods as clinical pastoral training. Although there have been different forms, every major faith group in the United States has moved in these directions in recent years.

From the side of psychiatry (including such related disciplines and professions as clinical psychology and social work), the past few years have seen an increasing interest in the religious elements in the people to be helped, an active seeking of trained chaplains to work as members of the psychiatric team, a concern for the church as a community that may

foster mental health, and sometimes an examination of the religious dimensions of healing and therapy.

These positive moves, from both sides, have produced many constructive results. In the world scene, these results take on special importance, for until now they have not been duplicated in any other country. And yet these results may prove ambiguous, even dangerous, if they are not undergirded at a deeper level. For example, if clergymen should absorb skills and insights from psychiatry, but should fail to rework these into their own professional role and rethink them within the framework of religious thought, they would run the risk of distorting the pastoral office and betraying their heritage. But if, on the other hand, they have re-examined the new skills and insights in both practical and theoretical dimensions then the outcome is permanent and constructive, and both theology and pastoral practice are enriched.

Psychiatrists may also run risks if there is no deeper basis. If they come to believe that the church may be a good community for an expatient or that sound religion may have therapeutic implications, they run the risk of trying to "use" church, pastor, or religion, with the possibility of rebellion at any moment—unless they have studied these possible values in the light of deeper considerations. But if the latter have been examined, then the results are constructive.

Both psychiatry and religion rest upon some kind of "image of man." Theories and doctrines and beliefs about man's nature are diverse, within as well as between the two fields. Neither theology nor psychiatry has the whole truth about man. It is probable that there is some real agreement in the underlying premises, some disagreement that may be made mutually enriching by honest discussion, and some recalcitrant divergence that must be faced honestly regardless of outcome. There can be no substitute for confrontation, with the probable result of agreement about some things, enrichment about others, and baffled abeyance about still others. Ability to work together cannot permanently be sustained unless there is also readiness to think together without premature assurance of agreement.

It is the immediate objective of this program to foster such inquiry, discussion, and work as will help to clarify basic issues, let the agreements or disagreements fall where they may. Thus the program will not be content with practical cooperation, the bases of which are unexamined, nor with a theoretical imperialism in any quarter. The ultimate aims

are practical, more and better help to suffering human beings. But these can be approached only by honest and basic inquiry. This program is privileged to approach such inquiry at a fundamental level.

Theologians

The program will bring to Topeka, at suitable periods and intervals, a few "expert theologians." Their primary task will be discussion with the "expert psychiatrists" already there. By "expert theologians" we mean those who have a persistent and scholarly concern with the central theological disciplines. By "expert psychiatrists" we mean those who are concerned with basic premises as well as clinical practice. Within this group are included also psychologists, social workers and adjunctive workers.

Several of the consulting theologians, who have varied viewpoints and backgrounds, will come to Topeka at regularly scheduled intervals. Others will come for particular periods and purposes. The first group will include theologians from the Protestant, Roman Catholic, and Jewish traditions. The second group will include these and other traditions and points of view. The agnostic, positivistic, or atheistic points of view will not be ignored, where well-informed representatives can be found. It is hoped also that scientific students of the several religions may participate.

Beginning July 1, 1960, there will be each year a group of from three to six "theologians-in-training." These will be ordained clergy who are completing, or who have completed, relevant doctoral courses, and who are concerned with dealing critically and constructively with some aspect of psychiatry's relation to religion. The available positions will be open to postgraduate theologians from any religious group. A special brochure is available concerning this aspect of the program, and may be had upon request.

This small group of Theological Fellows will normally remain at The Menninger Foundation for one year. Scholarship help is available for those selected, as it may be needed. The training program of all these students is under the direction of The Menninger Foundation's Education Department, with particular but not exclusive use of the facilities available in the Menninger School of Psychiatry. Each Theological Fellow is expected to carry out a study project of his own, the guidance concerning which will be according to the nature of the project. Thus the curriculum for each "Theological Fellow" will include common-core and individualized elements. Since most of these Fellows will eventually

become teachers of clergy, it is felt that their influence will be far beyond their numbers.

It may be noted that these Theological Fellows are postgraduates, that is, they are all engaged in responsible study beyond their professional degree. The same is true of the Psychiatric Fellows in the Menninger School of Psychiatry, who have completed their medical degree and internship before enrolling in the School. Thus the Theological Fellows' Program will be at the same educational level as that already existing in the School of Psychiatry.

Relationships already exist with the clergy and theological students in training at affiliated institutions. Even closer ties exist between the chaplains' training program of the armed forces and the Marriage Counseling Service of The Menninger Foundation. The Program in Religion and Psychiatry plans to make such relationships still more productive. But for the most part, the students in these programs are at the graduate-professional rather than the postgraduate scholarly level. Therein lies the difference of these programs from that for the Theological Fellows and therein lies the opportunity for mutual enrichment.

Psychiatrists

Three members of the psychiatric staff of The Menninger Foundation are serving on a stated part-time basis in the Program in Religion and Psychiatry. One clinical psychologist and one social worker serve in similar fashion. Thus the program has opened with allotted time from five psychiatric personnel. By good fortune, each of these five persons has had special studies in religious matters; and among them, Protestant, Roman Catholic, and Jewish backgrounds are all represented.

In addition to this group of regularly assigned "expert psychiatrists," counterparts of the "expert theologians" visiting Topeka on a regular basis, other psychiatric personnel will be used for particular occasions, both from Topeka and elsewhere.

As to the postgraduate physicians who are Fellows in the School of Psychiatry, there will be no immediate change in the offerings made to them. Principal reliance will continue to be on the Religion and Psychiatry Seminar, an elective in the school's curriculum. With the new program, it is expected that the seminar may be enriched. There will also be more opportunity to follow up interests that small groups of the psychiatric Fellows may have.

The staff and consultants of the program are also available for similar

service to the postgraduate students from other disciplines: now including clinical psychology, social work, and hospital administration. Specific plans will be devised, however, only upon request.

The psychiatric and related staffs of The Menninger Foundation and affiliated institutions are large. The program is now ready to participate with groups of these staffs, on request, on any matters where religious-psychiatric concerns are involved. Some of this has been done in the past; but since no administrative or personnel provision was made for it, it was sporadic. Now it may be given proper attention whenever requests come in, as for example in relation to particular clinical conferences and consultation. The criterion of evaluation for such requests is the prospect of usefulness in furthering the objectives of research, education and effective treatment described above.

Outreach

The first area of outreach beyond Topeka borders is to religious institutions. Requests have often been received for workshops or seminars for clergy or directors of religious education. Now, within limits, such workshops may be conducted. It is hoped to hold the first clergy workshop in 1960, for clergy from Kansas and adjacent states. As time and resources permit, other workshops and conferences will form a part of the program.

The second area will be to offer, as desired and requested, consultation service to psychiatric and related institutions concerning the relation of religious matters to their programs. The interest in this is growing and within the limits of time and personnel, our experience will be made available to any who wish it.

The third area will be the continuation of the Gallahue Conferences in Religion and Psychiatry, bringing to Topeka for high-level discussion leaders from both psychiatry and religion and other professions.

From research, conferences and workshops, and the work of individual staff and consultants, it is anticipated that new publications will result. The program is not committed to a particular pattern of publication, but hopes to stimulate the production of thoughtful and basic materials in this area, regardless of point of view.

There seems to be widespread interest among lay men and women, both inside and outside the churches, in the relationship between religion and psychiatry. The program does not currently have resources to deal with such an interest directly, beyond an occasional publication. But if

the interest proves to be large, and is implemented with resources, the program will consider education for the laity in this area.

Research

Research and advanced study at the present will concentrate along three lines. First, there is the discussion of basic issues conducted by the Gallahue Conferences and also by staff and consultants at other times. Second, there are the individual research projects of the Theological Fellows. Third, there are the research and study projects of the individual staff members and consultants. Counsel is also available for any of the postgraduate students in psychiatry or allied disciplines who are doing projects involving religious concerns.

As need and opportunity appear, it is hoped that eventually the program itself, with the help of the Research Department of The Menninger Foundation, may proceed with one or more special research projects.

Staff

The staff or faculty of the Program in Religion and Psychiatry consists of four groups; they are:

The regular full-time staff members of The Menninger Foundation who are assigned to this program for stated amounts of time. At present, this group consists of Thomas W. Klink, Program Coordinator; Clark Case, Bernard H. Hall, and Joseph Satten, psychiatrists; Paul W. Pruyser, clinical psychologist; and Richard Benson, social worker.

