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PSYCHOLOGY OF PERSONALITY

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PSYCHOLOGY OF PERSONALITY

by ROSS STAGNER
Professor of Psychology
Dartmouth College

SECOND EDITION

NEW YORK TORONTO LONDON
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1948

PSYCHOLOGY OF PERSONALITY

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TO

M. W. S.

PREFACE TO THE SECOND EDITION

This revision was begun in 1941, but was interrupted in December of that year. It was resumed late in 1945 and completed in 1947. During the intervening years, millions of personalities were affected, some favorably, others adversely, by the great social upheaval that characterized the Second World War. As a result of the author's experiences during this period, he holds with even greater vigor to the view set forth in the first edition of this book, that the problems of the individual personality and the problems of the social order cannot realistically be separated.

During the preparation of this edition, the literature dealing with normal personalities was conscientiously reviewed through 1946. Space limitations, however, have prevented citation of many interesting contributions. As a partial solution to the resulting conflict, the author has listed a substantial number of research items in the bibliography, with page references indicating the topic to which they are relevant, even though they are not quoted. It is hoped that this device will be of some value to teachers and advanced students.

The text has been completely rewritten in order that full advantage might be taken of recent developments in the fields of perception, projective testing, and experimental studies of personality. The concept of frame of reference has been elevated to a key position in the theoretical discussion of personality—although here, as in the first edition, the emphasis has fallen on giving the student an adequate picture of the field, not a tightly organized theoretical interpretation. There has been a slight increase in the space devoted to individual case material.

The author is indebted to the many teachers who used the first edition for their suggestions and criticisms; to the publishers who have granted permission for reproduction of copyrighted materials; and especially to Dr. Irving E. Bender, Professor of Psychology at Dartmouth College, for a patient and thoughtful commentary on most of the manuscript. His suggestions have led to many changes tending toward clarity and accuracy of expression. For such errors of omission or commission as may be discovered, I am, of course, solely responsible.

ROSS STAGNER

HANOVER, N. H.
February, 1948

PREFACE TO THE FIRST EDITION

The material which may legitimately be included in a treatment of the psychology of personality has grown too large to be brought within the compass of a single volume of reasonable size. In selecting from this material, I have tried to be guided by certain very definite principles.

First of all, I have deliberately avoided wherever possible any reference to abnormal personalities. Except in those instances where a pathological case would point a moral and adorn a tale, I have preferred no case at all to citing cases of neurotic and psychotic patients. This policy was followed not because of any deep-seated conditionings or complexes on my part, but because of my feeling that too many volumes in the field of personality treat definitely of the *abnormal* personality. If this book has any merit at all, I want it to be as a contribution to the study of the normal, everyday personality.

My reason is quite simple. In teaching courses, whether in personality as such or in educational, general, and applied psychology, I have frequently been asked for readings on "normal" personalities. My students have complained that the material contained in their reading lists had too much of the pathological flavor about it. I hope, therefore, that this book will fill something of the need they have expressed.

Second, I have in almost all cases eliminated consideration of therapeutic techniques, suggestions for self-improvement, hints to parents, and other aspects of what might be considered "the applied psychology of personality." Occasionally a point on child care in home or school has seemed worth including, either because it rounded off a discussion or because I thought it had not received sufficient stress in volumes dealing with these specific topics. On the other hand, I have tried to construct a scientific approach to personality which would, as it were, legitimize those techniques which have been found successful in dealing with personalities, by showing that the development of personality occurs in such a way that these methods may be expected to succeed.

In this connection I have attempted to develop a coherent, systematic point of view regarding the development of traits. I accepted, in doing so, the danger of making the book too difficult for the very readers for whom I had planned it, students with a general course in psychology and

laymen with some groundwork in the biological and social sciences. I grant the criticism of my colleagues who have read the manuscript, that such material probably has its legitimate place in a more advanced course. On the other hand, I know of no textbook even in the higher psychological levels which presents a systematic set of concepts on which to hang the framework of trait psychology, measurement procedures, etc. To present the results of questionnaire tests and similar techniques with no theoretical justification seemed to me an entirely unsatisfactory solution.

Third, I have tried to make personality a set of concrete, identifiable responses of a behaving organism, not a mysterious emergent from some place out of something. In other words, I have preferred to lean upon visceral responses and gestural activities rather than make vague assumptions about "floating affects" or "unconscious ideas." This, despite the fact that I recognize the importance of conscious states, and do not consider myself a (Watsonian) behaviorist.

Finally, my intention has at all times been to make only such statements as have a direct application to some specific human being. Particularly in describing the effects of the social milieu, it is easy to lapse into generalizations which partake of the "group mind" fallacy. The treatment of economic conditions, for example, as they relate to personality (among the very few psychologists who even mention them) easily reduces to such general statements as "Mass production lowers workers to the status of machines." Plural statements have no real place in the psychology of personality. The object of our study is a single human being. He reacts to, and reflects, the presence and characteristics of other humans. But a collective personality has no proper place in this discussion. If our statements have meaning, they must always be reducible to the unit personality.

This stricture is especially true when we come to consider those very large aspects of the social environment which I have ventured to discuss in the concluding chapters of this book. Social systems, cultures, etc., have psychological reality as, and only as, habits and beliefs of specific human beings. Dr. Maslow, in the very excellent discussion of "Personality and Patterns of Culture" (Chap. XXII) which he has contributed to this volume, shows that it is possible to treat even anthropological material in this way. The various characteristics of culture must ultimately be defined in terms of the psychology of the individual. Capitalism, for example, may be a legitimate abstraction for sociology or economics. For psychology, I feel that it can be only a system of values. The source of these values may lie in objective conditions, physical,

sociological and economic. But these values, as values, must be conceived as "states of mind," implicit processes or what not, within a single person. As such, they are legitimate material for the student of personality.

Further, I feel that I need not apologize for my excursion into the problems of social reform in Chap. XXIII. For years psychologists have been claiming that their discipline represented the basis of the social sciences, and have asserted that errors in the interpretation of group behavior might have been avoided by a due consideration of psychological realities. Despite these assertions, psychological treatises in general ignored socio-economic problems until the depression made socio-economic conditions matters of personal concern to psychologists! I believe that psychology does have something to contribute to a correct solution of social problems, and it is in this spirit that I offer the deductions from personality to social value in that chapter. In this respect the Society for the Psychological Study of Social Issues may help in making good the claim of psychology to be the basis for all social science.

At the end of such a long task as this has been, I have many debts to acknowledge. Large parts of the book are composed of material gathered during the year 1932-1933 when I held a Social Science Research Council fellowship at the University of Wisconsin. Dr. V. A. C. Henmon gave me a great deal of assistance at that time. Since the actual task of writing began, I have profited from suggestions from Drs. Gordon Allport, E. S. Conklin, J. P. Guilford, Gardner Murphy and Maurice Krout, although I take all responsibility for material included or omitted. I should also like to acknowledge the aid of Dean Howard R. Evans of the University of Akron, who has in many ways facilitated the completion of this book.

I owe a very special debt to Dr. A. H. Maslow of Brooklyn College, who has very kindly contributed an entire chapter dealing with the applicability of anthropological concepts to the study of personality.

The publishers of various books and journals from which I have had occasion to quote have been very kind in granting permission to use material. The appropriate acknowledgments are given in connection with the various quotations.

ROSS STAGNER

AKRON, OHIO
August, 1937

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SECTION I
INTRODUCTION

CHAPTER I
THE SCIENTIFIC STUDY OF PERSONALITY

Definitions of Personality

Much of science consists of a search for adequate definitions. This is necessary not merely because man is generally happier when he has a neat system for classifying his ideas; increasing precision of definitions frequently results in focusing research more sharply and revealing important truths which had previously been ignored.

The problem of definition in psychology is extraordinarily complicated. Although the subject matter of psychology is familiar to us all, being the very tissue of daily experience, our thinking about psychological problems is, on the whole, vague. Words which have acquired confused and contradictory meanings in popular usage are carried over into scientific contexts, and there is a felt compulsion to make the precise definition conform as nearly as possible to one or all of these popular meanings. In many respects it would be preferable to invent a whole new vocabulary for psychological functions, or to use abstract symbols, as for the most part has happened in the physical and biological sciences. On the other hand, the usefulness of scientific psychology would be greatly reduced by this procedure, as the layman would be unable to pick up and use the products of research reported in the new terms.

Rather than seek to invent new terms and try to impose them upon the established content of psychology, we have elected to impose rigid definitions upon popular concepts. This being the case, the student should be prepared for considerable divergence between his established usage and the scientific interpretation. As more precise delineation of concepts shows the inaccuracy of common ideas, he may even have to give up some of his established beliefs. It will help if we remember at all times that

"common sense" is not much better as a guide to psychology than as a means of predicting the weather.

Popular Views of Personality.—There are a number of popular "definitions" of personality, in the sense that there are several different meanings attached to the word as it is used conversationally. Perhaps the commonest of these may be reduced to the formula, "personality is your effect upon other people." When one hears it said that "Miss Smith has a lot of personality," he knows that people who meet Miss Smith do not forget her easily. She has a high stimulus value.

Another popular view of personality identifies it with the characteristic of aggressiveness. "Jimmy has a weak personality" is interpreted to mean that he is easily imposed upon or that he is lacking in forcefulness. This tendency to identify personalities in terms of a single characteristic is, of course, a common feature of unscientific thinking.

"Personality" is also used colloquially to imply personal attractiveness, the ability to withstand hardships ("character" is commoner here), and other specific qualities. Although occasionally it is used to identify a general integration of responses, an individual style of life, or a unique point of view, such sophisticated interpretations are relatively rare.

Some Scientific Definitions.—The scientific conception of personality has been worked out to some extent by trial and error. It may be helpful to the student if we summarize briefly some of the meanings attached to this term by earlier psychologists. Since these definitions show a trend in thinking, following them may quickly orient the student to the value of the final definition which will be the keynote of this book.

Kempf (1918) [1] has defined personality as "the habitual mode of adjustment which the organism effects between its own egocentric drives and the exigencies of the environment." As phrased, this would include practically all of human behavior, since the vast majority of our responses do consist of just such habitual ways of adjusting.

According to Morton Prince (1924), "personality is the sum total of all the biological innate dispositions, impulses, tendencies, appetites, and instincts of the individual, and the acquired dispositions and tendencies." This definition places a potentially useful emphasis on the *inner* aspect of personality. Like Kempf's, however, it seems to cover virtually all of psychology, rather than to delimit a particular field.

Floyd Allport (1924) states that "personality traits may be considered as so many important dimensions in which people may be found to differ."

[1] Bibliographical references will be identified by inserting the publication date after the author's name. The complete reference is given in the bibliography at the end of the volume.

This seems much too inclusive. For example, it includes physical dimensions, which are only indirectly of importance for personality. Elsewhere he offers a more useful formulation, "personality is the individual's characteristic reactions to social stimuli and the quality of his adaptation to the social features of his environment."

Watson (1924) has called attention to the fact that character is part of personality. He says, "Personality includes not only these (character-conventional) reactions, but also the more individual personal adjustments and capacities as well as their life history. Popularly speaking, we would say that a liar and a profligate had no character, but he may have an exceedingly interesting personality."

Symonds (1928) has defined personality as "the portrait or landscape of the organism working together in all its phases," and May (1929) speaks of "the social stimulus value of the individual."

Definitions in Terms of Stimulus and of Response.—If we now examine these definitions and compare them with some examples from popular usage, we find a fairly sharp differentiation into two groups: those which consider personality in terms of its *stimulus value* (the effect one has on others) and those that consider it in terms of *responses* (what the person actually does). There is no necessary contradiction between the two. John's stimulus value for others is necessarily a function of John's behavior. There are, however, important differences between the two, and one or both may be found unsuitable for a sound scientific approach.

Personality as Stimulus.—Not only the man in the street, but also many psychologists, would define personality in terms of stimulus value. This is a natural consequence of everyday situations in which the concept is particularly useful, such as picking prospective employees, describing friends, or grading school children. Applicants for jobs are often chosen on the basis of their "personality" as it appears to the personnel interviewer; and this is justifiable, at least in the sense that an applicant who impresses the interviewer unpleasantly might affect customers similarly.

An attempt to use scientifically a definition of personality as stimulus leads to immediate difficulty. This is especially true if we are looking for increased logical precision and quantitative measurements of personality traits. Rigid application of this definition creates the bizarre situation in which each individual has virtually an unlimited number of personalities—one for each of his acquaintances, because he has for each a differing stimulus value. He will not be evaluated in the same way by his mother, his wife, his employer, his secretary, his rival for a promotion, and the man he has beaten at golf. Definition of personality as stimulus

makes precision impossible, because *two* personalities are interacting in every instance. When Mary reports that Sally is "a malicious gossip," this may give us more information about Mary than about Sally.

Personality as Response.—In an attempt to get away from the difficulties which result from defining personality in stimulus terms, many psychologists have shifted to the definition of personality as response. It is plausible, for example, that if Susan has a charming personality (and not merely a pretty face), this is a function of her behavior. It should be possible, then, for methodical study to reveal the particular pattern of responses evoking the judgment "charming."

This is a distinct improvement over the popular approach, in that the personality is now tied down to certain objective manifestations which can be studied by the techniques of scientific psychology. Such definitions as that of Floyd Allport fall in this group. To some extent there is a danger that the definition will be too comprehensive and cover more territory than can be handled in practice; for instance, Watson's definition amounts to saying that personality is "everything you do." The problems created by an attempt to use such a definition in research are obvious.

Guthrie (1944) has defined personality as "those habits and habit systems of social importance that are stable and resistant to change." While this is more precise than the formulations of Kempf, Prince, and Watson, it still raises numerous questions. What about habits which are not of social importance? Some people like to pose before a mirror when they are alone—a habit that may not be "of social importance," although it is certainly a significant clue to personality. Does habit cover the whole of our subject matter? To many the concept of habit will seem strained if it is stretched so widely.

Guthrie's intent, of course, is to combine the definitions of personality as stimulus and as response. His phrase "of social importance" is presumably equivalent to "which determine the impression we make on others." Thus Guthrie would retain the practical advantage of the popular definition, while reaping the scientific benefits of an approach tied to behavior which can be subjected to methodical investigation.

Even Guthrie's definition encounters some problems. When faced with the same stimulus, a person will not always act in the same way. Moreover, two persons may act in an apparently identical fashion for quite different reasons. The inconstancy of individual responses in some cases and the similarity of response by obviously different personalities suggest the need for still further refinement of our definition.

Personality—Mask or Substance?—Numerous writers have objected to an approach limited to either stimulus value or response pattern, on the basis that each of these is likely to emphasize superficial aspects of the personality. It is suggested that we should distinguish between personality as a *mask,* or "front," assumed in many instances merely for its effect on others, and personality as *substance,* the "real" or inner personality.

Clearly there is some validity in this proposal. Most of us do modify our behavior to fit our social setting. This indicates that many of our responses are still part of the "mask" of social participation.