The clergy or theological consultants serving on a regular though part-time basis. At present, this group consists of the Reverend Charles A. Curran, Roman Catholic, the Reverend Seward Hiltner, Protestant, and Rabbi Fred Hollander, Jew.

The staff members of The Menninger Foundation who give occasional service to special projects of the program. This list will be developed as the program proceeds.

The consultants, theological and psychiatric, who are called upon for special service. This list is now being developed in relation to certain projects that will be cultivated early in the program.

The program, administratively, is under the direction of the Department of Education, and of its Dean, Karl Menninger, M.D., and its Assistant Dean, Herbert Klemmer, M.D.

Following are brief biographical notes concerning the staff members in the first two categories above:

Richard Benson, M.S.W., is a social worker, and now serves as Chief Social Worker in the C. F. Menninger Memorial Hospital.

Clark Case, M.D., is a psychiatrist, and is a Senior Staff Psychiatrist in The Menninger Foundation. He is Psychiatric Director of the Program of Training in Marriage Counseling.

Charles A. Curran, Ph.D., is a Roman Catholic priest, and is consultant to the program. He is Professor of Psychology at Loyola University, and is associated with the National Institutes of Mental Health Research project in religion and mental health.

Bernard H. Hall, M.D., is a psychiatrist, and serves as a Senior Staff Psychiatrist of The Menninger Foundation.

Seward Hiltner, Ph.D., is a Presbyterian minister, and is consultant to the program. He is Professor of Pastoral Theology at the University of Chicago.

I. Fred Hollander is a rabbi and is a consultant to the program. He is Assistant Professor of Pastoral Psychology at Yeshiva University, and is associated with the research project on religion and mental health of the National Institutes of Mental Health.

Thomas W. Klink, B.D., is Program Coordinator, serving on a full-time basis. He is a supervisor of the Council for Clinical Training, and until recently was Chaplain of Topeka State Hospital.

Paul W. Pruyser, Ph.D., is a clinical psychologist in The Menninger Foundation's Education Department and is research associate to Karl Menninger, M.D.

Joseph Satten, M.D., is a psychiatrist, and serves as a Senior Staff Psychiatrist in The Menninger Foundation.

All inquiries concerning the program should be addressed to:

Thomas W. Klink, Coordinator
Program in Religion and Psychiatry
The Menninger Foundation
Topeka, Kansas

THE PSYCHIATRIC DIAGNOSIS*

KARL MENNINGER, M.D.

In making a psychiatric case study we follow the classical scientific method of first *collecting* our data and then *arranging* them and *recording* them in some organized structure. These three different processes may go on almost concurrently. The order of collecting the data, except for those of the psychological examination, usually follows a systematic program which automatically provides for organization. In the course of recording data various conventional schedules are used, so that the data are arranged according to chronological sequence, contiguity, physiological relationship or some other principle.

But this is not organization enough to constitute or make possible a diagnosis. What it gives us is several packets of data about a patient; data of different kinds, related but not integrated. We have a condensed biography, a written photograph of his present physical status, and a description of his psychological functioning. The historical or longitudinal view has supplied certain data to be correlated with the data obtained by the cross-sectional view, the examinations. Both types of data have been obtained as the result of a relationship established with the patient and those about him, a relationship which is a kind of transaction. The patient, hoping for certain benefits to himself, submits himself to our observation and gives what he can to the mutual process which is, in the last analysis, a search for the proper treatment.

To arrive at a decision regarding the best treatment for a particular patient, the data of our historical and cross-sectional studies must be added up purposively. They must be organized, synthesized and integrated. We must take these pieces of undigested information and so arrange them as to form a symbolic representation of a patient's life process, including his recent failure or "illness." Since this life process is one of interaction between one organism and many, between one organism and a world surrounding it, we must also know something of this world. A continuous process has been going on for some time, and since the interaction has been—of late—conspicuously unsatisfactory to someone, we must carefully examine this phase. But we have to look at more than the

* This is a chapter for inclusion in the revised edition of *A Manual for Psychiatric Case Study*, now in preparation, in which the original author has been assisted by Paul W. Pruyser, Ph.D., and Martin Mayman, Ph.D.

troublesome areas; we have to see as much of the life picture as is relevant to the correction of the troubled areas and deflection from the desired goals. And we have to look at these in the frame of some model or concept of what the life process is.

The individual who is now our patient was once the patient of an obstetrician, who handed him over in time to a pediatrician. The nucleus of the personality present at birth, that combination of hereditary and congenital items which suddenly appeared, was acted upon and interacted with many changing features of the new world. First there was a little world of mother and brother and rattle and bottle. The larger world beyond them—a room, rooms, grass, trees, sky, people—gradually took shape. This growing personality, with the aid of parents and peers and teachers, ultimately discovered and explored more of the various environments about him—some intimate, some proximate and some more distal. He established relationships with parts of these environments, and to some extent changed them. By this he himself was changed, and his change again affected the environment. Each continually made new requirements of the other, but certain habits and balances and expectations became established. If these were occasionally upset by unexpected events, they were shortly re-established in the main, and "life went on."

Most contacts between environment and individual are pleasant or at least tolerable; some of them are necessarily painful and intolerable. Intentionally or otherwise, the environment may have seriously injured or crippled the particular individual under study; he, in turn, may have seriously damaged or inflamed parts of his environment. Some situations are easy to overcome, some are mastered with difficulty, some are overwhelming. Accidents and fortuitous events keep occurring which rupture patterns of adjustment so that compensations and rerouting have to be made.

But now this individual has sought a new, specialized environment. He is a patient. Something has gone wrong. Spontaneous self-righting devices and maneuvers have failed. The supportive efforts of friends have failed. He is distressed. He is sick.

We used to say that to make a diagnosis the psychiatrist should endeavor to discover what a patient *has* to react with, what it is he is reacting *to*, and *how* he is reacting. Using this formula, the conclusion of a diagnostic case study might be: "The patient *has* a schizoid personality, with which he *reacts* to a demanding wife by *retreating* into schizophrenia."

This is a diagnostic statement, and it is a great improvement on the kind

of diagnostic statement prevalent in the earlier days of psychiatry: "The patient has dementia praecox, hebephrenic type."

Actually, the newer and apparently clearer explanation is now almost as antiquated as its predecessor. Let us scrutinize each of the three legs in this tripod. First, there is the statement that the patient "has" a schizoid personality. This expression seems to distinguish between the individual and his personality, as if one could change personalities as he changes clothes. A man reacts with what he is, not with what he has; it will be the net total of reactive capacities which have been acquired by him as the consequence of his development. This development undoubtedly included a great many previous episodes of reacting to things and being reacted to by others.

This objection may sound like quibbling—and perhaps it is. Many of those who recognize the verbal incorrectness of using "have" when they mean "is" go on doing so because it is conventional, and because they want to take advantage of the implication that something one *has* can be changed, whereas something that one *is* may be unchangeable. If we say one is a quiet, hard-working farm wife, we imply that that is what this person will remain. But too much is apt to be concluded from such condensations. There are no two quiet, domestic, bourgeois housewives who are alike. They have all had different lives, and their reactions are very likely to be quite different. Case study implies that we have examined the life history of an individual, a particular and special individual, and learned about some of his reaction patterns and how he acquired them. And instead of calling them collective names—schizoid, extroverted or anything else—it is better to try to describe them.

The second statement was that the patient is reacting to some *thing*. Here the thing was a wife. Dr. John Romano of the University of Rochester begins his lectures on psychiatry to the medical students each year by reading the introductory paragraphs of a chapter in Tolstoi's *War and Peace*—the substance of which is that there is something in human nature which impels us to do what all our experience shows to be false and impossible, namely, to seek to ascribe single causes to complex events. Nobody in the world reacts only to any one thing. Important as a mother, a husband, or a job *are*, there are other factors in the environment. It would seem as if Adam's method of evading the responsibility for eviction from the Garden of Eden was so obviously false that no one would *ever* again say that his wife (or any other one person) was (wholly) to blame.

It is true that medical diagnoses can sometimes be made in which manifestations of defense and distress can be seen as specific reactions to a specific substance or event. This does not contradict the statements above in theory, because many necessary conditional factors are assumed to be present when the specific reaction to the specific event occurs. But for practical purposes it would be ridiculous to deny that as a general thing the same symptoms of distress will occur in most human beings living under ordinary living conditions if they swallow arsenic or typhoid bacteria, or if they do *not* swallow some vitamins. Hence for practical purposes we say that certain things are the causes of certain diseases, or at least of certain reactions which become known as diseases. For a long time this medical model prevailed in psychiatry.

Sometimes—actually it is very rare—psychiatric illness will appear under circumstances which will make it look as if the illness were a reaction to some *thing* or event. The older state hospital legal forms used to require that this "thing" be identified in the case of each patient who was admitted, and it is amusing to read the long list of "causes," including: "alcohol," "masturbation," "meanness," "deserted by husband," "loss of virginity," "financial difficulties," "business failure." It may be taken as axiomatic that psychiatric illness always represents multiple and complex reactions to multiple factors—factors in the body, in the environment, in the memory, even in the imagination. Equilibria that had been established are disturbed, self-regulation is impaired and disorganization of the internal government is threatened. This view of mental illness has replaced the older simple cause-and-effect and "reaction" concepts.

Finally, in the old diagnostic triad, we come to the expression, "*how* he reacts." In the example given, the word schizophrenia is used to describe this. In the opinion of many of us it does so inadequately. Guiteau, who shot Garfield, was thought by some to be "reacting by a retreat into schizophrenia"; but the same has been said of Joan of Arc, some famous artists, many patients in back wards of state hospitals, and many shy and often creative boys and girls in high schools and colleges. The International Congress on Schizophrenia, held in Zurich in 1957, brought together psychiatrists from all over the world, abstracts of whose presentations fill four volumes of small print, a total of 1828 pages! The conclusion of it all is that there are hundreds of different conditions called schizophrenia by different doctors. The use of such a word is thus of little use; my opinion is that it does a good deal of damage.

> "It is clear that many terms—some diagnostic, like schizophrenia, others nondiagnostic, like libido—function as panchrestons. [Hardin's suggestion for a meaningless explain-all and "enemy of thought."] . . . 'Schizophrenia' is supposed to 'explain' so-called insane behavior in much the same way as 'protoplasm' explained the nature of life, and 'ether' the manner in which energy travels through space. Not only do these words *not* explain the phenomena in question, but, as Hardin rightly emphasized, they hinder understanding and explanation. If this is so, it means that just as 'ether' and 'protoplasm' obscured important problems in physics and biology, so 'schizophrenia' (and many other psychiatric words) may obscure fundamental problems in psychiatry . . . From a point of view of psychiatric nosology . . . 'schizophrenia' may be doubly harmful."*

In the early stages of a science, panchrestons serve a valuable function. They are like advanced landing stages for pushing forward of penetrating explorations. They enable scientists to enlarge, deepen and broaden their concepts. Diagnostic labels of the older type represent this kind of early generalization. They represent an effort to deal with the long recognized fact that symptoms tend to occur in clusters, the composition of which tends to remain constant—at least for awhile. This tendency persists. Hence careful study of the classical syndromes of psychiatry and of the psychopathological indices discovered by clinical psychology constitutes an essential part of the psychiatrist's diagnostic equipment, even though he no longer proceeds on the hypothesis that these are disease entities. The psychiatrist today must go far beyond this. Not merely the association of various symptoms but their meaning and their function are of importance. By meaning I refer to the way in which they express the patient's drives, wishes, needs. By function I mean the way in which they hurt the organism and the way in which they protect it.

Ego Functions in Illness

The Freudian personality concept holds that the human organism is motivated by a pair of interacting drives, always to some extent fused and to some extent contending. They determine the relationship of the individual to the other individuals and objects of the world constructively and destructively. It is as if each individual were armed in the one hand with a sword and in the other with a bouquet; great art is necessary to combine the use of these skillfully and productively. Obviously there must be some kind of internal direction and control, functions to which the designation

* Szasz, Thomas S.: The Classification of "Mental Illness." *Psychiat. Quart.* 33:93, 1959.

"ego" has been given. (Language is such that we get to speaking as if the ego were a detached body incorporated within us to do this work. If one remembers that this is a figure of speech it will do no great harm to use it so.)

Ego functions are numerous and complex. They are most apparent in controlling and directing the instinctual forces just mentioned. This requires that the external world be perceived, past experiences remembered and the stipulations of the conscience heeded. The ego must thus have at its disposal both internal and external radar equipment, with complex receiving and recording apparatus. In some extraordinarily competent way, the ego weighs the information received from all these sources and undertakes the reconciliation of the various demands made upon the organism—demands of the instincts, of conscience and of reality with its host of dangers, threats, invitations and temptations.

All of this implies a considerable tension which has to be kept at an optimal point. If the tension drops too low, the individual ceases to strive and accomplishes nothing, perhaps not even his own preservation. On the other hand, if the tension becomes too high, there is pain and a compulsion to "do something" lest this little universe explode, as larger universes have done. We assume that the ego has some sense of self-preservation. Sensing the threat to the integrity of the organism, the ego institutes emergency measures. Unexpected events are always occurring and for these there have to be *ad hoc* solutions. A situation may be corrected by taking certain steps, but whether or not it is corrected, an increase in tension will occur and be perceived as discomfort. This can be alleviated by processes considered "normal" because they are effective and of short duration. But the prolonged use of any emergency device, or the use of some of the more extreme salvaging devices are considered "abnormal" in the sense that they are undesirable, expensive and adventitious.

The emergency devices employed by the ego for organismic survival are known to us as symptoms. Some symptoms are merely signals of the fact that an emergency device is needed and others report that an emergency device is in operation. The noise made by air going out of a punctured tire, for example, is a physical illustration of the former; the bumpy sound caused by running over a patch that has been applied is an illustration of the latter. Both of these would correspond to symptoms because they are not "right." They are somewhat uncomfortable and expensive and unwanted.

Once all symptoms were thought to be meaningless except in the sense that they were signals of distress. Then, through his studies of the unconscious, Freud enabled us to see that they often had definite, concealed meaning. The fear of high places turned out to be, in some cases, an unrecognized ambitiousness; the senseless hatred of a certain individual proved to be a mask for love.

The dynamic understanding of symptoms as expressing intentions of the organism helped us to get a new view of the strivings and stratagems of the unconscious depths of the human personality. But it did not do full duty to the utility of the symptom. The symptom not only has meaning. It has function; it has usefulness. It is not necessarily the destruction of an individual; it is an effort toward the economizing and preserving of the organism.

We would say, then, that the psychiatric patient, no matter what his symptoms may be, *i.e.*, no matter what he does (and this includes some pretty bad behavior), is doing the very best *he* can unassisted. This is the way his ego deals (dealt) with what seems (seemed) to it to be an impending crisis. The solution was not good enough, we grant; it may not satisfy anyone, not even the ego. In fact, this very dissatisfaction of the ego with what it has been able to do—and not do—may be what gets the patient to the psychiatrist. With a little help, a little rest, a little advice, a little external restraint, some corrected misinformation—the ego may be on its feet again, dismiss its emergency devices or employ them more skillfully and resume its level of achievement, perhaps to do even better than before. In other cases much more help is needed.

We look carefully, therefore, at the severity, form, and the trend of the disorganization: Is it mild, or is it severe? And what is its configuration? Taking a longitudinal view, one looks for previous occurrences of disability and unsatisfactory adjustment. Perhaps there were none, or perhaps there were minor flurries of maladjustment at various times, never severe enough to be called illness. But five years ago or three months ago or last week a different sort of thing made its appearance. It was more disturbing; it was more painful; there was more reaction on the part of the environment or of the patient, or both! And whether matters have gotten better or worse since then, this exacerbation led up to the case study that is now in process!