More difficult is the implicit assumption that there is a "real" personality underlying the various "mask" manifestations. Naturally one tends to think of a basic reality behind changing appearances. But what is the *real* personality? If, when I am with an attractive young woman, I behave differently from the way in which I act when with a group of men, is this not still a "real" facet of my personality? Difference in behavior need not mean a change in personality. Rather, the behavior exemplifies how my personality responds *to the situation as I see it.*

Personality as Intervening Variable.—A synthesis of these approaches may be developed by following out the suggestion just made. It is now a truism in psychology that a stimulus does not immediately and automatically elicit a response. A stimulus affects the organism as a whole, and the ultimate response is a function of both the stimulus and the organism. (When a child is hungry, an ice-cream cone elicits one reaction; when he is satiated, the response is quite different.) There are certain *intervening variables* between the stimulus and the response which affect the nature of the final behavior pattern. Such variables are the person's intelligence, his motives at the moment, his past experience with the stimulus, and his attitude toward the situation in which the stimulus appears. Thus if the stimulus is an invitation to a dance, variables influencing the final response might be the young man's past mishaps at dances, his expectation of meeting a certain girl who attracts him, his financial status, his need to study for an examination during the evening of the dance, and so on. The decision he reaches will be a function of these forces (of which he is not necessarily conscious). Another man may reach the same conclusion, but for entirely different reasons.

Gordon Allport (1937), after an extensive analysis of the possible definitions of personality, has found a definition in terms of intervening variables to be essential. His proposed formulation is as follows:

"Personality is the dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment." [2]

It will be noted that this definition covers most of the difficulties mentioned above. It recognizes the changing nature of personality (a *dynamic* organization); it focuses on the *inner* aspect rather than on superficial manifestations; but it establishes the basis for the social stimulus value of personality (*unique* adjustments to the environment). While it is not possible to study directly a "dynamic organization within the individual," this definition is compatible with a thoroughgoing scientific approach based upon appropriate research techniques.

It might be possible to improve in minor ways on Allport's definition, but on the whole it meets adequately all the requirements of a scientific psychology of personality. We shall therefore adopt it as a standard for the purposes of the present volume.

Allport makes no attempt to incorporate in his definition any characterization of the kind of psychophysical systems he mentions. This is perhaps good judgment, inasmuch as such a listing, once started, ought to be inclusive, and we do not know how many different systems must be included. It does seem worth while, however, to point out the importance of one such system: *our pattern of beliefs and expectancies.*

When John meets a snarling dog, he cries and runs away. His younger brother, Ted, is unperturbed. He scolds the dog and reassures his playmates. This is an important personality difference, which can best be described as a difference in belief or expectancy regarding the harmful potentialities of the dog. Similarly, a man who avoids women is thereby revealing his beliefs about the opposite sex. A boy who feels inferior to his playmates will show characteristic behavior patterns.

The definition of personality as an *inner system* of beliefs, expectancies, desires, and values has numerous advantages. From the viewpoint of research it provides a focus of investigation—less convenient than a definition in response terms, but less confusing than a definition in stimulus terms. On logical grounds it appears to unite successfully these two divergent approaches. One has no difficulty in thinking of an inner structure which determines responses, which in turn influence the judgments of others about us. Furthermore, it resolves certain problems raised by the facts of variable behavior in different social environments and of similar responses which require dissimilar interpretations.

[2] Allport, G. W., *Personality: A Psychological Interpretation,* p. 48. Copyright, 1937, by Henry Holt and Company, Inc.

What Is the "Real" Personality?—It may now be worth while to reconsider the question of superficial and "real" personalities. Popular psychology recognizes the point, implicit in our preceding discussion, that people assume an outer *persona*, or mask, which may conceal something quite different underneath. Behind an appearance of bored indifference there may be quivering sensitivity; the hard-boiled businessman may love to work tenderly among his flowers. A girl may see her fiance under the influence of liquor and say, "Now I know what he's *really* like!"

Any conclusion about a "real" personality in such cases is premature and unfounded. Reality applies more or less equally to the external mask and to the inner organization. A man's daily behavior has a claim to validity at least equal to that which we may attach to his reactions in a very unusual situation, *e.g.*, when intoxicated. Reality attaches to unexpressed wishes, but also to manifest impulses. The customary quiet exterior and the turbulent inner consciousness alike are real features of a personality.

We attach greater significance to the inner pattern of expectancies and beliefs only in this sense, that if we understand fully the inner pattern, we can grasp the reason for the particular "mask" developed. The reverse of this deduction is not so easy.

The question, What is his real personality? thus cannot be answered in any direct manner. We can only state that a man's real personality includes what he wishes to be, how he wishes to appear, how he appears to others, and how he appears to himself. It involves his evaluation of his environment, of other people, and of himself. It also includes the manner in which these inner patterns are concretized in action. Any attempt to assign a greater reality value to one of these aspects than to another would be purely arbitrary. Personality is intrinsically complex; we can offer no simple formula for reducing its rich variety to a dry definition.

Individuality.—Each personality is unique. Every human being possesses the quality of individuality.

Emphasis upon uniqueness is justified by reference once more to popular usage. Friends can be recognized as much by their manner of thinking, talking, and acting as by physical appearance. Often we hear such remarks as "He would do it that way; that's part of his personality!" Experts in the fields of art, music, and literature ordinarily can identify the works of well-known figures by style alone.

If we think in terms of unique human personalities, we shall not fall into the common error of speaking of "a lot of personality." Individuals vary as to *kind* of personality, but not as to amount.

While speech, gestures, and overt acts are concrete evidences of indi-

viduality, it should be clear that a much more fertile field for the study of personal uniqueness lies in those inner systems underlying superficial behavior. The significance of overt responses must be gauged in terms of the wishes and expectancies behind them. Intensive study reveals more and more the unique nature of each individual.

Analysis of Personality

Before going further with a purely formal inquiry into the concept of personality, methods of study, and so on, we shall find it instructive to examine a concrete description of personality—one that is based on scientific investigation. For reasons which will become apparent shortly, the description covers two individuals rather than one.

Two Personalities.—Sam Wilson is a quiet, reserved youngster who talks freely only about impersonal matters and answers direct personal questions with reticence and apparent resistance. Don Young, by contrast, is jolly, somewhat noisy, and talkative. He discusses the most personal matters with no apparent embarrassment or concern.[3]

Sam is rated "seclusive, closed, unfriendly, lacking in a sense of humor" by his acquaintances. Don is considered to be "sociable, open, friendly, with a good sense of humor."

When asked to look at a series of pictures and imagine stories for which each picture could be an illustration, Sam falls into the mood of the instructions quickly and makes up tales elaborate in detail and full of incisive, somewhat barbed comments about people. Most of his stories are tragic in import and the central figure in each story suffers, or is about to suffer, the loss of something that he values highly. Don, on the other hand, finds difficulty in making up stories and, when he does so, gives brief, conventional plots leading to the ever-popular "happy ending."

The two boys are asked to fill out a widely used questionnaire scale for personality traits. Sam makes a high score on "introversion" and "self-sufficiency," a moderately high score on "neurotic tendency," and a moderately low score on "dominance." Don makes a very high score on "dominance," medium on "self-sufficiency," and low scores on "introversion" and "neurotic tendency."

Both make the same score, roughly, on an intelligence test and a test of speed in reading. When asked to predict how fast he could read a similar passage on a second test in reading, however, Sam guesses that he

[3] These two "cases" are synthetic; *i.e.*, they are composites prepared from the records of several individuals, because data from the wide variety of techniques mentioned were not available for the same persons. The two personalities have been constructed, however, to maintain the relationships found in relevant investigations.

can do it much faster, while Don thinks that he would do only a little better the second time. Sam also reveals in other ways that he sets very high standards for himself, while Don's feeling is, "I could make higher grades if I studied, but I guess I like playing around too much."

In a laboratory experiment both boys are interrupted in various things that they have been asked to do. Sam fidgets around until he can get back to the table and finish his uncompleted work. Don sits on the table and begins telling the experimenter about his vacation. When the experimenter leaves the room, Don idly completes one task, ignoring the others. In a test involving quick shifts from one kind of mental work to another, Sam becomes somewhat nervous and mutters a good deal; Don seems completely unperturbed.

On another questionnaire, Sam indicates that he places high value on scientific (theoretical), aesthetic, and social (humanitarian) pursuits. Don reveals a decided tendency to value more highly the practical, economic, and political (power) aspects of situations. Both are a little below average on religious evaluations.

Aspects of Personality.—According to any usage of the term, these two boys are different in "personality." It is apparent that they differ not only in their impression upon their friends (stimulus value), but also as they are studied by interview, by laboratory experiment, and by various kinds of standard "tests" of personality. Personality, then, is something which shows up in our relations to people around us, in our answers to an interviewer (or to a set of printed questions), in our overt behavior, and in our verbal constructions, *e.g.*, imaginative productions. It is, in fact, difficult for a person to engage in *any* activity which does not reflect some facet of his personality.

Many different techniques have been worked out for the study of the human personality. That there is no single *best* way to do this is suggested by the diversity of facts outlined above, each based on a different method of investigation. The psychologist who would study personality must be ready to employ all these and other techniques. This is necessary because even the simplest human personality is very complex. No single key will unlock all its doors.

The Value of Contrasts.—It is easier to describe Sam Wilson by contrasting him with Don Young. Varying aspects of personality are brought more sharply into focus by this method. As a matter of fact, this is the basic technique by which we learn most of our judgments about our environment. To the young child, "cold" takes on meaning as it is contrasted with "hot." Color becomes identified as a variable aspect of the

environment most readily when attention is called to objects similar except for contrasting color.

Most studies of personality have found it expedient to derive descriptions in terms of pairs of polar opposites, such as sociable-seclusive, optimistic-pessimistic, introversive-extratensive, or dominant-submissive. There is less danger of confusion and misunderstanding in working with this method than is the case when single terms are used to identify specific manifestations of personality.

Is Analysis Legitimate?—It may seem strange, but many psychologists object vigorously to attempts to analyze personality into traits for special investigation. This objection is based on the ground that personality is an organized whole and that any form of analysis changes the qualities of the whole. The objection is invalid, since it is based on a false analogy. Psychological traits are not substances, such as water, which can be analyzed into its components, hydrogen and oxygen, only by destroying the material analyzed.

A more realistic approach would be to state that methods of analysis must be appropriate to the material studied and to the ends sought. Water can be studied with regard to such variables as temperature, color, rate of flow, volume, or pressure, without destroying it. If proper units of analysis are employed, personality can also be analyzed without doing violence to its unique totality.

To describe Don Young and Sam Wilson, we found it necessary to go beyond a mere statement that each is unique and could not be duplicated anywhere else in the human race. Such a statement would be of no help to anyone. It is true that something very complex, called total personality, is unique to each of these boys. But for the sake of meaningful description, comparison, and study, it was found desirable to indicate precise *ways* in which they differ. It was then shown that they varied with respect to certain characteristics, such as introversion, level of aspiration, self-esteem, and sociability.

Inasmuch as these are true functional characteristics of the human organism, they seem to be proper units for analysis. They are not, however, physical in character. It would be quite improper to think of traits as if they represented some physiological structure—as if Sam had six units and Don only three units of some organic stuff determining a personality tendency.[4]

[4] This is not to say that we may not some day discover such organic determinants —glandular secretions, autonomic nervous-system functions, or something else. These will, however, be discovered by *physiological* analysis and will be related to traits, which are products of *psychological* analysis.

Personality traits are *abstractions* from the behavior of the whole individual. Indeed, "personality" is truly an abstraction, inferred from behavior, rather than anything tangible and measurable. The trait of sociability, for example, is simply a convenient concept for describing consistent patterns in the behavior of people.

This point may be clarified by referring again to the study of water. The rate of flow of water is not a substance which can be separated out of the water; it is a convenient way of stating the relationship of motion, the fact of changing relative position. Rate of flow does not exist apart from the water; it is an abstraction made by an observer. This does not prevent it from being an extremely valuable concept; it can be measured, and it can be used in a variety of ways.

We shall therefore take the position that it is not merely possible, but necessary, to analyze personalities into traits for closer investigation. Such analyses will, however, be made on a functional, not a structural, basis. Only in this way is a science of personality possible.

Individual Differences.—It is proper, therefore, to state that personalities differ on specific traits and that such traits can be identified by such pairs of polarized terms as sociable-seclusive, impulsive-inhibited, excited-calm, and the like. It would, however, be misleading to leave the discussion at this point, suggesting that personalities can be sharply divided into these dichotomized classifications. Just as we do not classify rates of flow of water into two groups, fast and slow, but resort to numerical measures of speed, so we shall whenever possible use numerical estimates of the *extent* to which these trait names are characteristic of an individual.

When we use this procedure, we find that personality trait differences are usually distributed according to the bell-shaped curve so familiar in studies of intelligence, motor ability, and mechanical aptitude. This means that a few persons are extreme with respect to the trait under investigation; but as we identify manifestations of the same kind which are moderate in degree, more people fall into these middle classes. In most studies, the middle position (not deviating noticeably toward either extreme of the trait continuum) is found to be the most heavily populated. Figure 1, which shows the distribution of scores of a college population on a measure of rhathymia (carefree, happy-go-lucky tendency), illustrates this point. Nobody makes the highest possible score at either extreme of the scale. As we move in toward the neutral point, we find more and more people, with the largest number scoring almost on the center of the scale. Most people are balanced rather than one-sided with respect to this trait.

In this volume we shall be concerned with at least three fundamental problems in the psychology of personality. (1) We shall study the *personality as a whole*—the unique pattern which identifies each person as different from his fellows; (2) we shall study the *traits* into which the total personality can be analyzed in a meaningful manner; and (3) we shall study *individual differences* with regard to these traits.

Looking at our subject matter in a different light, we can say that the psychology of personality is concerned with certain *universals* in human

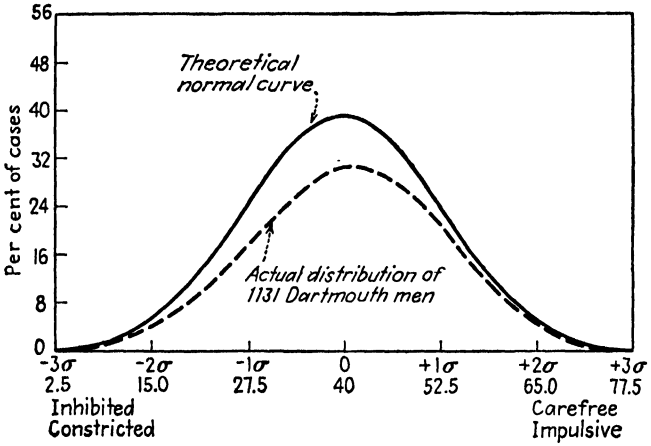


FIG. 1.—Distribution of scores on a typical personality-trait measure (Guilford's rhathymia scale). Individual differences in personality tend to be distributed according to the normal curve.

development (motives, emotions, learning) as they determine personality; with certain *unique* phenomena, such as may appear only in a single person; and with certain *group factors* common to those individuals who have had certain experiences, *e.g.*, living in western European civilization, or being exposed to certain kinds of family patterns.

The study of the unique personality of each individual is extraordinarily difficult. If carried out logically, it might imply writing a separate book about each person studied. It is practical, however, in many cases to consider the unique person as merely a special instance following the same orderly principles as those found in the examination of group factors. Most of the discussion in this text, therefore, will center around trends which can be cross-checked against different individuals. Certain generalizations which develop in the process may then be applied to the case of the unique total personality.

Thinking Scientifically about Personality

Before the specific techniques utilized in the scientific study of personality are taken up, it seems desirable to state certain general principles of thinking which are involved in this approach. These principles are not specific to the problems of personality, but are sufficiently in contrast with what might be called the common-sense approach to human behavior that special discussion of them is needed.

Animistic versus Realistic Thinking.—A substantial proportion of the average man's thinking about psychology, and especially about such complex psychological problems as personality, is *animistic* in character. By this we mean that descriptive generalizations are used as if they were *forces* explaining behavior; that abstractions are often, erroneously, given the attributes of life.

Primitive man "explains" a storm by invoking the presence of a living force, a deity of sorts. Civilized man thinks realistically about storms, in terms of atmospheric pressures, temperature, and humidity. Progress from animistic to realistic thinking in the field of physics and chemistry has virtually been completed.

Animistic thinking in the field of human behavior, on the other hand, continues to be more common than is realistic thinking. Many of us still believe that personality can be changed by magical invocations (swearing at one's roommate, for example) or by human sacrifices, as in the case of mothers, whose sacrifices for their children may do more harm than good. Public opinion on crime and punishment, likewise, shows animistic tendencies. Few people think as realistically about criminals as they do about machines. If an automobile engine breaks down, we look for the cause (defective lubrication, bad fuel, improper ignition) and *correct these conditions* of the engine's behavior. We should not dream of putting the engine in jail for a year and expecting that it would, upon release, decide to perform properly. Yet human beings are still handled on this animistic basis, despite the evidence of thousands of years proving its futility.

A related and equally complicating factor is the virtually universal tendency to classify human behavior as "good" or "evil." A chemist who considered a red litmus reaction good, and pronounced the blue, wicked, would be ridiculous. He must study the behavior of his chemicals dispassionately. But much of what passes for popular psychology gets hopelessly entangled in moralistic judgments. It is not enough to characterize a fascist dictator as a "mad dog." *Who bit the dog, and why is he so mad?* Only through unemotional study of what the person does and of

the preceding conditions which led to this response, can psychology progress. We cannot allow our energies to be dissipated in mere moral condemnation. The knowledge so acquired may, later, be applied to "improve" human behavior; that, indeed, is a task explicitly discussed later in this volume. The investigation of personality, however, must be free from judgments of good and evil.[5]

Cause and Effect Relationships.—The realistic approach suggests that we must have a *deterministic* point of view about ourselves and others. You personally should realize the implications of this view for yourself. You can read because you have been taught; your morals are a product of training; your self-confidence, emotionality, and impulsiveness are results of your specific experiences. To a very substantial extent, *what you will do tomorrow is already determined by what you are today.* This is neither an argument for an attitude of reckless irresponsibility nor an assertion of the unchanging character of human nature. All organisms, but especially the human, have the capacity for seeking out certain kinds of stimulation. By deliberate choice you can expose yourself to stimulus conditions which will result in changing your personality; but it is extremely unlikely that you can produce a change merely by *verbal resolution* to reform.

Genetic Continuity.—The preceding formulation leads logically to the principle of the continuity of the personality from conception, through birth, infancy, childhood, and maturity, to old age. Continuity does not mean unchanging rigidity. A river has continuity, but it is constantly changing. In an adult personality we can still locate infantile characteristics, but these have been overlaid by many intervening experiences. The fusion of the male and female germ cells determines certain hereditary potentialities of the individual. From that point on, environmental pressures modify, suppress, or channel these possibilities.

From infancy onward, the individual's reaction to a present stimulus is a function, in the main, of his reactions to past stimuli. Characteristics develop or change little by little over a period of time, with few exceptions. Even in the case of catastrophic changes in personality, it is usually possible to show how the person's past training prepared him to respond in his characteristic way to a crisis situation.

[5] It is further significant to note that the most effective systems of psychotherapy [*cf.* Freud (1920) and Rogers (1942)] emphasize the fact that the psychologist must at all times avoid praise, criticism, moralizing, and scolding. His task is to help the patient acquire insight into the real conditions determining his actions and ideas, following which the patient himself can manipulate the environment and his own acts to achieve a better adjustment.

It is apparent that, if we accept this view, we must also accept the view of *multiple causation.* No stimulus ever acts in isolation. While we may successfully identify the immediate cause of a person's behavior, background events played their part as remote causes in determining the response which occurred. It is not, therefore, practical to search for specific one-to-one relationships between experiences and personality traits.

Finally, it seems clear that genetic continuity means that *personality is a process.* In the study of the individual we must necessarily take static cross sections and examine them; but the real, live individual is constantly changing to maintain adjustment to his environment. This will be particularly clear as we examine the extent to which the person, impelled by inner drives and expectations, modifies his environment and is in turn modified.

The Unitary Personality.—The personality is a psychophysiological unit, integrated with a specific physical organism. Changes on the biological and biochemical levels affect the manifestations ordinarily called psychological, and changes of a mental character have biological repercussions. It is not correct to speak of these as body influencing mind or vice versa. These changes are simply *personality events.* Nothing but confusion is achieved by ascribing a glandular change to the physical realm and an emotional upheaval to a mental category.

The personality is also a psychosocial unit, being inextricably bound up with a culture and its various subgroups. No one ever escapes completely from the cultural background of his early development. Since the personality is coextensive with a single biological organism, however, it is possible to make an objective distinction between happenings within the individual and stimuli presented by the culture to which he must adapt himself. The psychosocial unity of personality is thus less apparent to the casual observer than is the psychophysiological unity.

Preview

The foregoing pages have stated certain general principles which underlie our treatment of the psychology of personality. It is now in order to plan an approach to this very complex material.

It seems desirable, at the beginning, to consider the major techniques by which psychologists have studied personalities. These techniques differ according to the definition of personality accepted; *e.g.,* methods for studying the stimulus value of personality, methods of identifying the consistent responses of the individual, and ways of inferring with some precision the inner systems which constitute the deeper level of personality. The two chapters immediately following will present these techniques in

sufficient detail so that the student can feel some familiarity with the operations utilized by experts in gathering data. The treatment will not, however, make the student a skilled technician in any respect. Only the study of more advanced texts and considerable practice under skillful guidance will accomplish that.

With a little background in methodology, we shall concern ourselves with a comprehensive description of personality. This will be first longitudinal and then cross-sectional in character; *i.e.*, there will be an attempt to describe the processes by which the infantile personality evolves to maturity (Chaps. V-VII), and, later, a description of some major traits of personality common to Western culture (Chap. VIII). This will be followed by a chapter on the Ego, or Self, as a central feature of the adult personality (Chap. IX). Concluding this section will be discussions of such topics as character, attitudes and values, gestures, and type theories of personality.

Our material on descriptive psychology attempts to limit itself to processes which can be observed directly or to which inference is fairly direct. This is less easy when we come to consider the problems of dynamics—the question of the motivating impulses which push the developing personality along its path. Admittedly it is highly arbitrary to separate in this manner two aspects of personality which are so intricately interwoven; it is, on the other hand, impossible to study everything of importance simultaneously. The section on dynamics will therefore backtrack and consider some of the same topics presented in the descriptive section, with the aim of exposing underlying motivation. This will include the biological drives (hunger, thirst, pain, etc.) in Chap. XIV; some of the more sophisticated motivational constructs, such as those of the Freudians in Chap. XV, and finally a discussion of motivation in terms of cultural pressures in Chap. XVI.

The discussions of personality on the descriptive and the dynamic level may seem somewhat artificial, in that mention of the role of the environment is kept at a minimum. In a final section we shall try to integrate the motivational analysis with a consideration of the effects of specific environmental situations, to give the best possible "explanation" of the traits described earlier. Principles of explanation must necessarily concern both inner needs and external blockages of these needs; the dynamic character of the organism and the molding effect of the environment. This external shaping starts with parent-child relationships and extends to the complexities of social philosophy. Social conditions at all levels between these extremes play their part in patterning the developing individual. But here we must also recognize a reciprocal relationship;

the mature individual is likely also to shape his environment. One who is hungry does not necessarily eat food as he finds it; he may process and improve it. Similarly, we are not doomed passively to accept the social milieu which shapes our personalities; we can react upon and modify it.

It is obvious that studies of personality designed to throw light on such a multiplicity of phenomena must necessarily use a variety of techniques. These range from methods representing only a slight improvement on common sense to totally novel devices of decidedly superior quality. We shall now turn to a consideration of these methodological problems.

SUMMARY

The scientific study of personality begins with the popular conception of personality as social stimulus value. This definition is successively refined—first, to cover the responses which make one popular or unpopular, impressive or unimpressive; and finally, to emphasize the inner patterns of beliefs, desires, and expectancies which determine outer responses. Personality is a continuously developing unity. It is shaped by environmental conditions, not by animistic forces. While change is possible, it is not to be achieved merely by verbal magic. Scientific thinking about personality requires that we abandon evaluative, good-bad, moralistic concepts and study human beings with the same mature realism that we have learned to use so effectively in the physical realm. This is justified further because the old mind-body dualism must be abandoned; visceral changes and idealistic ambitions are alike manifestations of a unitary personality.

SUGGESTIONS FOR READING

The most comprehensive and, in general, the best treatment of the normal personality is Gordon W. Allport's *Personality: A Psychological Interpretation.* A good early book which deals with both normal and abnormal personalities is P. F. Valentine's *Psychology of Personality.* A major contribution to the theory of the normal personality appearing after this book was in type is Gardner Murphy's *Personality: A Biosocial Approach to Origins and Structure.*

Most of the books in this field stress the abnormal or maladjusted individual. An excellent treatment, in close accord with the views expressed here, will be found in L. F. Shaffer's *Psychology of Adjustment.* English Bagby's *Psychology of Personality* deals well with various emotional problems.

The popular aspect of the psychology of personality relates to problems of self-improvement, making friends, and influencing people. Fred McKinney, in his *Psychology of Personal Adjustment,* has done a fine job of showing how college students can understand and improve their own personalities. Other excellent books in this area are Strecker and Appel's *Discovering Ourselves,* Overstreet's *Influencing Human Behavior,* and Shellow's *How to Develop Your Personality.*

CHAPTER II

METHODS IN THE STUDY OF PERSONALITY

General Considerations

The study of personality by scientific procedures is relatively new; but the practical study and estimation of personality traits dates from time immemorial. The customs of primitive tribes today reveal practices which have the status of pragmatic tests of personality. Before a boy is accepted into the status of manhood, he must have proved his fortitude, his emotional control, and other traits, to the satisfaction of the elders of the tribe. The history of early religions and other movements indicates that great stress was laid on the personality qualifications of new initiates and that they were required to pass strenuous tests before being accepted into full membership.

The tests employed in these rites were not tests as we shall use the term. They were actual situations. We ordinarily speak of a test when the subject goes through some brief performance which enables us to infer some related quality or ability. In those days the procedure was simpler. Daniel's courage was tested by his being tossed into a den of lions. Adolescent boys are tested in many primitive cultures, even today, by painful skin lacerations. Reactions to such situations are not mere token manifestations of traits, but heroic, full-scale performances.

From some points of view, perhaps, it is to be regretted that such methods are not permissible in our culture. Certainly it is a more valid procedure to test a man's honesty or courage in these ways than simply to ask him questions. On the other hand, psychologists would have great difficulty in getting experimental subjects after the first one escaped!

Scientific Techniques.—The techniques of scientific psychology in the estimation of personality are in some instances merely refinements of those used by everyone in daily life. Each of us finds it necessary at varying intervals to make judgments about his friends. The expert differs from the amateur chiefly in the controls that he imposes on the task. He *defines* more precisely the characteristics that he wants to study; he uses a *standard scale* for recording his judgments; and he sets up *uniform con-*

ditions, so that his impressions will not be influenced by factors irrelevant to the traits he is trying to judge. Further, he devises *statistical checks,* to determine whether he is showing prejudice and whether his impressions are uniform from one observation to another. Finally, he selects a *criterion* of validity which his test data must meet.

The foregoing are some of the refinements in the study of "personality as stimulus." Psychologists have also developed various special techniques in the investigation of the response aspect of personality. The scientist makes use of carefully planned situations, as opposed to casual observation of behavior, and uses instrumental recording wherever possible. Competitive and cooperative behavior can be elicited in the laboratory. Standardized frustrations, such as manipulated failure on a test of skill, can be applied. The subject's reactions may be photographed or recorded phonographically, so that leisurely analysis is possible.

Naïve inference as to "what a person is really like," *i.e.,* study at the level of *intervening variables,* is so uncontrolled that often one does not know the basis for his own judgment. The interpretation, "John is always trying to outdo his father," may be reached on vague and intangible evidence. By the study of responses to word-association lists, standardized questionnaires, story telling in response to pictures, and similar devices, the psychologist can ascertain in a relatively precise manner the existence and intensity of such concealed patterns.

Basic Concepts

The desirable characteristics in a personality test are reliability, validity, and objectivity. Before taking up specific measurement devices, it is necessary briefly to indicate how these three aspects are evaluated.

Reliability.—Scientific method requires that every measuring device be *reliable.* A test is said to be reliable if it reveals uniform individual differences whenever it is applied. If we measured the heights of college men with an elastic yardstick, our results would be unreliable—a repetition might give quite a different distribution of heights from the first measurement. When measured with a reliable instrument, the men will all be allocated to the same height classification upon repetition of the measuring procedure.

The reliability of physical measurements is fairly high, although when we seek split-decimal accuracy, unreliability becomes noticeable. A man's weight in pounds may be quite reliable, whereas his weight in grams fluctuates sharply. This may be due to the fact that the scales are not performing with complete uniformity (unreliability of instrument) or to the fact that the man varies with food intake, perspiration loss, and so on

(unreliability of the individual). The conditions making for unreliability of physical measurements, such as temperature, barometric pressure, and humidity, are well known, and definite controls are feasible. The conditions making for unreliability of psychological measurement are numerous, poorly understood, and difficult to control. It is thus not surprising that errors in personality measurement occur much more frequently than errors in measures of height and weight. Nevertheless, substantial progress has been made in this field.

The obvious method of determining reliability is to *repeat the test* after a period of time. This is not always possible. Perhaps the essence of the test is that the subject should not know what is going to happen next. On a retest he will have this knowledge. Perhaps learning, fatigue, and boredom would confuse the results of retesting.

A second method is to *split the test* data into equal halves: *e.g.*, performance in the first, third, and fifth minutes, compared to the second, fourth, and sixth; performance on odd- and even-numbered trials; or any other fair division of the record into comparable halves. By computing the correlation between these two figures, we get an estimate of what the reliability would have been if we could have repeated the test.[1]

The mathematical statement of a test reliability is in terms of the correlation coefficient. If all the scores on the second testing (or alternate half) agreed perfectly with the first scores, the correlation coefficient would be +1.00, and the test would have perfect reliability. If there were no connection whatever between first and second scores (highs and lows scatter in all directions on second administration), the correlation would be 0.00, and the test would have zero reliability. If, for some reason, persons scoring high at first fell below average later, and vice versa, the coefficient would move toward −1.00. Naturally, negative reliabilities are not likely to occur. Negative correlations are often found; *e.g.*, between intelligence and number of courses failed in school.

Perfect reliabilities are not found in personality work. If a test reliability is above .80, it is considered sufficiently dependable to use for selecting groups of defined characteristics, but not until it reaches .90 is it acceptable for the diagnosis of individuals. Gross physical measures, such as height and weight, have reliabilities of more than .90, if reasonably good equipment is used; the best tests of intelligence also meet this criterion. Many measures of physiological function, however, such as blood

[1] When the split-half method of determining reliability is employed, a correction is introduced to compensate for the loss that results from cutting the test in half. Such figures will often be used in this book; they will be labeled "corrected reliability."

pressure, and many measures of psychological characteristics, such as personality traits, have reliabilities around .80 or even less.

Ordinarily we assume that low reliability is due to improper construction of the testing instrument or to imperfect control of the test situation, but it is quite possible that many human functions are inherently unreliable. If this should prove true, it would not mean that we must give up all hope of studying personality scientifically; it would require only that we allow for a larger margin of error in our predictions of the future than is necessary in the world of exact physical measurement.