Or, again, the life history of the patient may have shown several severe illnesses, periods of failure, or retreat, or belligerency. There may have

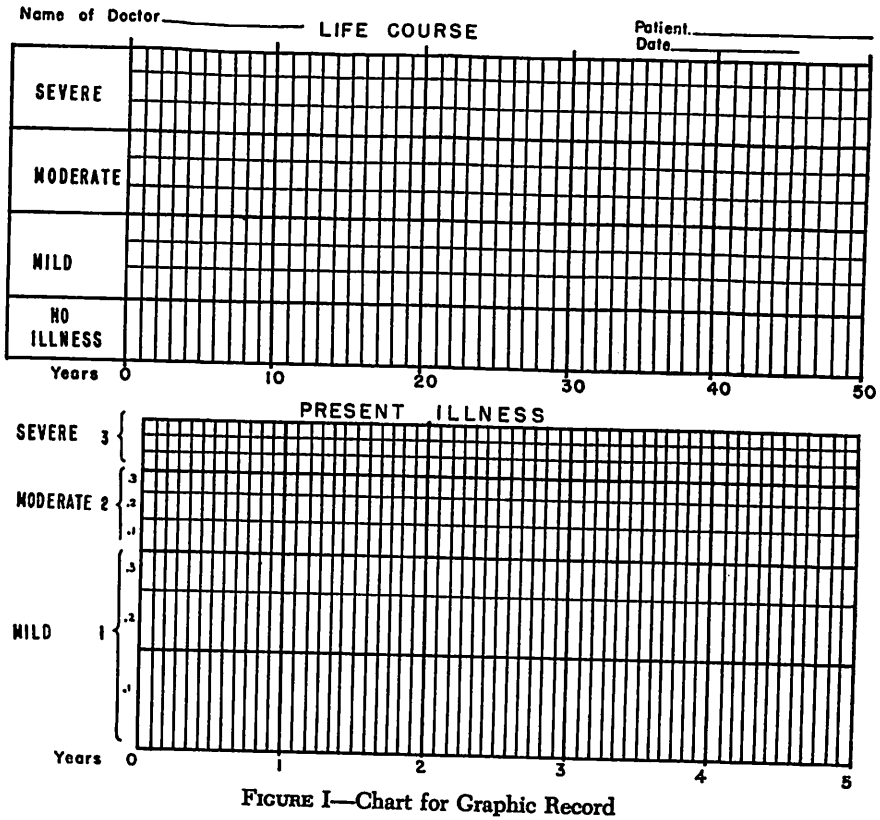

FIGURE I—Chart for Graphic Record

been a long, continued maladjustment of a moderate degree. Even while the case has been under observation changes may have been noted.

Such things can very well be charted—not with pinpoint accuracy, of course, but sufficiently proximate to make possible a graphic record of the life adjustment, its level of satisfactoriness or healthiness. It is helpful to plot a graph of this kind, using some such scale as the one shown in the chart at the top of this page. Adolf Meyer used to require a graph of a similar kind on all his patients. Our chart leaves room for a low-power, long-range graph for the life history, and a high-power, shorter-range graph on which to bring out the fluctuations in the present illness. (See Figs. I and II.)

Diagnosis

A psychiatric diagnosis, therefore, is always a complex set of statements —descriptive, analytic and evaluative. They have to describe a patient's

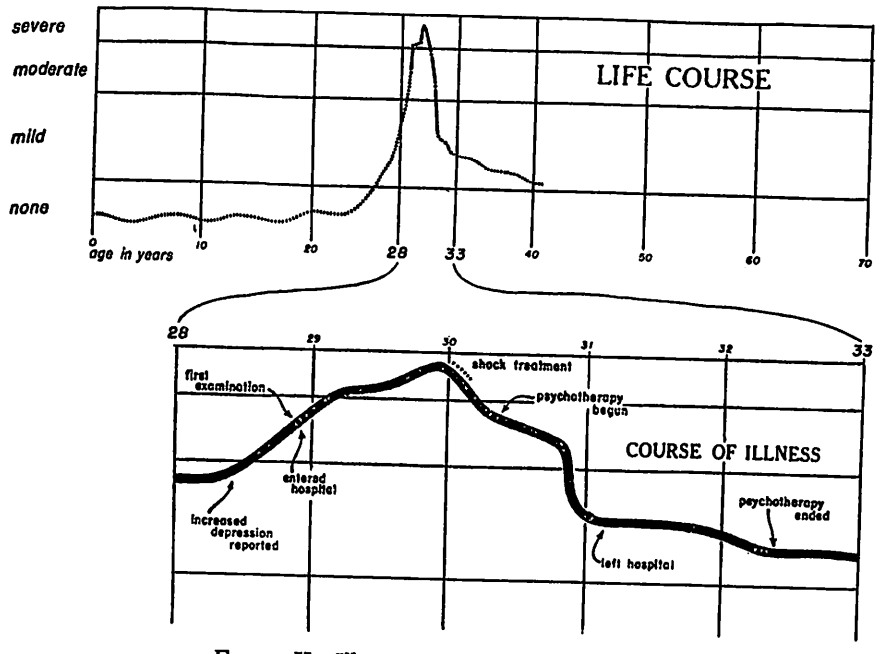

FIGURE II—Illustration of Graphic Record

method of interacting with his environment, past and present. We examine the environment as well as the patient, and the psychiatric diagnosis is always both polydimensional and multidisciplinary.

Furthermore, a psychiatric diagnosis is always continuous and changing. Theoretically, it cannot be recorded, because no sooner has a description been entered upon a case record than it begins to be out of date. The process goes on, it changes; but the designation remains fixed. Yet for a doctor not to make a record would be incorrect and unscientific. The diagnosis must be formulated and may be recorded, providing it is *dated*, and provided it is revised and amended and kept up to date with the aid of progress notes, reformulations and redescriptions. In this sense progress notes constitute amendments to diagnosis as it is (was) recorded.

Diagnostic conclusions are arrived at by a process of accretion. For practical purposes there comes a time when they have to be set down in writing, usually in tentative form at first. In rare instances this can be after a very brief observation of the patient. Ideally it is after a case study along the lines we have indicated. Such a study can usually be done in the course of ten to 15 hours of work, but it is rarely possible or wise for

this to be concentrated within the compass of one day. An observation period of time is desirable, at least a week and preferably longer.

The recording of diagnostic conclusions is sometimes made only in connection with the closing and filing of a case record. But since the tentative diagnostic statement is the working hypothesis for the planning of treatment and for a decision regarding prognostic probabilities, it is an essential part of the case summary (or "report of the examination") which is used for staff conferences, information to consultants, guidance of nurses and many other purposes.

The conception of modern psychiatric diagnosis thus goes beyond recognition of symptom clusters or syndromes, however they be labeled. It is not sufficient to describe these evidences of the organism-environment interaction as seen from the organism's side. We do have to recognize how one individual is affected physically and psychologically and indicate these effects. And on the other hand, we have to describe the environmental aspects, not in such detail perhaps, but with a realization this is the environment from which the patient came or in which he is attempting to live, and this is the environment to which he may have to return. We are interested further in the dynamic aspects of the interaction between the organism and environment as gauged by the disorganization produced in the individual, its form, its degree of severity and most important of all, its trend. Upon the latter we base our estimate of prognosis.

Prognosis

While the patient is most desirous of receiving treatment as his dividend from the diagnostic study, what the friends and relatives and fellow citizens eagerly await is a prognosis. Their first question, often unuttered, is, "Can this man be saved? Can anything be done?" Their next question is, "If he is not to be abandoned as hopeless, what may we expect? Are we justified in permitting ourselves any hope, and if so, what are our justified expectations?" Man is a time-bound animal, and unlike other members of the animal kingdom he can look ahead and make plans. The interruption of an illness always means many disarranged plans for many people, all of whom want to know from those of us who are more experienced and who have studied the trend in the particular case in the light of our experience, what they may expect of this unit in their group, so that they may plan wisely for him and for themselves.

Prognosis is perhaps the most difficult part of diagnosis. Some physi-

cians are so afraid of arousing false hopes that their overcautiousness or skepticism lead them to unintentionally convey discouragement and even despair to the patient, his relatives and those who are trying to help in his readjustment. The effect of this is sometimes to bring about the very state of incurability that might have been averted by a different attitude. But it is certainly also true that no good can be expected of trying to arouse hopes in a patient by a prediction which the doctor himself does not believe.

How do we arrive at a prognosis with some degree of scientific precision? In the case of many somatic illnesses we know empirically the probable duration. We know about how long a child with measles will be bedridden, and about how long it takes for a broken femur to mend, or for a bronchitis to subside. But the syndromes of psychiatric illness are not specific entities and do not have this characteristic of self-limitation in time. It is of little prognostic value to tell relatives that the duration of a depression, based on empirical knowledge, may be from three days to ten years! Mental illness is of infinite variety and the particular course of any particular instance of disorganization must be estimated by a determination of the forces contributing to it.

Hence the illness of each individual has to be studied *de novo*. We re-examine the history to discover what the course of previous attacks has been. We examine the general form of the illness to discover whether it has a tendency toward cyclic recurrence or episodic appearances.

Then we most carefully examine this particular illness. Perhaps we graph it on a chart like the one shown some pages back. We are not only concerned with whether or not the severity of the illness is increasing; we are concerned with whether or not the rate of exacerbation is increasing. (This is the reason for the use of logarithmic graph paper.) Or perhaps the symptoms are still increasing, but the rate of increase has diminished. Or a remission in the severity may have begun again with an increasing or with a decreasing acceleration. Frequently the examining physician enters the case to find the illness at an apparent standstill, a plateau on the graph. We cannot find assurances either that the disorganization is increasing or that it is decreasing. The very inertia of the situation imposes an additional problem (not only for the prognosis but for the treatment).