Validity.—There is little point in making a reliable measure of something if it is not what you desire to measure. Some early tests of "intelligence" were of proper reliability, but it was ultimately found that they measured such functions as arithmetic achievement or speed of reading, as opposed to general mental capacity. They thus lacked *validity.*

The determination of validity in personality testing is a problem of extraordinary difficulty. Physical instruments can be validated by referring them back to the standard meter bar, the standard electrical resistance, or other accepted criterion. Psychologists have neither a standard individual, against whom others might be checked, nor standardized units of a universal character for the measurement of specific traits.

Test constructors have presented evidence for the validity of their instruments under the following five classifications: (1) by showing that the test distinguishes between extreme groups chosen on an objective basis, (2) by comparing the test results with expert ratings, (3) by comparison with life-history data and clinical records, (4) by showing that test scores predict future behavior, and (5) by rational inference.

Extreme Groups.—Many tests have been validated by showing that they differentiate between groups of subjects who are unquestionably extreme in some respect. The Neymann-Kohlstedt test of introversion-extraversion took schizophrenics in a mental hospital as a standard for extreme introversion, manic-depressive psychotics as the extreme of extraversion. Cattell (1941) showed that his CMS test gave significantly [2] higher scores to normals than to delinquents or insane individuals. Ror-

[2] Before any difference in scores is interpreted as proving the existence of a "true" difference, it must be evaluated statistically. Generally this involves checking the obtained result against the probability that it might have occurred by chance. In this book, the statement that a difference is *significant* ordinarily will be restricted to those instances having a chance probability of less than 1 in 100, or where we can be confident "at the 1 per cent level" that a difference of this size could not have occurred by chance. For cases where we cannot be so confident that chance has been ruled out, we shall speak of "trends" or "suggestive differences."

schach (1921) based his evidence of validity on differences between normals, neurotics, and psychotic patients.

There are two major points which militate against the validation of personality tests by administering them to groups separated by *psychiatric diagnosis*. One is the often-mentioned fact that persons who have cracked up so completely as to be referred to a psychiatrist (neurotics and psychotics) may differ from normals with respect to variables other than the one being studied. The communication function, in particular, is likely to be disturbed. Hence it is only a dubious validation that a test does discriminate psychiatric groups from each other or from normal subjects; and it is by no means convincing disproof of validity when a test fails to accomplish this.

A second and perhaps even more fundamental criticism is the well-nigh complete lack of validation of psychiatric diagnoses. The psychiatrist often changes his diagnosis in accordance with the patient's development; many an early "schizophrenia, agitated" becomes "manic-depressive" when improvement is shown.[3]

Denker (1939) reports that, of 1,000 patients diagnosed as neurotics of one type or another, only 707 were similarly diagnosed a year later. An error of 29.3 per cent in diagnosis leaves a rather wide margin for doubt, when neurosis or psychosis is used as a validating criterion for formal personality measures. Masserman and Carmichael (1938) are even more pessimistic; in checking on 100 patients at a Chicago outpatient psychiatric clinic, one year after the original diagnosis, they found that 41 had to be reclassified. It is impossible to say, in these follow-up studies, how many changes were due to original errors in diagnosis, how many to true changes in the patient. We are, none the less, impelled to conclude that a psychiatric diagnosis is likely to be unreliable and hence not a stable criterion for validating any test.

As an alternative to the study of psychopathological groups, various psychologists have applied what may be considered an inversion of this method. The procedure is to construct a test on theoretical principles or clinical observations, and to administer it to a presumably normal population. Persons making *extreme scores* on the scale are then studied intensively for personality differences. This may include not only the checking of each specific item in the test, to see if it is answered differentially by the two groups, but also the tabulation of differences in health history, objective evidence of social acceptance, and concrete behavior in specified situations. Adams (1940), for example, found marked differ-

[3] For a psychiatrist's critique of psychiatric diagnoses, see Cameron (1941), pp. 6-9.

ences in behavior under emotional stress when he tested men from the upper and lower extremes of Bernreuter's scale of "neurotic" tendency.[4]

This method is subject to fewer criticisms than its predecessor. Adequate confirmatory data, however, are not easy to obtain; and to assure control of uncertain variables, it is desirable that the process be repeated with different populations, making the validation task laborious.

Expert Ratings.—In some cases the validity of a test is defended by submitting it to the judgment of experts. It is obvious that trained psychologists ought to be able to judge the probable validity of a personality test. Nevertheless, much will depend on the proper selection of experts, and their judgment in any case will bear less weight than that given to objective evidence of the type mentioned above.

The difficulties encountered by this procedure may be illustrated by reference to Kornhauser's (1945) survey on experts regarding two commonly used devices—questionnaires and the Rorschach test. His findings are summarized in Table 1.

TABLE 1.—OPINIONS OF PSYCHOLOGICAL TEST EXPERTS REGARDING CERTAIN TESTS[1]
(Kornhauser, 1945)

In the field of personality testing, how satisfactory or helpful for present practical use do you consider:

(*a*) Personality inventories and questionnaires (such as those of Bernreuter, Bell, Humm-Wadsworth)?
(*b*) The Rorschach test?

	Inventories, per cent	Rorschach, per cent
Highly satisfactory	1.5	0.0
Moderately satisfactory	13.5	20.0
Doubtfully satisfactory	36.0	29.0
Rather unsatisfactory	33.0	22.0
Highly unsatisfactory	16.0	29.0
Total	100.0	100.0
Number of psychologists	67	59

[1] Reprinted by permission from *Educational and Psychological Measurements*, 5, p. 6.

[4] Similarly, the Allport-Vernon Study of Values is considered validated by the fact that high scores on particular values are generally made by persons in appropriate occupational groups: *e.g.*, Y.M.C.A. secretaries score high on the social value, businessmen on the economic, scientists on the theoretical.

It is obvious from Kornhauser's data that neither type of test can be considered valid if we require a judgment of "highly satisfactory" by any substantial number of experts. Even if we attempt to determine the relative validity of the two types of instrument, we get little help in this way. The consensus seems to be that each is "doubtfully satisfactory."

Subtle and abstruse testing devices will necessarily come into use with no sanction except expert approval. This has been true of the electroencephalogram and other novel diagnostic devices in medicine. This does not relieve the sponsors of the obligation to collect objective evidence of validity as rapidly as possible.

Instead of submitting the test to a jury of experts, we may use the test on a group of subjects, then have psychologists or psychiatrists *check the test results* against their impression of the personalities involved. While this is essentially an adaptation of the method of comparing with psychiatric diagnosis, it does not involve the problem of whether pathological cases can answer a test properly, nor does it force a comparison with an arbitrary psychiatric diagnosis. Seibert (1945), for example, gave a test to freshmen college students and later studied the students individually. Of the 21 students found maladjusted by the test, personal study confirmed the test result in every case.

We may also include here some mention of validation by correlating test scores with ratings by personal acquaintances. It is argued that intimate friends are "experts" with regard to an individual's personality. This is debatable; however, many well-known tests rely in part upon such evidence of validity.

In one respect this position is unassailable. If John says he likes Jane and his statement is not made under coercion, it would seem that the remark has complete validity. Similarly, if he judges Jane high on attractiveness, this is a completely valid index of *his opinion*. It is not, however, a necessarily valid indicator of Jane's personality. She may seem quite attractive to him but not to others. Thus the validation of tests in terms of ratings by acquaintances will encounter many difficulties. It is valuable chiefly as confirmation of other evidences of validity.

Comparison with Life-history Data.—A mathematics achievement test would not be valid if it did not distinguish successfully between students who have studied mathematics and those who have not. Similarly, personality test scores ought to vary for people with differing life histories, and such evidence is interpreted as indicative of validity. Stouffer (1931) compared students' scores on an inventory for attitude toward prohibition with life-history material relating to their experiences with alcohol. Judges who studied the life histories were able to predict the attitude

scores with high accuracy. Harrison (1943) reported that he deduced biographical material from his subjects' records on the Thematic Apperception Test, and got 83 per cent agreement with their case histories.

Prediction of Future Behavior.—The most exacting measure of validity is that involving prediction of the individual's future performance. The earliest tests of personality aimed at selecting, during the First World War, soldiers who were likely to break down and develop psychoneurosis under the strain of combat [see Hollingworth (1920)]. Apparently no men were actually tested and then sent into combat to determine the predictive value of the test. It appears that in the Second World War tests were used mainly to identify persons needing closer psychiatric scrutiny. Reported results indicate an accuracy of about 80 to 90 per cent [Mittelman (1944); Shipley and Graham (1946)] in terms of the total number discharged for neuropsychiatric reasons. Most of these never reached combat.

Munroe (1945) has administered the Rorschach test to entering students at Sarah Lawrence College and rated them for general adjustment. Her records indicate that visits to the college psychiatrist and reports of difficulties from instructors accumulate much more rapidly for the group rated poor. Her results with a questionnaire, the Bernreuter inventory, were much less satisfactory.

Bender (1935) conducted a different type of prediction experiment. After four 1-hour conferences with each of eight subjects, he attempted to predict their scores on each of ten standard personality tests. The correlation between the eighty predicted and actual scores was .55, indicating good validity for the interview method or for the tests, depending upon one's point of view.

There have not been enough investigations which have sought to use measures of personality to predict behavior under experimental frustration. The study by Adams, cited above, indicated that men scoring "neurotic" on the Bernreuter test were more upset by his experimental conditions. Other investigations on this pattern are needed.

Rational Inference.—The least satisfactory of all methods of evaluating personality measures is the use of pure logic. The difficulties encountered here result, no doubt, from the short history of scientific psychology and the extent to which traditional concepts are still employed. A case in point is that of the Character Education Inquiry [Hartshorne and May (1928)]. These investigators devised practical tests of honesty and were surprised to find that honesty in one situation might not predict honesty in another; or, in other words, that their tests were not valid measures of honesty in general. One inference from this is that "honesty in general"

is a concept taken over from popular psychology which may have to be abandoned.

When we have accumulated a vastly wider knowledge of personality and its functioning than is now available, pure logic may be sufficient validation for a test instrument. Today we must be more critical. No matter how reasonable it may seem that an instrument *should* give a valid measure of personality, it is wise to insist upon validation by one of the other approaches described.

Objectivity.—A third desirable feature of all personality-measuring devices is objectivity. This may be defined as the extent to which the results are independent of the specific experimenter. Equally competent persons testing the same subjects should get the same results. In this sense it is clear that lack of objectivity means lack of validity and, if several experimenters are using the instrument, lack of reliability as well.

Objectivity should not, however, be confused either with impersonal records or with numerical scores. X-ray photographs are quite objective in one sense, but expert diagnosticians occasionally differ on interpretation of the pictures. Blood-pressure records are numerical, but physicians do not agree completely on their significance in a given case.

Many personality measures are quite objective, in the numerical or recording sense, while others seem rather subjective. Yet skilled technicians may agree better on the second type than on the first. For instance, the Rorschach ink-blot test seems highly subjective, yet Rorschach experts can prepare independent interpretations of a test record, without any personal contact with the individual taking the test, and will agree on the major findings. It thus seems desirable, at least in the field of personality study, to state that the requirement of objectivity is met when well-trained technicians agree substantially on the test results.

Purposes and Methods

When the object of study is so complex a phenomenon as the human personality, methods of investigation must inevitably be varied and, often, highly technical. The exact method adopted for any given inquiry will vary according to such considerations as the specific purpose involved, the amount of time available, and the situation in which the study is being made.

The purpose of an investigator may be highly practical, or it may be theoretical. He may be concerned with selecting salesmen or with finding the cause of an emotional difficulty in a patient. On the other hand, he may be seeking general laws operating in the development of personality or interrelationships among various factors in personality.

An investigator may direct himself to the description of *similarities* in personality; thus he may attempt to determine the typical reaction to frustration or the extent to which fantasy becomes a habitual feature of human behavior. He may, on the other hand, be concerned with establishing *differences;* first, with regard to common characteristics (some people daydream more than others) and, second, in terms of the unique characteristics of the individual personality. It is clear that the methods adapted to one of these various goals will not necessarily be suitable for others.

It follows automatically from this reasoning that there is not and may never be one *best* method for the investigation of personality. Rather, psychologists develop procedures which are appropriate to their purposes and to the specific aspect of personality that they seek to explore.

Personality as Stimulus

It is convenient to classify these techniques according to the approach to personality which they exemplify: personality as stimulus, as response,

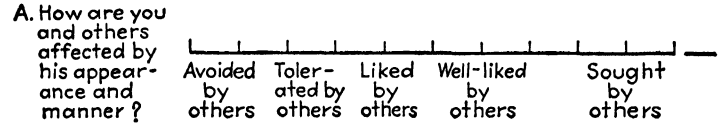


Fig. 2.—Rating scale. The rater checks a point on the scale to indicate his opinion of the subject. The dash on the end means "no opportunity to observe."

and as intervening variable. For the study of personality in terms of social-stimulus value, the best method is the rating technique. The formal ratings of the psychologist and the casual judgments of the layman differ only with respect to the *controls* which are imposed. Rating techniques seek to eliminate certain sources of error which are common in amateur observations.

Forms of Rating Scales.—Uniformity is introduced into the rating situation, first, by prescribing a standard form in which all judgments must be cast. One of the most used, and probably one of the best, forms is that of the *graphic rating scale.* An excellent example is that devised by the Committee on Personality Traits of the American Council on Education, of which a single item is reproduced in Fig. 2. The key question is followed by a line divided into 10 equal segments. The judge is asked to characterize the subject by placing a check mark somewhere on this line, indicating the degree of this trait exhibited by this person. (The extra dash at the end is checked in case the judge has had no opportunity

to observe the trait in question.) It is believed that the segmented line, with its resemblance to a foot rule, induces in the judge an attitude appropriate to measurement as opposed to loose description of personality. The spacing gives an opportunity to mark between descriptive phrases, indicating that neither exactly characterizes this individual. Judgments are converted into numerical values for statistical purposes, by measuring the distance from the left-hand end of the line to the check mark.

There is no theoretical difference between the graphic rating scale and other types, such as those calling for judgments of amount from 0 to 100 per cent, or letter grades. The graphic scale has been found by some investigators to be more reliable, and many judges find it easier to use.

The "Guess Who" Test.—Slightly different from the orthodox rating scales is the guess-who technique, a method of determining social-stimulus value, devised by Hartshorne and May (1928). The procedure involves reading a description to the group: "a bully"; "a restless, giggling girl"; "a neat, popular boy"; and so on. The members are asked to write down the names of people who fit this description. It is thus a way of identifying people who are perceived as fitting a given pattern. Scores are computed in terms of the number of times a person is mentioned as fitting a given description. While it is useful only for identifying the outstanding characteristics of an individual as seen by his associates, it is often quite valuable [*cf.* Newcomb (1943)]. The corrected reliability is reported as very high, Hartshorne (1929) giving the reliability as .95.

Sociometry.—A realistic and practical device for estimating social-stimulus value is the sociometric scheme developed by Moreno (1934). In typical instances, institutional girls are asked to choose roommates, workers are asked to choose others for work teams, and the like. The number of times an individual is chosen indicates his popularity or attraction value; the number of unreciprocated choices made by a person is a rough index of social frustration. The pattern of choices and rejections for a given individual is referred to as his *social atom.* In a world in which human tensions are more dangerous than atomic fission, this term may be more appropriate than would appear at first glance.

Typical of sociometric studies is one by F. B. Moreno (1942), from which Fig. 3 is reproduced. This figure shows the pattern of positive choices (solid lines) and failures to choose (dashed lines) in a group of nursery school children. It is clear that such charts give in compact form a great deal of information about the relative social status of different individuals.

The reliability and validity of the sociometric technique have been objects of various investigations. Without summarizing these, we can say

that each seems to be moderate rather than high. Since the method does not result in precise numerical scores, measures of reliability and validity are mostly indirect and subject to some doubt. Sociometry is, none the less, definitely useful in psychological work.

Reliability of Ratings.—As applied to ratings, the term "reliability" has two possible meanings: the extent to which the same judge agrees with himself on successive ratings, and the extent to which two or more

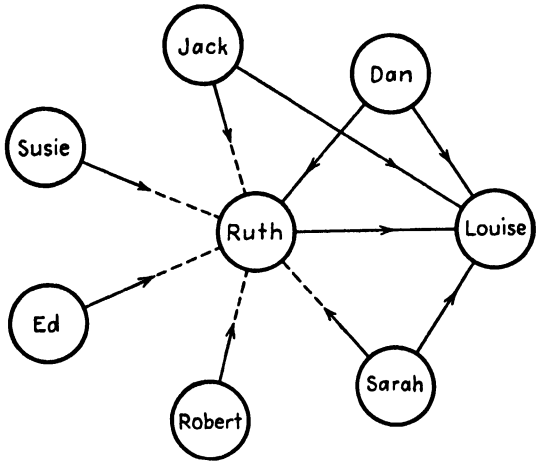


FIG. 3.—Social atom (after F. B. Moreno, 1942). Solid lines indicate choice as playmate, dashed lines indicate rejection. Arrow shows direction in which contact was initiated. Ruth, chosen by all, plays only with Louise and Dan; Louise also accepts Jack and Sarah. Susie, Ed and Robert are temporarily isolated. (*Reproduced by permission from Sociometry*, **5**, *p.* 408.)

judges agree with each other. Generally speaking, the reliability of a single judge, unless he is exceptionally well trained, will be too low for much reliance to be placed on the judgments. By an increase in the number of judges,[5] the reliability of ratings can be raised substantially.

Symonds (1931) has collected extensive data on the reliability of ratings. He finds, for example, that the self-consistency of the average judge on a single trait is only about .55, and to raise this to a suitable level requires a number of judges. To raise the figure of .55 to .82 (about equal to the reliability of a short intelligence test) would involve the use of four judges. If we aim for a reliability of .90, which is commonly set as the

[5] Reliability can also be boosted by increasing the number of ratings made by a single judge. One method for accomplishing this is to have the judge rate a number of subjects on one trait, then on another, and so on. As the partially independent aspects of personality are summed, a more reliable estimate is achieved.

minimum for a measure to be used in individual diagnosis, we shall need eight judges.[6]

The reliability of ratings varies for different traits. Such objective characteristics as efficiency, quickness, and perseverance are rated more consistently than are ambiguous qualities, such as integrity and cooperativeness.

Validity of Ratings.—It is obvious that any factor reducing the reliability of a rating will also lower its validity. This is equally true of all other measurements of personality.[7] It is, however, possible for reliability to be high while validity is low. Ratings of the intelligence of a beautiful woman, made by male judges, might all agree (hence, meet the standard of reliability), yet be grossly in error in terms of her score on an objective test of mental ability.

The example used is only one of many errors in rating which tend to lower validity. Since rating scales are so widely used—and since the same type of error is made in casual, everyday judgments of personality—it will be profitable to examine these mistakes and the methods by which they can be avoided or diminished.

Errors of Definition.—Judgments of personality must be made in terms of trait names, but not all people use the same terms and, even when two individuals use the same descriptive adjective, they may not have the same meaning in mind. Nervousness to one judge is primarily a physical phenomenon, including trembling, jumpiness, tics, and stammering; whereas a second interprets it in terms of mood, depression, worries, and other emotional upsets. The defect can be remedied by providing a uniform list of all terms for all judges, preparing detailed operational definitions for these terms, or having conferences at which the judges agree on definitions. Murray (1938) reports that many lengthy debates were held before his group of experts came to use trait names in a uniform fashion.

Errors of Distribution.—Judges are often found to differ on their concepts of high, low, and average for a given trait. One may be lenient, pulling all his judgments above the theoretical neutral point, while an-

[6] Carter (1945) is even more pessimistic. He finds that two college instructors, rating intelligence (which should not be too difficult a task), agree only to the extent of .51. He sets the number of judges required as 16!

[7] Occasionally we get a situation in which two judges rate the same person and err in opposite directions, one overestimating, the other underestimating, so that they both agree with the "real" trait more nearly than they do with each other. In this case it might be argued that validity is higher than reliability. We doubt that this occurs often; certainly one cannot depend upon it.

other is severe. One judge uses extreme ratings often, while a second avoids extreme marks. Either deviation will introduce inaccuracies into the ratings.

A statistical technique for correcting this difficulty involves converting ratings to standard scores.[8] It is arbitrarily assumed that each judge should come out with the same average and the same scatter of ratings. The standard score method enforces this requirement. Thus it avoids errors in validity of the type described.

Errors Due to Unequal Units.—Ratings are made on the assumption that units of judgment are equal—that the jump from 2 to 4 on the scale is as large as that from 4 to 6. Some judges do not, for one reason or another, stick to this rule. A very conservative judge, for example, will be unable to distinguish units on the radical end of the scale. Socialists, communists, and Trotskyites may all look alike to him.

There is some evidence [*cf.* Murray (1938)] that this is a general problem in judging human nature. Men generally rate most accurately the personalities of those most resembling themselves; judgment of those markedly different is less accurate. It is difficult to correct such a basic distortion; we can only suggest (1) that judges should be carefully selected to exclude extremists, particularly in the field being studied; and (2) that the individual who is often called upon to make judgments of personality ought to cultivate a middle-of-the-road position and make a special attempt to understand people who are quite different from himself.

Halo Effect.—Perhaps the most persistent and most annoying of all errors in personal judgment is the *halo effect.* This term relates to the following type of mistake. Because Sam is excellent in schoolwork, his teacher rates him high on character. Because Dick is rebellious and disobedient, she rates him low on general intelligence. The term "halo" means that from some central fact—friendship, high intelligence, beauty, or some other trait of importance to the judge—an influence radiates out to change the ratings on other traits.

The halo effect has so far proved to be the most troublesome of all problems in rating. It is particularly operative when a judge is asked to estimate several different traits of the same person in succession. The perception of personality tends toward a *Gestalt,* an integrated pattern. It thus becomes difficult to make independent judgments about specific aspects of an individual. This may explain the fact that long acquaintance does not automatically make for valid judgments. We may simply

[8] The technique of preparing standard scores from ratings, test scores, or other raw figures will be found in elementary textbooks on statistics. Limitations of space do not permit inclusion of detailed instructions in this volume.

become more and more confirmed in our *incorrect* judgments of a personality.

Stereotypes.—Closely akin to the halo effect is the error resulting from the formation of stereotypes. A person who holds the stereotyped view of Negroes as lazy, happy-go-lucky, ignorant, and dirty can scarcely give an accurate rating of a Negro who has earned a Ph.D. degree in nuclear physics. The judge sees only his mental picture, not the real person.

In research work, the stereotype error may be avoided by withholding information as to racial, religious, national, and other group affiliations. In employment, merit rating of workers, and similar situations, the stereotype often sets the scene for injustice to the employee and inefficiency for the company. Scientific education in the close resemblances of all groups reduces, although it does not eliminate, this error in rating. Prevention, through primary education which forestalls the formation of these incorrect pictures, is the most hopeful approach for long-range purposes.

The Good Judge of Personality.—Not all the errors in ratings are due to the five defects listed above. To some extent we must take account of the qualifications of the judge. Every study of personality in terms of its social-stimulus value involves two variables—the personality being judged and the personality judging. What are the characteristics of the good judge of personality?

Gordon Allport (1937) has summarized a number of investigations relating to this problem. On the basis of these studies and his own extensive experience, he specifies eight features of individuals who do well at judging personality traits in others: experience; similarity to the person being judged; complexity of personality; intelligence; insight into his own irrational traits; detachment; an "aesthetic attitude" (trying to appreciate rather than analyze others); and social intelligence (tact, skill, sympathy).

Further validation of this listing is found in the fact that the best judgments of personality undoubtedly are made by clinical psychologists, psychiatrists, and psychoanalysts. The competent clinician either possesses inherently or develops through practice most of these eight characteristics.

Improving Judgments of Personality.—Since everyone makes ratings, consciously or unconsciously, of his friends and associates, any effort to develop these eight characteristics will prove beneficial. Attention to the errors in rating procedures, described above, can also result in decided improvement. Both clinical and industrial workers (*e.g.*, using merit rat-

ings) develop more reliable and valid techniques of rating as a result of instruction and practice.

Personality as Response

Today, most psychological work is being done from the point of view which considers the essence of personality to be a set of *intervening variables* between the external stimulus and the final pattern of behavior. Most studies of responses, therefore, are really planned to identify inner perceptual and motivational patterns, and are not focused primarily on the observable behavior as such. It thus becomes somewhat arbitrary to distinguish, in many instances, between investigations of "personality as response" and "personality as intervening variable." The distinction, nevertheless, seems to have a certain utility.

When an investigator's attention seemed directed primarily to a tallying of responses, his technique has been classified in this group, even though his final interpretation assumed the existence of inner patterns. When the investigator has made it explicit that he is seeking manifestations of an inner tendency by studying responses to standardized situations, we have classified his work in the "intervening-variable" category.

Behavior Descriptions.—A precise statement of the behavior of an individual in a wide variety of real-life situations might well be the most valuable of all materials for the study of personality. Unfortunately, such careful records are all too rare. Attempts to collect behavior descriptions from daily life run into practical problems of recording: if the person is brought into the laboratory, his reactions are changed by the artificial situation. Sometimes one attempts to collect descriptions of the past behavior of an individual; in this case, memory failures and distortions interfere with the results. Nevertheless, it may be suggested that the first and generally most desirable type of personality study is that based on descriptions of actual behavior.

Behavior Sampling.—A detailed account of all the significant behavior indulged in by a given individual from birth to maturity would be an excellent vehicle for personality study; but the task of collecting, let alone analyzing, this material would be overwhelming. It is easy, on the other hand, to record *samples* of behavior (crying, laughing, talking, fighting) and if these samples are properly distributed, they should give an adequate picture of the extent to which such responses characterize this person. If made on a random sample of children, they give a good indication of the "normal" personality for that age level. Such samples, of course, must be made on groups of different economic, cultural, sex, and age categories if we are to determine the relations between personality

and these variables. After such data have been collected, an individual can be evaluated for normality by comparing him with these standards.

Miniature Situations.—It is not necessary to follow a person around, waiting for him to encounter significant stimuli. We may subject him to situations calculated to elicit responses of the type that we want to investigate. As these experiments attempt to duplicate on a small scale the essentials of real-life conditions, they will be identified as miniature situation studies. Three of the best-known are described here as illustrations.

Level of Aspiration.—In this experiment the subject is asked to perform some skilled task, such as throwing darts at a target. He is given his score on this trial, and asked to make a bet as to how well he will do on the succeeding trial. Some individuals show high levels of aspiration, others are afraid to predict any improvement. While this looks intriguingly like a key to some basic problems of conceit, inferiority feeling, overambitiousness, and the like, some investigators—*e.g.*, Gould (1939)—give discouraging reports. They find that one's level of aspiration in a single function, such as dart throwing, may be unrelated to his level of aspiration in card sorting or maze learning. This, if correct, indicates that a single miniature situation is not a valid device for predicting aspiration behavior in everyday life. Further research may show that a proper choice of miniature situations will give a more satisfactory prediction.

Cattell's CMS Test.—It is possible to skeletonize a test situation even more. Cattell (1941) has turned entirely away from meaningful content and presents his subjects with a purely artificial task. This involves marking with a pencil on a moving strip of paper, canceling certain lines and circling others in obedience to a fairly complex set of instructions. Cattell reports a corrected reliability of .91 for his test, which is unusually high. When he administered the test to men in a college club, he found that the scores on the test agreed surprisingly well with their ratings of each other as to personality traits. Notable were high correlations with cautiousness and foresight (which might be expected to determine the subject's behavior on the CMS test).

Downey Will-Temperament Test.—This, the first of the truly objective personality tests, uses handwriting, in contrast to Cattell's lines and circles. Experimental conditions were varied to induce the subject to show "resistance to opposition," "interest in detail," "finality of judgment," etc. Unfortunately, extensive use of the test has led to the conclusion that it does not meet established requirements as to either reliability or validity.

Expressive Movements.—If, as Watson, Guthrie, and others have suggested, personality is simply a characteristic pattern of responses, it should be exceedingly fruitful to study such expressive movements as voice, gesture, and handwriting. Indeed, the harvest here has been encouraging, although far below the claims of the commercial graphologist,

for example. Because of the specialized nature of this field, we are postponing discussion of the research methods employed to Chap. XII.

Summary

Everyone studies personality. As opposed to popular devices, the scientific study of personality is distinguished by consideration of reliability, validity, and objectivity. In accordance with the three approaches to a definition of personality outlined in Chap. I, techniques can be divided into three groups. Two of these have been considered in the present chapter.

Personality as stimulus is investigated chiefly by the rating technique. Ratings are useful, but subject to numerous errors. Both reliability and validity of ratings can be appreciably increased by due consideration of (1) characteristics of the rater, and (2) technique of making and summarizing ratings.

Personality as response may be studied by behavior samples and miniature situations. The miniature-situation technique is hopeful, although it is difficult to find such tests which will adequately predict the individual's behavior in life situations. Behavior samples are useful in young children, and samples of functions such as gesture and handwriting may yet be found useful in the analysis of the adult personality.

Suggestions for Reading

An interesting book in this field, received too late to influence our presentation, is Eysenck's *Dimensions of Personality.* Chaper 4 of Hunt's *Personality and the Behavior Disorders* gives a good treatment. Old, but not too badly outdated, is Symond's *Diagnosing Personality and Conduct.* An excellent introduction to some theoretical problems in measurement is given, but on a rather technical level, in Burt's *Factors of the Mind;* less mathematical but still heavy is Cattell's *Description and Measurement of Personality.* The best discussion of factors influencing judgment of personality will be found in Allport's *Personality: a Psychological Interpretation.*

CHAPTER III

METHODS IN THE STUDY OF PERSONALITY (Continued)

Personality as Intervening Variable

In the preceding chapter, methods were described for studying quantitatively (1) the *impression* made by an individual upon his fellows, and (2) the specific *responses* which lent themselves to this kind of investigation, and which were studied largely as responses, rather than as indicators of inner organizational tendencies.[1] We may refer to these two approaches as peripheral, in the sense that they relate to aspects of personality closely meshed with the environment (*cf.* Fig. 5, page 68).

In contrast with these methods, we may set up a group of techniques avowedly directed at the determination of inner organizational patterns, the *intervening variables* between stimulus and response which were asserted in Chap. I to give the optimum basis for a definition of personality. Here again we shall find it necessary to distinguish between relatively shallow and deep penetrations; some methods are almost peripheral in character, while others go nearer to the very foundation upon which each individual personality is erected.