Treatment, however, has already begun. The case study itself is a step in the treatment. (Not the first step; bringing the patient to the doctor, for example, must be considered a step. Getting him hospitalized is another.) The effect of the case study itself upon the patient is always carefully considered by the observant psychiatrist in formulating a prognostic statement. We sometimes see instances in which the patient is cured by the examination alone (often to the doctor's astonishment)! Unfortunately, this is usually not the case. But we do expect to see some new kinds of expectations develop in the patient. (This is what Thomas French calls the activating force in the integrative function of the ego. It is not quite the same as the present writers' view of hope.)

Ordinarily we expect to institute special treatment devices. We could assume that these will *not* be applied, and make a prognostic estimate on that assumption. But usually prognosis implies that the therapeutic recommendations can and will be put into effect. Making this assumption, one has to review some of the dynamic factors, insofar as they are accessible to our knowledge, which determine or co-determine the presence and the trend of the illness.

Thus, considering first those forces or circumstances which seem to work *against* improvement, we ask ourselves such questions as these:

1. Are this patient's prospects for improvement pre-limited by unalterable factors such as organic defect, developmental lag, advanced age, progressive physical disease?
2. Are they impaired by conditions unlikely to be altered, such as irreparable loss, psychological rigidity, various physical diseases, actual guilt or realistic economic and other fears, legal entanglements?
3. Does the patient's life history indicate that his aggressive impulses are extremely difficult to deflect, modify or placate?
4. Is the patient's narcissism so extreme as to preclude capacity for object attachments? This usually occurs after an extremely severe psychological injury in infancy and tends to preclude effective therapeutic relationships.
5. Are the indirect satisfactions from the illness notably in excess of the price paid for them in pain, popularity, etc. (Is there motivation for therapy?)
6. Is there conscious acceptance of self-destructive intent? (This too relates to motivation for treatment.)

Many of these questions can be answered only on the basis of conjecture and indirect evidence. Improved accuracy in weighing them comes with experience. Opposing the foregoing negative forces are the forces and factors which seem to be on the side of recovery, working toward improvement or capable of being exploited in therapy. For example, one asks oneself:

1. How much does the patient's pain (anxiety, apprehensiveness, de-

pression, guilt feelings, excitement, shame) motivate him to seek a more favorable compromise? (This in a sense is the converse of point 5 listed in the negative forces.)

2. Opposed to the positive pain referred to in the foregoing question, how much does he sense painfully the loss of satisfactions?
3. Since a large factor in treatment depends on the patient's intelligence, how well endowed is he in this respect? How accessible to reason, re-education, counsel?
4. Does he show some propensity for acquiring and using transitional love objects—other patients, aides, nurses, physicians, others? (This is the converse of point 4 listed in the negative forces.)
5. Are there latent capacities for recreation, and if so, are they likely to be for narcissistic, libidinous or aggressive expressions?
6. If self-punition is a marked feature in his symptomatology, is it susceptible to the substitution of symbolic forms of penance or realistic restitution?
7. Is there evidence of undeveloped potentialities for creativity and healthy living?

(Items 3 through 7 imply the presence of intact areas of functioning which might be extended by and through treatment.)

8. Is the home situation or other "ultimate" environment to which the patient returns attractive to him?
9. Is the patient's temperament essentially optimistic or pessimistic? (*Cf.* Erikson's "basic trust-mistrust" concept.)

Such a balancing of positive as against negative forces is a more specific than general approximation of "ego strength" or "ego weakness"; the latter expressions come to be used as if the quality of strength were something special or specific which could be acquired or lost. This metaphor were better replaced, in our opinion, by an operational examination of ego functions such as we have outlined. The essence of the matter is that we weigh those factors which help the patient, or help us to help the patient, or help us to help the patient help himself, against those working in the opposite direction.

This weighing process together with the consideration of the trend of the present and previous illness will give us a basis for saying what we can expect from our efforts with this particular illness of this particular patient. Any prognostic statement must be expressed in terms of degrees of probability. It would belie the humility appropriate to science for it to be otherwise. No one actually knows about the future. We can only say what the trend seems to be, and the point we believe might be reached under available circumstances of treatment.

Psychiatrists usually take for granted what almost no one else assumes,

namely, that their patient can (and perhaps will) recover from his illness and be healthier than he ever was before. This happens only occasionally in physical illness, but it is a common experience in psychiatric practice. Sometimes its very failure to happen, the failure of the patient to preserve or believe in or make use of his latent potentialities, saddens or exasperates the psychiatrist. But sometimes it is the psychiatrist who does not perceive these latent powers.

Few cases can be described as definitely and completely hopeless. To be sure, many psychiatric patients progressively deteriorate until the illness terminates in death, and many more cases fluctuate uncertainly without achieving stabilized improvement. On the other hand, the great majority of patients with psychiatric illness recover. The reasons this sounds contradictory are, first, that one forgets the very high incidence of psychiatric illness and the probability that most of its victims are never seen by any physician; and secondly, one forgets that many patients with psychiatric illnesses, seen by physicians in and out of hospitals, get well so quickly that they are not ordinarily visualized as a part of the long standing psychiatric load. We believe, therefore, that the trend toward recovery is perennial. It is obvious that we assume this; if we did not, if we did not believe the outlook for our patients in general to be favorable, we would not be offering a treatment program. If we made diagnoses, it would be for diagnosis' sake. This is the state in which psychiatry languished for centuries. It is no longer that way.

Schedule for Diagnostic Summary of Case Study

The following outline summarizes, restates and documents details of the diagnostic concept and procedure described in the foregoing pages.

A. The Environment

1. The general environment of the patient's life adjustment (national, social, economic, geographic, etc.).
2. Characteristics of the more immediate environment (neighborhood and family).
3. Factors in the environment considered injurious, stressful, overstimulating, and the factors considered particularly supportive for this patient.
4. Significant injuries sustained by the environment from the patient, and its reactions thereto.

B. The Individual

1. Somatic structure, functions and reactions:
   a. Physical pathology or diagnosis (date, and use standard or approved nomenclature).
   b. Neurological pathology or diagnoses (date, and use standard or approved nomenclature).
2. Psychological structure, functions and reactions:
   a. Trait and typological designations; personality assets, conflict free areas and potentialities.
   b. Psychopathology (symptoms, syndromes, and inferred dynamic interpretations).
3. The disorganization (the disease-recovery process):
   a. Degree (mild, moderate, severe).
   b. Type (long standing, acute, episodic florid, recurrent, etc.).
   c. Trend (increasing, decreasing, rapid, slow, static, variable).
   d. Prognosis (balance sheet conclusions).

COGNITIVE CONTROL PRINCIPLES AND PERCEPTUAL BEHAVIOR*

RILEY W. GARDNER, PH.D.

Two major aims in this paper are: (1) to provide a brief summary of our previous studies of cognitive control principles and some of the theoretical considerations that have guided them; and (2) to exemplify our further work in this area by describing one of several current researches.

Brief Summary of Previous Studies

The first experimental studies of control principles done at The Menninger Foundation were designed to test the assumption that persons are characterized by enduring response dispositions that are expressed in a variety of perceptual behaviors and that can be described as "perceptual attitudes." Evidence of such consistent attitudes were found by George Klein, Philip Holzman, Herbert Schlesinger, and myself in several early studies. It soon appeared, however, that the consistencies observed in laboratory and clinical test situations reflected the operation of much broader principles of cognitive organization than those originally hypothesized. The study then shifted to a search for evidences of the operation of cognitive attitudes or system principles that may govern response to broad classes of adaptive situations.

Among the cognitive system principles explored thus far are the following:

1. The *Leveling-Sharpening* principle, which is relevant to individual consistencies in memory organization as a function of assimilation between new stimuli and memories of stimuli experienced previously.[1-3]
2. A *Focusing* or *Scanning* principle, relevant to the extensity of spontaneous attention deployment in a variety of situations.[4,5]
3. An *Equivalence Range* principle, relevant to judgmental preferences concerning similarity and difference.[6,7]
4. A principle of *Flexible and Constricted Control*, relevant to response in the face of perceived incongruity. In a model pioneer study of the effects of cognitive control principles upon the expression of needs,

* Based on a talk presented to the symposium on perception at a joint meeting of the Kansas and the Southwestern Psychological Associations, April 16, 1959. The current work described is supported by a research grant (M-2454) from the National Institutes of Health, Public Health Service.

Klein[8] showed how this control principle *modulates* the effects of thirst upon adaptive behaviors.

5. A principle of *Tolerance for Unrealistic Experiences,* relevant to response in situations that defy or abrogate one's usual assumptions concerning external reality. This principle was demonstrated both when the experimenter manipulated the stimulus conditions and when the subject shaped relatively ambiguous stimuli in greater or lesser conformance to his personal motives and their cognitive representatives.[9,10]

Each of these principles has now been explored in several studies. In some recent work[11-13] we have focused upon *relations* among these principles, asking such questions as: How many cognitive control principles are needed to account for the cognitive consistencies observed thus far? In general, our findings offered rather strong evidence of the independence of the system principles we have formulated. To know that a person is an extreme leveler in response to sequential stimulation predicts little or nothing about his equivalence range preferences, the extensity of his spontaneous scanning activities, or his response to perceived incongruity. Several of our studies have included key measures of the individual consistencies demonstrated so clearly by Witkin[14] and his co-workers. Our results have shown the validity of their observations and extended the applicability of Field-Dependence, or *Field-Articulation,* which can be conceived of as an additional cognitive system principle.

Some of these cognitive system principles obviously have implications for performances in so-called intelligence tests. One of our largest studies[13] has focused upon the relevance of control principles to performance in tests previously assumed to tap specific "intellectual abilities." Our rich harvest of positive results indicates that some of these abilities may actually represent the operation of the broader cognitive organizing principles we have investigated.

Theoretical Background

Psychoanalytic theory has provided the general background for our studies of cognitive control principles. We think of these principles as emergent, secondary-process *structures* of the kind first referred to by Freud[15] in 1895 in his Project for a Scientific Psychology and recently given intensive theoretical consideration by Hartmann, Rapaport, and others.[16-22] We think of our explorations as yielding rather rich evidence of the operation of ego structures in adaptive behavior. As Rapaport has pointed out, this concept of structure is an essential aspect of the ego-

psychological point of view which is not shared by a number of other current theories relevant to cognitive behaviors.

The cognitive control principles we have formulated are cousins to the ego structures conceived of earlier under the general rubric of defense. Although we believe that cognitive system principles and defenses imply different antecedents, we are intensely interested in relationships between them.[8,23] Results of an earlier study,[11] recently replicated by Holzman and myself,[3] suggest that the *Leveling-Sharpening* system principle may be rooted in basic attributes of the perceptual and memory apparatuses (part of what Hartmann has called the relatively "conflict-free" sphere of the ego). There is evidence that this principle of cognitive organization may provide a necessary but insufficient condition for the developmental emergence of repression as a primary defense. We have evidence, too, that the *Scanning* principle, which I shall describe later, may be linked to the defense of isolation, possibly in a similar fashion.

Thus, the emergent ego structures leading to the relatively consistent and enduring response dispositions we have observed are assumed to perform mediating functions. Like the defense mechanisms, they are presumed to channel or shape the expression of drives under particular adaptive conditions.

A Current Research

One of our current researches provides new evidence that persons are consistently different in their patterns of spontaneous attention deployment (scanning). That a control principle governs the extensity of spontaneous attention deployment was originally postulated on the basis of results obtained in three previous studies.[4,5,11]

Jean Piaget postulated that extensity of scanning is related to performances in adaptive situations requiring judgments of the magnitudes of stimuli. He and his associates performed more than 30 experiments to show that experienced magnitude is a function of attention deployment.[25,26] Although Piaget did not focus on individual differences, he provided a conceptual framework for relating a control principle to scanning behaviors. Our use of this framework has led to some unusual predictions concerning individual differences in scanning. According to Piaget, the perceptual apparatus is characterized by innate distortion of external reality such that the magnitudes of stimuli in the *center* of the attentional field are overestimated. In the course of adaptation, persons

learn to scan stimulus complexes in certain ways in order to overcome these innate distortions of external reality. Piaget referred to this learned scanning behavior as perceptual activity, which he took great pains to distinguish from perception itself. To put it briefly, by such motor activities as eye movements, the organism gradually learns to overcome the distorting centration effects typical of the perceptual apparatus. This development of *decentration* leads to improved coordination with external reality. Thus, the infant shows maximal centration, the adult relatively refined decentration, which allows more accurate evaluation of objects in the external world. A basic assumption that guided Piaget in his formulation of a *general* law governing scanning behaviors was that perceptual activity (rather than perception itself) is linked to sensorimotor intelligence, and through it to the emergent schemata of organization characteristic of higher levels of cognitive functioning.

Let us focus here on the relevance of Piaget's ideas to performances in simple size estimation tests, such as we used in our early experiments. According to Piaget, most subjects tend to overestimate standard (rather than the variable) stimuli because they tend to anchor attention upon them.

In one of our size estimation tests, the subject is asked to adjust a variable circle of light until it appears equal in size to a standard disk. To compare them he must move his eyes. In keeping with Piaget's general formulation, almost all our subjects overestimate the size of the standard stimuli. Of particular interest is our repeated finding that persons differ remarkably from each other in this test and that these differences are highly reliable.

Subjects also tend to overestimate standard stimuli in a second form of size estimation test. The key difference between this test and the first one is that the subject must turn his head in order to compare the stimuli. Following Piaget's idea, the subject who scans minimally anchors attention largely upon the standard disk and will maximally overestimate its size. A subject who deploys attention in a more balanced, and hence more adaptively adequate, fashion should overestimate the standard stimulus less. The latter subject should thus make a more accurate size judgment.

We believed that performances in these size estimation tests were providing us with a vignette of enduring individual differences in the patterning of spontaneous attention deployment. If so, these scanning patterns should also appear in completely independent situations. Results

of an earlier experiment[27] suggested that this may indeed be true.* Our 80 subjects were given the two size estimation tests just described. They were then asked to equate the lengths of the two lines in one form of the Inverted-*T* Illusion (the overestimation of vertical lines, when compared with horizontal lines). In our procedure the room was dark, and the subject could see nothing but the two white lines producing the illusion.

We found strong *positive* relationships between overestimations of the standard stimuli in the two size estimation tests referred to above. We found significant *negative* relationships between overestimations of the standard stimuli in the size estimation tests and the degree of illusion experienced with an inverted *T*. Except for Piaget's conception of centration effects in scanning behaviors, this result might seem incomprehensible. But these negative relationships can be explained by the arrangement in the inverted *T* of standard and comparison lines, which is such that subjects who greatly overestimate the standard stimulus *appear* to have minimal illusion effects. That is, the illusion effect and the "error of the standard" work in opposite directions. Thus, we tentatively presumed that the negative correlation between illusion effects and performances in the two size estimation tests represented consistent differences in overestimation of standard stimuli in both situations.

Our current studies of the *Scanning* principle are designed to test this assumption. We are using the size estimation tests in relation to *two* forms of the Inverted-*T* Illusion. In Form A, the standard line is horizontal, as in the earlier experiment, so that overestimation of the standard line works against the illusion effect. In Form B, the standard line is vertical. In this form of the illusion, overestimation of the standard line presumably supplements the illusion effect.

We predicted negative correlations between overestimation of standard stimuli in the size estimation tests and the traditional "illusion-effect" scores for Form A. We predicted positive correlations between overestimation of standard stimuli in the size estimation tests and "illusion-effect" scores for Form B. We predicted strong positive correlations between overestimation of standard stimuli in the size estimation tests and the composite score representing overestimation of standard stimuli in the two forms of the Inverted-*T* Illusion. The illusion effect itself has been removed from this composite score.

* This experiment was done under Research Grant M-1182 from the National Institutes of Health, Public Health Service.

Thus far we have tested two separate groups of subjects with these four procedures. Except for a slight improvement in the lighting of the illusion figures for the second group, the conditions were identical.

The correlational results for the first group were in the predicted directions and slightly higher than we anticipated (see Table I). It would thus appear that certain subjects may habitually limit attention deployment primarily to "anchoring" objects in the stimulus field, at least in this general class of situations. Certain other subjects seem consistently to deploy attention in more evenly balanced fashion.

TABLE I

RANK CORRELATIONS FOR FIRST GROUP (N = 24)

OVERESTIMATION OF STANDARD	INVERTED-T ILLUSION				SIZE ESTIMATION IA
	"Illusion Effect" Traditional Measures		Overestimation of Standard	Actual Illusion Effect	Overestimation of Standard
	Form A	Form B	(Composite)	(Composite)	
Size Estimation IA	–.16	.47°	.58°°	.10	
Size Estimation IB	–.37°	.43°	.63°°	–.10	.55°°

° $p < .05$, one-tailed test.
°° $p < .01$, one-tailed test.