The Interview

Strictly speaking, the interview is not a measuring device, inasmuch as it ordinarily produces quantitative records only in the form of ratings of stimulus value. Interviewing is none the less a scientifically valid method of studying personality. It presents a relatively uniform situation to various individuals, and the differences in their responses allow us to infer underlying personality patterns. Further, the interview as conducted by a trained psychologist or psychiatrist produces information of greater value than ratings by casual acquaintances. The expert will know what

[1] This statement is, of course, only relatively true in any event, as all students of personality, regardless of their formal orientation, have implicitly recognized the function of inner patterns which could not be identified with the externally observed responses. This note is particularly relevant to Cattell's work, which assumed the existence of implicit patterns.

he is looking for, how to elicit it, and how to interpret the evidence when obtained.

Interviews may be classified in many different categories. Psychologists are mostly concerned with the *origin, form,* and *purpose* of interviews. An individual may come voluntarily for advice and assistance on personal problems, or he may be asked to come. The interview may follow a rigid plan, or it may be free and informal. The purpose of the interview may be to *diagnose* a personal difficulty, it may be to *treat* this condition, or it may simply be to *investigate* a generalized problem. We are concerned in this volume only with the study of the normal personality, and in accordance with this orientation we shall omit discussions of the problems involved in interviewing abnormal personalities for diagnosis or treatment.

Standardized versus Informal Interviews.—The purpose of the interview is to obtain information. Questions are put to the subject regarding his daily behavior, his dreams, his wishes, or any other topic. To get the maximum information, it is necessary that *every* appropriate question be asked; it is also essential that no important items be shut off by preventing the individual from describing his actions freely. It will thus appear that the optimum is somewhere between complete standardization and a completely formless interview. The proper compromise seems to be to have the interviewer either memorize his items or unobtrusively check off from a list those items which have been adequately covered.

Diagnostic versus Research Interviews.—We may designate interviews differently as they are intended primarily to study a single personality or to make comparisons between different personalities. Arbitrarily we propose to call the former *diagnostic* and the latter *research* interviews.[2]

A diagnostic interview must necessarily be intensive and detailed; at the same time, it must allow the subject a maximum of freedom, for the psychologist cannot know in advance the unique features of the personality. Here the extremely free type of interview urged by Rogers (1942) will be of value. It develops, in fact, from the psychoanalytic interview devised by Freud (1920), in which the patient was expected to say absolutely every thought which came to mind. In this situation, personality problems (or the topics of greatest importance) quickly come to the surface.

[2] This is arbitrary in the sense that one might easily do research on a single individual, although most research today seeks common tendencies rather than unique patterns; however, one would not know that his subject was unique if he did not interview any other individuals. Similarly, interviews of a whole series of persons may help the interviewer in his diagnosis of each individual.

So far, this very free interview seems to be an excellent diagnostic (and curative) technique.

Research interviews will necessarily be channeled somewhat along predetermined lines. In an attempt to determine the qualities of a successful "sales personality," for example, we might not try to understand each salesman as a unique individual. Emphasis would rest on the common features of the good, as opposed to the poor, salesmen. The extreme of this trend toward uniform questioning is found in the type of interview which rigidly follows a printed set of questions (*cf.* Jackson, 1946). The only advantage such interviewing has over a questionnaire is that the interviewer can observe blushing, hesitation, and similar signs of emotion relating to a given question and can rate certain peripheral traits. If no attempt is made to follow up such leads, the momentary advantage is quickly lost.

Word Association.—A specialized technique for getting information in an interview situation is the *free-association* method. In this case emphasis is placed upon getting behind the "mask" or superficial personality to deeper organizational patterns or to specific emotional complexes.

Discrete Association.—Jung (1918) pioneered in the use of a single stimulus, single response association method. The instructions stress speed of response: "Say the very first thing that comes to your mind." Reaction time is usually taken with a stop watch. It is presumed that an emotional problem has been encountered when any of the following symptoms appear: very long reaction time or complete failure to respond; blushing, fidgeting, squirming; laughing and giggling; irrelevant response word; peculiar response word; and repeated use of the same response. A very short reaction time, if coupled with a response of doubtful relevance, is also considered suspicious.

Continuous Association.—Psychoanalysts commonly use a different form of free association, in which the subject continues to verbalize everything called to mind by the stimulus word until he runs dry or is blocked. The point at which blockage occurs is commonly found to be an indicator of repressed material. Analysts, in selecting from the mass of associated material, are likely to consider as significant (1) connections occurring frequently, and (2) connections associated in time with intense emotion, even though no logical relationship between idea and emotion is apparent at the moment.

Without formally introducing either type of association test, the skilled interviewer collects clues based on these approaches. The diagnostic signs of emotional complexes are carefully noted. The sequence of topics discussed reveals patterns of association in the person's mind. Blockages

and strong emotional reactions to particular topics are singled out for intensive study. In our everyday conversations, too, these clues provide valuable data for understanding the personalities of our friends.

Reliability of Interviews.—It is generally agreed that single interviews are not reliable enough for predictions about the performance of a specific person, unless the interview is fairly long and is focused upon some clearly defined trait.

Employment interviews, for example, are often made by persons not especially trained in the use of this method, and experimental studies have shown that such interviews are usually of low reliability. Hollingworth (1922) reports a study of sales managers which is highly convincing on this point. He had 57 men, applicants for selling jobs, interviewed by each of 12 sales managers, successful men who had hired many salesmen. The results were utterly chaotic. One applicant ranked at the top of the list with one manager and at the bottom (fifty-seventh) with another. Every applicant received widely different ratings from at least some of the managers. While Hollingworth does not compute the average intercorrelation of his interviewers, it is clear from the data that these men, who had considerable experience, were not at all reliable.

Part of the difficulty in the Hollingworth study may have been that each manager had a different conception of what he was looking for. Newman, Bobbitt, and Cameron (1946) report a study of interviewing in the Coast Guard. A psychologist and a psychiatrist independently interviewed and rated about 400 men and 100 women officer candidates. The rating was on ability to pass the training course and to withstand the pressures of service life. Correlations were .83 (men) and .85 (women). A combination of *trained interviewers* and *clearly defined objectives*, then, can give reliable data.

Validity.—Reports from interviewers are subject to all the errors found in testimony in criminal trials. Observation may be careless, memory poor, and imagination active. The "halo" effect may operate: an interviewer who values neatness of dress may overestimate character, intelligence, and other qualities of a very neat applicant.

Interviewers are often guilty of projection (see Chap. VII); *i.e.*, they read their own biases into the subjects before them. Rice (1929) mentions two interviewers in a relief shelter for transients, one an ardent Prohibitionist, the other a confirmed Socialist. Though both interviewed cases at random, one found most of these homeless men to have met their fate at the hands of the Demon Rum; the other found the capitalist system chiefly responsible.

Interviews may also lack validity because they are made in an unrealistic situation. The peace and quiet of a personnel office may bring out in the subject behavioral tendencies quite different from those that he will show under pressure. Hence Freeman *et al.* (1942) developed the *stress interview* to study personality under pressure of criticism, distraction, and excitement. They report the results

to be substantially more valid (in selection of police officers) than judgments made under normal, quiet conditions.

Despite these difficulties of reliability and validity, the interview is still our only method for much personality work. We can improve it in these ways: (1) by training interviewers to use the clues noted above and in other ways to become good judges of personality; (2) by setting up realistic situations for interviewing; (3) by avoiding the pitfalls of ratings; and (4) by introducing objective checks such as formal tests, wherever possible, to detect and counterbalance errors made by the interviewer.

The Questionnaire

As has been noted above, the highly formalized interview can often be transformed into a questionnaire. Instead of reading off lists of questions, one may hand them to a subject, who will answer them independently. This saves a great amount of time and, for some subjects, actually increases frankness of answers. On the other hand, it loses the various clues which can be picked up in the interview procedure.

While the first questionnaire of this type would seem to have been used by Burt (1915), his questions were framed to be answered by an observer, not by the subject himself. The first self-test of this type is Woodworth's Personal Data Sheet [see Hollingworth (1920)] and, as it fits into the characteristic American pattern of efficiency and mass production, the technique has mushroomed in this country on an amazing scale. Burt and his colleagues in England, however, are using questionnaire tests of personality extensively, and the tests are spreading both to Europe and to Latin America.

Despite the great number of tests in circulation and the volume of research literature regarding them, American psychologists are by no means convinced of their validity. As shown in Table 1 (p. 23), a cross section of psychologists working in this field gives but doubtful approval to inventories and questionnaires. On theoretical grounds, it would seem that verbal questionnaires ought to be valid; personality is unquestionably closely involved with language and the symbolic structure within the individual. As we shall see, however, many difficulties arise when we attempt to explore this inner pattern by direct questioning.

Assumptions of the Questionnaire Technique.—It will be helpful in assessing the questionnaire-inventory procedure if we examine some sample questionnaires and the assumptions made in constructing them.

Common Traits.—The first and most basic assumption of all questionnaire tests is that people can be scaled on common psychological char-

acteristics in the same manner that they can be measured for height and weight. While this may seem self-evident, not all psychologists agree. Many feel that, while we can apply certain common trait names to different people, the trait has a unique pattern and expression in each individual. Thus they would argue that, while Joe and Jim both score very high on dominance, the trait is not necessarily the same in both. Perhaps one succeeds in leading people because of his kindly manner, while the other attempts to be autocratic and consequently is a poor leader.

The problem of common and unique traits will be analyzed at greater length in Chap. VIII. At present we wish only to suggest that trait names are regularly used to describe people with little confusion resulting, and hence that common traits must have some reality. Joe and Jim have one characteristic in common—dominance; they differ on other characteristics, such as friendliness and sociability.

The Quantitative Theory of Traits.—The second clear assumption of questionnaire tests is that the more items one answers in a given direction, the stronger is the trait in question. We may illustrate this by referring to a sample of the questions in Woodworth's Personal Data Sheet (Table 2). Answering these questions in the manner indicated in

TABLE 2.—QUESTIONS INTENDED TO TEST "EMOTIONAL INSTABILITY" [1]

1. Do you usually feel well and strong? (no)
2. Do you usually sleep well? (no)
3. Are you frightened in the middle of the night? (yes)
4. Are you troubled with dreams about your work? (yes)
5. Do you have nightmares? (yes)
6. Do you have too many sexual dreams? (yes)
7. Do you ever walk in your sleep? (yes)
8. Do you ever have the sensation of falling when going to sleep? (yes)
9. Does your heart ever thump in your ears so that you cannot sleep? (yes)

[1] From Hollingworth (1920).

parentheses is presumed to be indicative of a tendency toward emotional instability or neurosis; the individual's score is the sum of the items answered in this manner. These items were taken from actual case histories of neurotics; it was assumed that the more of these symptoms a person had, the more he was susceptible to a neurotic breakdown.

Actually, it is probable that the possession of *one* specific symptom might be more indicative of a trait than possession of two or three others. To some extent, this has been taken care of in recently developed inventories by *weighting different items* according to their diagnostic value (*cf.* the Bernreuter items shown in Table 3). Some tests, like the Rorschach, utilize a flexible scoring system, which adds up certain types of responses

but permits the examiner to use his judgment in stressing individual responses which seem unusually significant.[3]

Multiple-trait Significance of Items.—The Woodworth, Thurstone, and other questionnaire tests assumed that the answer to a given question was diagnostic of one and only one trait. Bernreuter (1931) seems to have been the first to suggest that a specific act might justify being scored for more than one trait:

"In searching for a method whereby the shortcomings in the present tests might be overcome, a psychological analysis of observed behavior was made which resulted in the belief that the behavior of an individual in a single situation may be symptomatic of *several* traits, in varying degrees, rather than of a single trait, as has been assumed. On the basis of this belief, a new method of constructing tests for personality traits is proposed. This new method, which is referred to as the method of 'differential evaluation,' consists of the determination of the extent to which the response to a single question is symptomatic of several traits."

Thus an examination of Table 3 indicates that a person answering "Yes" to the item, "Can you stand criticism without feeling hurt?" resembles closely the validating group which was low on "neuroticism" or emotional instability; but there is also a moderate probability that he resembles the groups high on self-sufficiency and dominance and low on introversion. The scoring weights, in other words, are estimates of the *relative probability* that this specific item indicates the presence of the specified trait.

Internal Consistency.—It is assumed that the items in such a questionnaire must be internally consistent, *i.e.*, must agree in direction of answer with that of a majority of the items in the test. This can hardly be debated. It would be improper to include "liking baseball" in a test of introversion if people who were introverted or extraverted according to the other questions did not differ in their answers to this one. Whether internal consistency is the only item validation required is another matter. Many experts feel that each item must be independently valid, not merely valid on the basis that it correlates with the other items.

Reliability.—Since there are so many questionnaire tests, remarks about reliability must be general rather than specific. In Table 4 are given corrected reliability coefficients for some widely used tests. These are based on *split-half* correlations; usually the scores made on odd-

[3] The Rorschach, of course, is not a questionnaire test, and this is not standard procedure on any questionnaire. The author and many other psychologists, however, habitually examine the answers to specific questions, as well as total scores, when using questionnaires for guidance purposes.

TABLE 3.—ITEMS AND DIFFERENTIAL SCORING WEIGHTS FROM THE BERNREUTER PERSONALITY INVENTORY [1]

Item	Scoring weights—"Yes" answer			
	Neuroticism	Self-sufficiency	Introversion	Dominance
1. Does it make you uncomfortable to be "different" or unconventional?	+2	−4	+1	−3
2. Do you daydream frequently?.....	+5	+1	+3	−1
3. Do you usually work things out for yourself rather than get someone to show you?.....	−2	+3	−1	+1
4. Have you ever crossed the street to avoid meeting some person?.....	+2	−2	+1	−2
5. Can you stand criticism without feeling hurt?.....	−6	+3	−3	+3

[1] Reproduced by permission of Stanford University Press.

numbered items are correlated with those on even-numbered items. As noted in Chap. II, if one half of a test did not agree with the other half, we should not have much confidence in the total score. These reliabilities are generally high enough so that we can rely upon the test results in measuring differences between groups; many of them are not high enough to justify reliance upon the diagnosis of an individual on the basis of the test scores.[4]

Validity.—Much more serious is the question of validity. In view of their wide usage, it is important for us to ask, Do personality inventories give a reasonably true measure of the traits they claim to measure?

Certain questions have been validated by administering them to groups selected by some outside criterion. Thus, Neymann and Kohlstedt (1929) gave their scale to schizophrenic and manic-depressive psychotics, following the assumption that these two psychoses represent the extremes of introversion and extraversion respectively. The various scales of the Minnesota Multi-Phasic Personality Inventory have been developed on this theory. Both of these tests, however, have been at-

[4] As the split-half correlation really measures the reliability of the half-length test, it must be corrected to show the reliability of the full test. The figures in Table 4 are corrected in this manner (Spearman-Brown formula).

TABLE 4.—RELIABILITIES OF SOME REPRESENTATIVE PERSONALITY QUESTIONNAIRES
(Split-half, corrected)

Test	Trait	Investigator	Reliability
Allport A-S	Ascendance	Ruggles and Allport (1939)	
Form for Men			.85
Form for Women			.77
Neymann-Kohlstedt	Introversion	Guilford and Braly (1931)	.90
Diagnostic Test		Root and Root (1932)	.63
Thurstone Personality Schedule	Neuroticism	Thurstone and Thurstone (1930)	.95
Bernreuter Personality Inventory	Neuroticism	Bernreuter (1933*a*)	.90
	Self-sufficiency		.84
	Dominance		.88
	Neuroticism	Stagner (1934)	.88
	Self-sufficiency		.80
	Dominance		.85
Guilford STDCR	Social introversion	Guilford (1940)	.90
	Thinking introversion		.84
	Depression		.94
	Cycloid		.88
	Rhathymia		.90

tacked on the ground that their scores do not correctly identify new groups of abnormal cases diagnosed as resembling the original validation groups.

Pescor (1945) reports a rather high validation in terms of the most exacting criterion, predictive value, for the Woodworth schedule. The test was administered routinely to 800 male admissions to a prison. On the basis of the scores, it was predicted that 30 of these men would develop neurotic-type difficulties in the institution; the prediction was verified for 29 of these. The test missed four men who also developed neurotic symptoms. Pescor thus concludes that the test has an estimated validity of 85 per cent in terms of prediction.[5]

In contrast to these studies, various investigations discount the validity of questionnaires. Harriman (1938), for example, found the Woodworth schedule unsuccessful in predicting which college students would develop personality difficulties. Munroe (1945) reports likewise for the Bernreuter inventory.

[5] Page (1945) reports that the Bernreuter scale picks neurotic soldiers with a high degree of accuracy. Hunt and Stevenson (1946) report that questionnaire tests picked 50 to 90 per cent of soldiers later found to be neuropsychiatrically unfit, while erroneously picking only a few satisfactorily adjusted men.

One interesting point is suggested by a consideration of the studies in which the questionnaires made valid predictions and those in which they did not. This is that in a *stressful* situation (prison, army life) predictions seem more accurate than in the peaceful environs of a college community. If protected against undue strain, the preneurotic personality may maintain stability, whereas a breakdown is precipitated by conflict and frustration. Further, we know that many college students develop rather substantial personality deviations without being discovered. The failure to predict college problems is thus not solely a criticism of the test.

A second point relates to the use of abnormal groups as criteria in setting up scoring schemes for such tests. The choice of a zero point, or reference point, in preparing these score values makes a considerable difference in the statistical properties of the scale. This may be illustrated by a particularly clear example, that of vocational interest patterns. Strong (1943) reports that the scoring keys for lawyer and accountant (*i.e.*, identifying the interest patterns of men successful in these fields) were prepared twice: once when the comparison group was composed of other professional men and businessmen, a second time using skilled workers. In the first instance, there were many differences between lawyer and accountant (keys correlated −.42); but in the second case, they were found to be much alike (keys correlated .61). The use of workers as a comparison standard highlights the *resemblances* between lawyer and accountant, whereas the business-professional standard emphasizes the *difference*. We may be justified in saying that, from the distant reference point of the worker, lawyers and accountants look alike; from the close-up view of the business-professional group, differences are obvious.

This would suggest that a test prepared with a scoring key based on neurotics or psychotics may give different results from one based on maladjusted normals; the latter would probably bring out minor differences within normal populations, but might not distinguish normals from abnormal cases.

Validation of questionnaires by the judgment of intimate acquaintances is also contested. McKinney (1937) reports that students selected by their fraternity brothers as well adjusted and poorly adjusted differ significantly in their scores on the Thurstone Personality Schedule (neuroticism). Bonney (1943) correlated total score on the California Test of Personality with sociometric choices and obtained a coefficient of .49—indicating that persons most often chosen as companions are those who have relatively desirable personality traits.

On the negative side are such studies as those of Landis, Gullette, and Jacobsen (1925) and of Oliver (1930), who have reported very low

and insignificant correlations between questionnaire scores and ratings by friends. It is noteworthy that the more recent studies and those using tests of later vintage seem to report more significant validation by this criterion.[6]

Another common test of validity applied to questionnaire tests is the rating of teachers. Numerous studies report the correlation of pupil test scores with ratings by teachers: on the side favorable to the tests we may mention Keys and Whiteside (1930), Naccarati and Garrett (1924), and Roslow (1940). On the other hand, very poor validation is observed in the data of Flemming and Flemming (1929) and Clark and Smith (1942).

As we have noted in Chap. II, there is reason to doubt that ratings by either friends or teachers constitute adequate criteria for the validation of any except the most superficial personality test. Questionnaire tests, for the most part, attempt to penetrate deeper than the "mask," which is directly perceptible to outside observers. Neither teacher nor friend sees the total personality; each is likely to observe one aspect, influenced by the authority relationship, by play and fun situations, or by some other external factor. Thus the endorsers of questionnaire tests are inclined to accept evidence of validity, when found, and to disregard low correlations as reflecting spurious errors. We are disposed to accept this verdict and to conclude that, on the whole, rating studies support the validity of questionnaire tests in general, although not necessarily of every single test.[7]

Various a priori criticisms are also made of questionnaires. Thus, it is alleged that subjects distort their answers to make a good impression, that they answer in terms only of their ideal personalities, or that their answers are determined by temporary moods. To counter these objections, we can point out that correlations after periods of 1 to 6 years [Crook (1941)] are quite high, hence that mood can hardly be a factor; and that students directed to attempt to make a good impression or to reveal their ideals (Bernreuter, 1933b) give answers markedly at variance with their responses under the usual instructions. This finding would, however, indicate that such tests are not dependable in situations

[6] The validity of profiles (patterns of trait scores) seems to be higher than that of individual scores [Super (1942); Schmidt and Billingslea (1945)]. This seems entirely plausible. We know our friends as whole personalities, not as collections of independent traits.

[7] It is, of course, very poor logic to lump all inventories together as we have done in these pages. Some of these tests may be valid, while others are not. We have attempted in this section to evaluate techniques, rather than tests.

strongly impelling the person to *try* to make a good showing—*e.g.*, when applying for a job.[8]

The Problem of Interpretation.—At least part of the difficulty encountered by questionnaires has resulted from the lack of a systematic distinction between *what they are* and *what they mean.* Woodworth started with the idea that he could, from his inventory, tabulate the number of *responses* resembling those of neurotic patients. What he overlooked was the inherent ambiguity of many of the symptoms as described. It was soon found [*cf.* Eisenberg (1941)] that the same item is interpreted in quite different ways by different individuals.

This defect is fatal if we assume that the questionnaire must tally *responses.* If, however, we consider the inventory as an approach to *internal organization,* the ambiguity is not necessarily so important. We may, indeed, devise questionnaires whose value rests on their ambiguity, as Wolff (1943) and Sargent (1944) have done. In these instances it is correctly recognized that the subject's response is a fact in itself and should be studied in itself. When an individual says, "I blush easily," that is an important statement. Even if it disagrees with direct observation—and it may—*the existence of such a mental picture of oneself is very important to the psychologist.*

Projective Methods

As formal procedures for studying personality, the so-called "projective" techniques are about as old as the questionnaire; Rorschach published his *Psychodiagnostik,* the first systematic use of ink blots, in 1921. While similar devices had been used earlier, their value as approaches to personality was not perceived.

The term "projective tests" has come to be applied to all methods facing the person with an "unstructured" situation, in which his responses are not determined by the outer stimulus and hence must depend upon inner conditions. Rorschach asked his subjects to look at an ink blot (similar to that shown in Fig. 4) and tell "what it might be." Murray (1938) presented rather vague pictures and asked for stories to which the

[8] Another occasional criticism of questionnaire inventories is that merely by chance one can obtain either a maladjusted or a normal score. Burnham and Crawford (1935) rolled dice to get arbitrary answers to the Bernreuter inventory, and found that in some instances the dice were "neurotic" or "dominant." Until subjects start answering questionnaires in this way, such data are of course meaningless. The high constancy of scores and even of answers to specific questions makes it clear that the average person taking such a test does not answer at random.

pictures might serve as illustrations. Other ambiguous stimulus materials have been tried. All have in common the fact that the subject must organize the situation; the meaning must be projected from his own mind.

Such methods have one intrinsic superiority to the word-association, interview, and questionnaire procedures: that, in the purely verbal techniques, conscious control and concealment are easier. A person wishing to cover up may give definitions to word-association stimuli; he may



FIG. 4.—Ink blot. This is similar to those used by Rorschach. How many "things" can you see in this one? Outlines, shading, etc., may give suggestions.

make "good" rather than "true" responses in the interview and questionnaire situations. To the projective test no such easy evasion is available. In this case, the subject cannot discern what he ought to say; logic is not of any assistance. What he produces must come from within himself, not from the world of external reality.

Just as we could not, in the limited space available, examine more than a fraction of the material on ratings or on questionnaires, so we cannot indicate more than the broad outlines of the studies on unstructured tests. Although the Rorschach test, as the outstanding representative of the field, will be treated more fully than the others, we can merely touch the major points.[9]

[9] Klopfer and Kelley (1942) give the best general introduction to the Rorschach technique. There is no book in print which does a comprehensive job of evaluating the evidence, both positive and negative, in an impartial manner. Most discussions are clearly biased for or against the test.

The Rorschach Test

"Structured" test situations interfere with the free expression of personality trends, because each of us has learned to do things in the correct and proper way. Verbal material has a strong tendency to set off logical definitions or culturally approved stereotypes which do not truly represent the inner personality structure. Rorschach therefore sought a device to stimulate associations of ideas which would be relatively free from such cultural influences. His use of ink blots would appear to have been a happy solution to the problem.

Each ink blot (*cf.* Fig. 4) is symmetrical, irregular in outline, varied in shading, and susceptible to a number of interpretations. Out of several hundred blots, Rorschach selected 10 which gave a rich variety of responses; most of the enormous Rorschach literature has been based on these 10 ink blots.

Administration.—The subject should be relaxed and at ease as far as possible. The idea of a "test" should be dispelled by emphasizing the absence of right and wrong responses.

Instructions are intended to favor complete freedom for each individual to handle the cards in his own way. Klopfer and Kelley suggest the following: "People see all sorts of things in these ink-blot pictures; now tell me what *you* see, what it might be for you, what it makes you think of."[10] The examiner attempts to record the subject's exact words, time between responses, and significant gestures.

After the responses have been completed, it is necessary to run through the cards again for an *inquiry* into factors influencing the responses: the *location* on the card of each item seen and the *determinants* of the response, especially color, shading, and form.

Interpretation.—After the responses have been tabulated and scored,[11] an interpretation is prepared. Some of the major factors presented for interpretation are the location of responses, the use of form, the reaction to color and shading, and the perception of movement. Relatively less attention is paid to the actual content (animals, objects, landscapes, etc.) reported.

Location.—It is alleged that a preference for using the whole blot (*W*); a large, obvious detail (*D*); or a tiny detail (*d*) can be interpreted as a manifestation of a general personality tendency. "A relatively high number of *W*, according to the tradition of the Rorschach literature,"

[10] *The Rorschach Technique,* p. 32. Reprinted by permission of World Book Company, publishers.

[11] Scoring the Rorschach requires considerable technical training. We shall not even attempt to outline the method here.

write Klopfer and Kelley, "represents an emphasis on the abstract forms of thinking and the higher forms of mental activity."[12] This encouraging promise of a new approach to intelligence testing is slightly dashed by the comment, on the same page, that *W* responses are also likely to indicate certain kinds of mental defect, such as severe brain injury.

The extensive use of *D* (large detail) responses is said to indicate attention to the routine problems of daily life; a concentration upon *d* (tiny details) is related to a critical attitude or an overconcern with trivialities.

Movement.—Many subjects perceive a kinesthetic quality, a feeling of action, in the blots: "two clowns playing pat-a-cake," "kicking feet," "two bears climbing." These movement (*M*) percepts are said to be indicative of richness of inner life, imagination, and creativeness. Animals in motion (*FM*) are considered to represent a more infantile level of fantasy, which has not been brought into an adult relationship with external reality.

Color.—Cards II and III contain colors in addition to the black-gray outlines of the other blots; and VIII, IX, and X are entirely chromatic. Great stress is laid on differences in reaction to these as compared with the achromatic cards.

Generally speaking, *C* (color) responses are related to the outer world, in contrast to *M* which is identified with inner strivings. Thus the *M*:*C* ratio is employed as an introvert-extravert indicator. Persons with a marked excess of *C* over *M* are said to be *extratensive,* controlled chiefly by outer stimuli; they are impulsive in response to external stimulation. An excess of *M* indicates responsiveness to inner impulses. A decided lack of *C* responses is considered an indication of avoidance of emotional stimulation, often even a fear of becoming emotionally aroused.

Relations among Determinants.—Some overenthusiastic Rorschach advocates offer sweeping statements regarding the significance of a definite sign. Well-considered writings emphasize a kind of check-and-balance system in interpreting the test: the significance is thus and so, unless something else is present. While this point of view is eminently realistic, it is sometimes discouraging to the student trying to learn precisely what the test is measuring.

Reliability.—Because of the insistence by most Rorschach experts on the interpretation of the record as a *Gestalt,* in which single scores cannot legitimately be isolated for statistical analysis, most of the studies of

[12] Klopfer and Kelley (1942), p. 259. Reprinted by permission of World Book Company, publishers.

reliability of the test have been made by its critics. This is perhaps unfair, in that they may not have done adequate justice to the possibilities of the test. However, a *Gestalt* cannot be more reliable than the parts that compose it; a square in which one side is a variable quantity ceases to be a square. We believe, consequently, that the specific scores obtained ought to show reasonable reliability, either on a split-half basis or on retests separated by a few weeks.

Vernon (1933) reports split-half reliabilities on a group of 90 subjects. Most of these are distressingly low, the highest being .62 for *M*. The *C* score, on which a good deal of emphasis is placed, had a self-correlation of only .34, making it a rather fluctuating measure on which to base any interpretation whatever. Hertz (1934) is more encouraging. For her group of 100 she reports a reliability on *M* of .74, and .81 for per cent *C*. These figures compare well with many inventories of the objective type. Thornton and Guilford (1936) used a five-step classification for *M*:*C* ratio (introversive-extratensive tendency) and found that the ratio for alternate sets of five blots agreed in 55 per cent of the cases, whereas only 20 per cent would be expected by chance. While this is significant, we might still wish for closer agreement.

Not many retests of the same individuals have been published. Hertz (1942) compares the records of the same subjects at twelve and fifteen years of age. The highest correlation is .50 (for the *M*:*C* ratio) with most figures in the .30-.35 range. It must be noted, however, that some of these variations may reflect true personality changes, since these three years make up an important part of the life span.

Orthodox practitioners of the Rorschach technique have objected to these studies of reliability on the ground that the record is interpreted as a whole, not by these separate scores. Using larger aspects of the Rorschach picture, Fosberg (1941) has found reliability coefficients as high as .91, which is exceptional even for objective material.

Munroe (1945) has developed a method of checking various Rorschach tendencies and of preparing, in rather objective form, a rating on general adjustment (how well the subject has worked out the problem of managing his own inner tensions and establishing good relations with his environment). The Munroe Inspection Technique is the most promising development in the adaptation of the highly individualized Rorschach to mass testing. Her method is fairly reliable, agreement between some examiners checking the same test records running as high as .93. The average correlation between examiners, however, is only .65. Thus, even on a "total" concept, like general adjustment, agreement is far from perfect.

Validity.—Not only has the reliability of the Rorschach been brought under severe criticism, but the basic validity of the technique is questioned by many psychologists and psychiatrists. Allport and others have asked whether so small a sample of personality as reactions to ink blots can possibly reveal generalized tendencies, as claimed by the test's proponents. Cattell (1944) sharply questions whether some of the traits allegedly rated by the Rorschach have any true functional existence.