Results for the second group (see Table II) were also in accord with our hypothesis. They followed the pattern of results in the first group exactly, and were of the same general order.

TABLE II

RANK CORRELATIONS FOR SECOND GROUP (N = 26)

OVERESTIMATION OF STANDARD	INVERTED-T ILLUSION				SIZE ESTIMATION IA
	"Illusion Effect" Traditional Measures		Overestimation of Standard	Actual Illusion Effect	Overestimation of Standard
	Form A	Form B	(Composite)	(Composite)	
Size Estimation IA	–.33°	.45°	.53°°	.28	
Size Estimation IB	–.15	.39°	.40°	.24	.50°°

° $p < .05$, one-tailed test.
°° $p < .01$, one-tailed test.

In an attempt to extend our understanding of the cognitive organizing principle that may govern these consistent scanning behaviors, we are beginning an experiment that will include a variety of new situations, such as tests of incidental learning and noticing. We have also begun electronic recording of eye-movements in our size estimation tests in an attempt to verify the hypothesis that the experience of relative size in these tests is a function of the extensity of scanning.

Perhaps even more important for our general approach to cognitive theory, we plan to pursue indications in two of our earlier studies[4,11] that extensity of scanning may be related to the strength of the defense mechanism of isolation. We hope that our future studies of individual differences in extensity of scanning will help clarify this specific relationship. But at the same time we hope for something more. We hope for bits of knowledge that will improve our general understanding of relations between the cognitive structures that guide adaptive behaviors and the defensive structures that serve in the resolution of conflict.

BIBLIOGRAPHY

1. HOLZMAN, P. S. and KLEIN, G. S.: Cognitive System-Principles of Leveling and Sharpening: Individual Differences in Assimilation Effects in Visual Time-Error. *J. Psychol.* 37:105–122, 1954.
2. ————: The Relation of Assimilation Tendencies in Visual, Auditory, and Kinesthetic Time-Error to Cognitive Attitudes of Leveling and Sharpening. *J. Pers.* 22:375–394, 1954.
3. ———— and GARDNER, R. W.: Leveling and Repression. *J. Abnorm. Soc. Psychol.* 59:151–155, 1959.
4. SCHLESINGER, H. J.: Cognitive Attitudes in Relation to Susceptibility to Interference. *J. Pers.* 22:354–374, 1954.
5. HOLZMAN, P. S.: (Ab.) Focussing: A Style of Reality Contact. *Am. Psychologist* 12:388, 1957.
6. GARDNER, R. W.: Cognitive Styles in Categorizing Behavior. *J. Pers.* 22:214–233, 1953.
7. SLOANE, H. N.: The Generality and Construct Validity of Equivalence Range. Unpublished doctoral dissertation, Penn. State University, 1959.
8. KLEIN, G. S.: Need and Regulation. In *Nebraska Symposium on Motivation*, M. R. Jones, ed. Lincoln, University of Nebraska, 1954, pp. 224–274.
9. ———— and SCHLESINGER, H. J.: Perceptual Attitudes Toward Instability: I. Prediction of Apparent Movement Experiences from Rorschach Responses. *J. Pers.* 19:289–302, 1951.
10. ———— and others: Tolerance for Unrealistic Experiences: A Generality Study. (To be published)
11. GARDNER, R. W. and others: *Explorations of Consistencies in Cognitive Behavior.* (To be published, *Psychological Issues*)
12. ———— and others: (Ab.) Personality Organization in Cognitive Attitudes and Intellectual Abilities. *Am. Psychologist* 13:336, 1958.
13. ———— and others: *Personality Organization in Cognition.* (To be published)
14. WITKIN, H. A. and others: *Personality Through Perception.* New York, Harper, 1954.

15. FREUD, SIGMUND: Project for a Scientific Psychology. In *The Origins of Psychoanalysis*, Marie Bonaparte, Anna Freud, and Ernst Kris, eds. New York, Basic Books, 1954, pp. 355–445.
16. HARTMANN, HEINZ: *Ego Psychology and the Problem of Adaptation*. Trans. by David Rapaport. J. Amer. Psa. Assn. Monograph Series, No. 1. New York, International Universities, 1958.
17. ———: Comments on the Psychoanalytic Theory of the Ego. *Psa. Study of the Child* 5:74–96, 1950.
18. ———: The Development of the Ego Concept in Freud's Work. *Int. J. Psa.* 37:425–438, 1956.
19. ——— and others: Comments on the Formation of Psychic Structure. *Psa. Study of the Child* 2:11–38, 1946.
20. RAPAPORT, DAVID: The Conceptual Model of Psychoanalysis. *J. Pers.* 20:56–81, 1951.
21. ———: Cognitive Structures. In *Contemporary Approaches to Cognition: The Colorado Symposium*. Cambridge, Harvard University, 1957, pp. 157–200.
22. ———: *Organization and Pathology of Thought*. New York, Columbia University, 1951, pp. 689–730.
23. HOLZMAN, P. S. and KLEIN, G. S.: Motive and Style in Reality Contact. *Bull. Menninger Clin.* 20:181–191, 1956.
24. PIAGET, JEAN: *The Psychology of Intelligence*. New York, Harcourt, Brace, 1950, pp. 53–86.
25. ——— and others: Note on the Law of the Temporal Maximum of Some Optico-Geometric Illusions. *Am. J. Psychol.* 71:277–282, 1958.
26. ——— and others: Recherches sur le Développement des Perceptions. Recherches I à XXXII. *Arch. de Psychol.*, 1942–1956.
27. GARDNER, R. W.: Cognitive Controls and Visual Illusions. (To be published)

READING NOTES

The Menninger School of Psychiatry is acquiring new company. On September 14 the New York School of Psychiatry was opened, according to an announcement by Commissioner Paul H. Hoch. It offers a three-year training program, is quartered in the medical-surgical building of Manhattan State Hospital, and utilizes the staffs of Brooklyn, Creedmoor, Kings Park, Pilgrim and Central Islip state hospitals and Willowbrook State School.

* * * *

The idea back of *Critical Incidents in Psychotherapy* (Prentice-Hall, 1959) is superb. In psychiatry just as in general medicine there frequently arise critical—often dramatic—moments in which procedural decisions have to be made instantly. The safety of the patient, the safety of the therapist, the furtherance and even the continuance of treatment may be threatened.

In this book edited by Stanley W. Standal and Raymond J. Corsini, two score of such crises are presented that occur in psychotherapeutic practices. First a brief account of a case is given, then a description of the incident including what was actually done, and then a commentary by three or four members of the contributing staff of thirty members. This contributing staff was drawn from university departments of anthropology, psychology, communications, psychiatry and sociology; its heterogeneity considerably weakens the value of the comments, which tend to cancel one another out where they do not distract.

* * * *

On almost every one of the 300 pages of *Sexual Relation in Christian Thought* (Harper, 1959), a careful examination of the attitude of Christian writers, theologians and communicants, there are references and footnotes. It is written by Derrick Sherwin Bailey with that degree of scholarly carefulness and thoroughness.

* * * *

In *Patients, Physicians and Illness* (Free Press, 1958), a carefully arranged collection of essays on various aspects of the practice of medicine, many competent experts contribute to the discussion of sociological, psychological and economic factors. If the compiler and editor, E. Gartly Jaco, himself pioneering in the teaching of medical sociology, had done no more than to offer us the five essays in the section on "Becoming a Physician" he would have earned our gratitude. And there are 50 others—

many of them excellent and extending to problems of nursing, osteopathy, facial deformities and other unexpected but rewarding topics.

* * * *

About once a week I am reminded through the reading of some editorial, some article by my friend Joe Krutch, or even a new book like that of E. W. Martin on *The Case Against Hunting* (London, Dobson, 1959), that I am not the only fanatic who regards the joyous scramble to maim or murder inoffensive wild animals as either a kind of unrecognized madness or a vice left over from our savagery days, corrected only with painful slowness by the gradual spread of education and civilization. It is neatly scotomatized by most religions professing mercy and kindness.

* * * *

Dr. S. I. Hayakawa has skillfully selected about 30 essays on the general theme of communication and semantics from the past five years of the too little known journal, *ETC. Our Language and Our World* (Harper, 1959) is the second such collection, it seems, and if the first one is half as good as this one, I would recommend that the two be purchased together. The penetrating and sometimes scathing essay by Jay Haley on "The Art of Psychoanalysis" is required reading in my Technique course; it makes an analyst uncomfortable but in a way that is good for us. Indeed, semantic analyses tend to make all of us uncomfortable because they oblige us to re-think or re-word things we *thought* were settled and clear.

* * * *

"The greatest intellectual difficulty of our time resides in the inability of many people, often brilliant and extremely well trained and capable, to distinguish the subtle but absolutely essential difference between concepts, words that describe concepts, and things." (*A.M.A. Archives of Internal Medicine* 98:536, October 1956)

* * * *

Recently one of the most beautiful old trees at the Foundation was struck by lightning. Lightning is among the most common causes of destructive fires in the United States. At any given moment there are over 1,800 storms in process in the world, over 44,000 thunderstorms every day. During each second of the day and night there are 100 flashes of lightning somewhere. Somewhere in the world several people are killed by lightning daily.

Lightning rods are known to be protective. (One of the great American

discoveries.) *Why, then, have we abandoned lightning rod protection of our houses and trees?* (See "Prejudice Against the Introduction of Lightning Rods" by Professor I. Bernard Cohen of Harvard in the *Journal of the Franklin Institute* for May 1952.)

* * * *

The Harvard Medical Alumni Bulletin, July issue, presents an article and an editorial on the strange phenomenon of Wilhelm Reich. An article about him in our *Bulletin* (1948) is cited. There are a few pictures taken in the area in Maine where Reich had his colony. A strange record: excellent medical training, excellent psychoanalytic training and teaching, political aberrancies, sexual preoccupation, phantastic theorizing, neologisms, stubborn defiance of the law, federal prison, death.

* * * *

Whenever that feeling comes across one of us about predicting how some one is going to turn out after having cast a professional eye on him for an hour or two, we should refer ourselves to a recently published 3-volume work entitled *The Ineffective Soldier* (Columbia University, 1959). This study is reviewed by one of its producers, Eli Ginzberg, Director of the Conservation of Human Resources project, in the *American Journal of Psychiatry* for August. To summarize this beautiful summary in a few sentences: "Don't be so presumptuous as to predict outcome on the basis of an interview. You will be more apt to be correct if you base your prediction simply on the patient's educational background, *i.e.*, the more schooling, the more effectiveness."

This sounds hard on us psychiatrists, but it isn't. It is just proof of what we said, some of us, 18 years ago: "You can't do psychiatric screening that way." But they said we must, and we tried.

* * * *

Some forward looking citizens are trying to establish our 30th National Park. Not the one in Kansas, which will probably be the 31st, although the first one in this state; but one on the Utah-Colorado border called Dinosaur National Park. It was almost destroyed by some ruthless water storage plans about which we petitioned Congress year after year some time back. The dinosaur, as you recall, lived during a span of over 50 million years which is a lot longer than man has made it, so far. Large quantities of them seem to have been destroyed in the vicinity of canyons running out from the bed of the Colorado River, and discovered by us less than 100 years ago. People used to haul the bones away in boxes and

wagons. That has now been stopped through the alertness of some San Francisco nature lovers who established and then enlarged a so-called National Monument in the area. The Council of Conservationists of Short Hills, New Jersey, has taken the lead in promoting it to National Park status and they have my support. I hope they get yours.

* * * *

Only five of the 50 states have ratios of less than 10,000 persons per psychiatrist. Kansas is one of the five according to the August *Fact Sheet* of the American Psychiatric Association and the National Association for Mental Health.

The psychiatrist-population ratio was improved during the 1956–1959 period by three states to an extent of more than 29 per cent. These are Kansas, 54 per cent; Rhode Island, 33 per cent; Colorado 29.5 per cent.

The percentage increase in APA membership in Kansas during this period was 56 per cent; the next closest percentage was that of Rhode Island, which was 40 per cent. Illinois was 16 per cent and the national average was 20 per cent.

But here's the bad news: Kansas is now nearing the bottom of the list of states in salaries paid to professional workers. This spells disaster!

* * * *

It seems like many years ago that I devoted one of my Saturday colloquiums in the Menninger School of Psychiatry to a discussion of the golden ratio, the golden rectangles, golden triangles and the like. There is an enormous literature on this subject which Martin Gardner summarized neatly and painlessly in the *Scientific American* for August.

Phi is the name given for the golden ratio. The other familiar irrational number is pi. Pi is 3.14159; phi is 1.61803. (The ratio is 1:161803.) But one of the fascinating details about phi is the annoying fact that its reciprocal is .61803!

If one cuts off a square from one end of a golden rectangle, the remaining figure will be a smaller golden rectangle, and this can be continued indefinitely tracing a logarithmic spiral. Biological growth often follows this pattern, *e.g.*, the chambered nautilus.

This spiral is represented arithmetically by the Fibonacci series. This fascinates me; try it yourself. Take any two numbers (but you had better begin small). Add them and set this sum figure down as a third item in the series (for example, if you thought of 9 and 3, put down 9, 3, 12). Now add the last two items in your series and put that figure down as the

next item (in this instance it would be 15). Now again add the last two numbers in the series, and put that number down (here 27).

Do this five times or ten times or as many times as you like. When you are ready to stop, let me know. Tell me the last number you put down and I will tell you the one which precedes it. I will simply multiply it by .618 (or divide it by 1.618)! Phi again! Mind you, I didn't tell you what two numbers to start with or how long to keep adding!

But of course the golden ratio is of much more practical importance than this—as every artist, architect and builder knows.

There are some more recondite articles than this in the August *Scientific American*, but to me the most interesting was the account of the Megapodiidae, a family of birds who use heat from the sun or from fermenting (decaying) vegetable matter to incubate their eggs, and in some marvelous way, the birds themselves operate the thermostatic controls.

And then there is exciting news of a reflector telescope under construction in the mountains of West Virginia which will be 600 feet in diameter and have a range of 38 billion light-years, which is nineteen times that of the Palomar telescope.

K.A.M.

BOOK NOTICES

Games and Decisions. By R. Duncan Luce and Howard Raiffa. $8.75. Pp. 509. New York, John Wiley, 1957.

Games serve as prototypes for a discussion of conflicts of interest, decision making, risk taking, probability of outcome, strategy and many related concepts. This book is planned as an introduction and a guide to the formidable literature on the subject, written especially for social scientists with mathematical sophistication. (Paul W. Pruyser, Ph.D.)

Child-Centered Group Guidance of Parents. By S. R. Slavson. $5. Pp. 333. New York, International Universities, 1958.

The practice of group methods and techniques is still comparatively little used by workers in the field of child guidance. S. R. Slavson has been a pioneer and enthusiastic advocate of the group process. In this volume, he illustrates the richness and fascination of work with groups of parents who seek further understanding and education of some of the problems which bewilder them in regard to their children. These are relatively healthy parents and the focus is "child-centered." For this reason the process is called "group guidance." An excellent feature of the book is the clear, lucid recording of the group interaction which permits one's own formulation and conclusions as to the limitations and values of this method of help. (Arthur Mandelbaum)

Personal, Impersonal, and Interpersonal Relations. By Genevieve Burton. $2.75. Pp. 230. New York, Springer, 1958.

The author presents a sensitive portrayal of the interaction between the nurse and patient in a general hospital. The fundamentals of emotional development are discussed to help the nurse see and care for the patient as a whole person who is experiencing both emotional and physical stress. The author illustrates clearly the need for the nurse to understand herself and to recognize how her own feelings affect the patient. Since the book is primarily a guide for the young nurse with little experience, my impression is that the author is being overly ambitious in seeing the nurse as a counselor. For the more mature nurse, the material presented is very worthwhile. (Pauline Foley, R.N.)

ESP and Personality Patterns. By Gertrude R. Schmeidler and R. A. McConnell. $4. Pp. 136. New Haven, Yale University, 1958.

A series of well-controlled experiments covering twelve years and involving over thirteen hundred subjects is reported here. A positive, "believing," attitude in Extra Sensory Perception phenomena proves to have a facilitating relation to success on card guessing experiments. Success in ESP also seems to be related to readiness to accept new experience and to lack of rigidity in perception as assessed by the Rorschach test. A small group of patients with cerebral concussion attained also significantly high ESP scores, which is possibly due to their more passively receptive attitude toward environmental stimuli. Godfather to the experiments was Gardner Murphy who also contributed a preface to the book. (Paul W. Pruyser, Ph.D.)

INDEX TO VOLUME 23

Authors

Subjects