The validity of the test should be determined by data, not by rational inference. Rorschach originally validated his test by showing that it gave distinctive patterns for various groupings of psychopathological patients. As has already been noted, the use of abnormal cases as criteria introduces some serious hazards—perhaps less in the case of nonverbal than in that of verbal material. A review of the literature indicates that the Rorschach, too, has encountered this difficulty, since many investigators have failed to confirm claims made in the *Psychodiagnostik*. Vaughn and Krug (1938), for example, are very critical of Rorschach data in the study of psychotics. Benjamin and Ebaugh (1938), on the other hand, report data indicating validity of Rorschach patterns among abnormals. Rorschach analyses of 50 clinical patients were compared with independent diagnoses based on careful psychiatric study. Complete agreement is reported in 85 per cent of the cases and 98 per cent of "major diagnoses" were confirmed.

On normals, the best single research appears to be that of Vernon (1935). For 45 subjects, a Rorschach personality sketch and a similar description independently prepared by a psychologist well acquainted with each person were presented to judges for matching. He reports a high degree of accuracy (contingency coefficient .83). This would mean a very substantial agreement between the two methods, and, to the extent that the psychologist's description is taken as a criterion, the Rorschach must be presumed to have validity.

What kind of summation can be made regarding the Rorschach, in the light of these investigations? The following generalizations are proposed. (1) The basic character of the test is probably valid for most people. More and more we are led to the conception that the mind functions within a frame of reference which is primarily visual. "How we see things" may well be the major *inner system* of personality. There may, however, be exceptions—people whose thinking is less predominantly visual, perhaps auditory or kinesthetic in character. (2) The role of the various determinants—movement, color, form and shading—seems fairly well established, again for the majority. It seems strange that the Rorschach experts, so insistent on the uniqueness of each individual,

should ignore the probability that many individuals will be unique to the extent of revealing inner traits in ways other than by the standard determinants. Many Rorschach errors are probably due to such instances. (3) Much of the skepticism indicated by clinical psychologists (see Table 1, page 23) is due to overenthusiastic claims and overintuitive handling of test records by devotees of the technique.[13]

We offer the conclusion that the Rorschach is perhaps the best single item in the field of personality testing today, but that it is by no means perfect; that it should always be checked against independent data; and that its enthusiasts can render psychology a substantial service by attempting to improve the scoring and interpretation of the test, instead of seeking new superlatives to describe its present perfection.

Thematic Apperception Test.—Second only to the Rorschach, among projective tests, is the Thematic Apperception Test (TAT), developed by H. A. Murray (1938). The material here is more structured than the ink-blot series; it is made up of photographs and drawings, mostly hazy and somewhat ambiguous in character. (In some the central figure could be either man or woman.) The person being studied is asked to make up stories for which each picture could be used as an illustration. It is suggested that he invent an account of how the person got where he is, what is happening, and how it will work out. Notes are taken not only of the story, but also of evidence of emotion and the identification of the subject with one of the people pictured.

Important lines of interpretation come from the presence of recurrent themas in successive stories; *e.g.*, one young man invents several tales involving the frustration of a lover, and this proves to be a dominant concern in his own personal life. The choice of words in characterizing people is often significant. The nature of the ending—sad or happy—is important. Detailed analyses have also been made of action words, adjectives, and other specific features of the material.

Because of the nonquantitative nature of the material elicited, it is difficult to make definite statements about the reliability and validity of the test. Harrison (1940a, b) has studied the validity of TAT in terms of clinical case histories. He finds that 82.5 per cent of specific facts, such as biographical data, major interests, conflicts, and problems, all of which had been inferred from TAT records, were verified by reference to the case history. As regards diagnostic category, 77 per cent of major diagnoses were inferred correctly, and 67 per cent of subgroup classifications were correctly identified from test material alone.

Other Projective Techniques.—From this discussion of the Rorschach and Thematic tests it would appear that almost any kind of performance which allows sufficiently free play for the expression of inner trends might serve as a projective personality test. This is verified by a quick survey of the literature.

[13] *Cf.* Munroe (1945), pp. 33-34.

Play analysis is being used extensively with children, for both diagnosis and therapy. Free drawings and paintings and designs made of colored tiles also have been analyzed and found to reveal significant facts about personality. Another test makes use of phonograph records emitting sounds which seem intelligible, for which the subject is asked to give an interpretation.

Values of Projective Techniques.—The projective methods of personality study have so widened the scope of our investigations that Frank (1939) compares them to the introduction of the X ray in medicine. This analogy is quite instructive. Like the X-ray photograph, projective tests enable us to see something of inner structure without damaging the organism. The Rorschach, particularly, seems to give something approximating an outline of the bare skeleton of personality, some very deep characteristics around and over which superficial traits have developed. TAT gives material slightly nearer the surface, related more to current emotional problems; but TAT is also valuable because it gives a fluid picture of the pressures operating within the personality. The two tests thus supplement each other in a comprehensive study of the individual's status at a given time.

The Historical Approach

Since the time of Freud, it has been a cardinal principle of psychology that every personality must be understood in the light of its past experience. In their more extreme forms, the writings of the psychoanalysts suggest that personality can be described only in terms of its past, *i.e.*, in concepts such as infantile fixation; the oral, anal, and genital stages of sexual development; and patterns of emotional involvement with the parents.

The significance of past experience in the intellectual field has been so taken for granted that one wonders why its importance in personality was so long ignored. One explains the child's ability to solve arithmetic problems on the basis of his schooling. It is equally appropriate to explain a warped personality in terms of warping environmental situations.

Today the first step in attempting to understand and counsel any individual is usually the collection of historical data. There are two main techniques for this purpose—the case history and the autobiography.

Case History.—The case history is the predecessor of all forms of historical documents. Taken down originally by the clinician as an essential part of his investigation, it has now become a routine of social case work, in guidance clinics, in relief administration and wherever human relations are dealt with in carload lots. It has tended to become stand-

ardized about a certain form, including ancestry, economic status, social contacts, education, religion, and other institutionalized forces. To this extent it reveals the increasing importance of cultural factors influencing personality.

As the case history has become standardized, it has grown more objective. There is a certain virtue in this; and yet, as we have pointed out in discussing other approaches to personality, an excess of objectivity may succeed only in destroying the problem. Certainly it is true that, in the hands of an unimaginative worker, the case history may lose its quality of being the record of the development of an integrated personality and become only a statement of the vicissitudes of a certain fragment of biological evolution, passing from job to job and from drink to drink.

Very few studies have attempted to determine the reliability of case-history material. One requirement, of course, would be that two workers independently collect historical material on the same individual. Practical considerations make this difficult. However, Cartwright and French (1939) report an investigation of this type. Because of the qualitative nature of the data collected, it is impossible to compute a reliability coefficient. The authors attempted to predict the subject's answers to certain questions from their findings. Each successfully predicted better than 60 per cent of his answers. They drew up 46 generalized statements about the subject; 40 of these were in agreement, 6 in disagreement. On these data it is impossible to draw any conclusions about case studies in general, but we are not encouraged to consider them highly dependable.

Even if case histories were quite reliable, there would be many factors reducing their validity as sources of personality data. It is necessary to rely on the memory of parents, neighbors, and friends; and this introduces an unmeasurable amount of distortion. There are ample opportunities for the same errors to creep in which have been cited in connection with rating scales. Finally, the relationship to the person making the case study (a social worker, a parole officer, a clinical assistant) may be one inducing deliberate concealment or twisting of facts. The most trustworthy case studies are probably those made for research purposes only, on college students and similar groups; yet the more important conclusions are likely to be based on the other kinds of subjects. As in so many other instances in this field, we must conclude by saying that case studies are as yet the only source of data on many points and that we must use them, albeit with caution.

Autobiographies.—The person making a case study can never know when he has collected all the relevant facts; nor can he know the inner feelings, interpretations, and desires experienced by the subject at any time. The autobiography is thus potentially a superior instrument for studying the historical development of the individual. Here the chief technical problem is persuading the subject to reveal delicate personal

facts, and it has been demonstrated that this can be done. Provision for anonymity is important. A specific list of questions or topics to be covered helps by assuring against omission of significant areas. A number of excellent studies have recently appeared in which the autobiography was the chief research instrument. It is admirably adapted for the study of trends in personality development, the individual's reaction to environmental crises, and similar complex problems.[14]

Unless a person is deliberately writing an autobiography on a superficial level, he is led almost inevitably to concentrate on the aspects of his life which are important to him. This is exactly what the psychologist wants. Krueger (1925), for example, places a great deal of stress on autobiographical data in the analysis of *tension situations*—the personal crises which play a major role in personality development. The autobiography also reveals the subjective interpretation of situations. As we have noted, each individual develops his own pattern of beliefs and expectancies, which in turn will determine how he reacts to objective events.

There is no investigation available from which we could infer precisely the *reliability* of the autobiographical method. As to *validity*, there can hardly be an outside criterion insofar as the material relates to personal feelings and interpretations. As regards objective events, this method is subject to the same memory distortions mentioned above. In fact, it is quite unsafe to take a description of a childhood event in an adult's autobiography as evidence of an objective occurrence. For instance, it has been found that a person may report that he was severely punished as a child, when reasonably impartial observers agree that such was not the case. Such a report is not objectively valid, but it is significant of the individual's *beliefs* about how he was treated. *An imaginary trauma may be just as important in personality as one of objective character.*

Dollard's Criteria of Life History.—The importance of the historical approach to personality study has been signalized with the appearance of a volume dealing with the analysis and interpretation of these documents. Dollard (1935) presents a series of seven "criteria" which, on the basis of experience with this method, he considers the minimum essentials for a satisfactory life-history analysis. As we have made use of some of these principles in our own interpretations, we quote Dollard's criteria in full:

1. "The subject must be viewed as a specimen in a cultural series.
2. "The organic motors of action ascribed must be socially relevant.

[14] *Cf.* Allport (1942).

3. "The peculiar role of the family group in transmitting the culture must be recognized.

4. "The specific method of elaboration of organic materials into social behavior must be recognized.

5. "The continuous related character of experience from childhood through adulthood must be stressed.

6. "The 'social situation' must be carefully and continuously specified as a factor.

7. "The life-history material itself must be organized and conceptualized." [15]

Criticisms of Dollard's Criteria.—These criteria represent a certain advance in methods of studying personality, in that psychologists are becoming more conscious of their own reactions in the process of investigation. They expose certain systematic prejudices with which the study of personality has often been clouded. Dollard's own biases are revealed here quite clearly, and this fact makes it possible for us to take advantage of his errors, as well as his contributions.

Dollard's interpretation noticeably overemphasizes the importance of cultural influences. For example, his first criterion should be expanded to note that the individual is also a biological specimen and that he grows in a stimulating environment not all of which is culturally determined. Dollard observes that the family group has a peculiar (important) role in transmitting the culture, but fails to comment that the adults in the family influence the children markedly and sometimes are influenced by them in ways only remotely related to culture. Finally, he states that the life-history material must be organized and conceptualized. While this is true, it must be done in such a way that the investigator does not project his own interpretations into the life history that he is studying. Despite these criticisms, Dollard's book has undoubtedly been of considerable value in guiding later work.

The Clinical Approach

As a final contribution to the discussion of methods, we may briefly discuss the clinical approach to personality. This is actually less a method than a point of view. All the devices normally used by the clinician have already been presented.

The interesting feature of clinical work is the necessity that it be truly integrative in character. It is not possible to focus on verbal manifestations, gestures, present traits, motivational trends, or past history; all of these must somehow be comprehended and synthesized into a view of the

[15] Dollard (1935), p. 8. Reprinted by permission.

personality as a whole. The clinician cannot evaluate any single trait in isolation. Each must be considered relative to proper balance with other features of the personality.

In the clinical examination, therefore, the personality is studied simultaneously from several angles. (1) There is usually a physical examination, to determine the possible contribution of organic illness, glandular imbalance, and other physiological factors. (2) There may be a determination of intellectual level, for which usually a standardized test is employed. (3) The patient's means of obtaining emotional satisfaction must be identified; this may involve questionnaire and projective tests, as well as interview and direct observation. (4) A case history is needed to give a picture of the relationships to the family and other features of the social environment.

The bare minimum of the clinical method, therefore, is the study of the total behavior structure at any given time with an eye to determining (1) the present normality of the individual, (2) his potentialities for normality, (3) possible causes for his condition, and (4) possible therapeutic measures for it. With the last of these we are not going to be concerned in this volume, and the question of causes relegates itself to a later section. Some attention must be paid, however, to the concept of normality.

Standards of Normality.—Many arguments have developed in relation to discussions of normality in human behavior. Most of these disagreements were semantic in character; the word "normal" does not have the same meaning for all of us. Actually, a standard of normality is like a religion. It is more a matter of faith than of logic. There are three commonly accepted standards of normality which deserve our consideration: the ideal norm, the statistical norm, and the adjustive norm.

Ideal Norm.—In many fields of human activity ideal norms or standards are set up and deviations are figured from this ideal norm. In religion, for instance, standards of perfect behavior are set up as desirable, rather than as attainable, goals. In aesthetics we tend to set standards so high that only a gifted few can approach them. The same is true of systems of morality and ethics; not many individuals reach the cultural ideal.

It may be that we are all "a wee mite crazy." However, the psychiatrist is in no position to believe this. He cannot use a standard according to which everybody is abnormal. His concept of normality must, in the very nature of things, be something which most people fit and a few do not, rather than the reverse.

Statistical Norm.—As a substitute for the ideal norm, the statistical norm has been suggested. According to the usual application of this

concept, it defines the average as the normal, using the term "average" to mean not only the exact score which is average, but including a certain range of scores above and below that point. Thus one might say that the average (or normal) IQ is 100. But very few children score exactly 100. On the other hand, if you say that the normal is 100 plus or minus 10 points, you obtain within the range 90 to 109 about 60 per cent of unselected samples of children. The statistical norm is thus more realistic and practical than the ideal norm.

Adjustive Norm.—The statistical norm is satisfactory for some purposes. However, we often find that an individual "measures up" all right, seems to be numerically normal, yet fails to get along, to adjust himself satisfactorily to his social environment.[16] It may be a purely qualitative matter, or one of integration of traits. In this case the statistical norm is not suitable, although it might with some juggling be made to fit the case. Preferably we speak of the "adjustive norm," the standard of behavior based on the fact that human beings have certain problems to face, that most of us face them successfully but a few do not.

Obviously in many cases the statistical and the adjustive norms will coincide. Taken by and large, the individual who approaches the average in his structure and the measurable aspects of behavior has an excellent chance of adjusting, because the customs and institutions of society are based on just such as he. Conversely, of course, the person who deviates markedly from the statistical norm will be at a disadvantage in adjustment. For this reason a few psychologists have maintained that the statistical norm is the only concept we need, but it seems that there is still a border ground of cases which do come under that concept and yet fail of adequate social adjustment. For work on the measurable aspects of personality, the statistical concept is no doubt adequate.

The difference between the three norms discussed may be shown by a study of neurotic behavior in a group of college students. The range of their scores on the questionnaire used was from 5 to 50, with an average at 27. None of them attained the ideal norm, which would have been no neurotic answer at all, or a score of 0. On the other hand, few of them would fail to attain the adjustive norm, although some of the individuals scoring around 45 and 50 were having marked social difficulties. For this situation the statistical norm is most appropriate. In other cases, where the emphasis is not upon measurement but upon qualitative aspects of behavior, the adjustive norm would be more useful. The adjustive

[16] The adjustive norm, therefore, varies in different cultures, and in different groups within a complex culture. The cultural norm for a business executive is not the same as that for the office boy.

norm will always be relative to group standards of behavior, but this is equally true of the ideal and the statistical norm.

Subjective Nature of Clinical Method.—While considerable objectivity is being attained in the pursuit of clinical data, it is still true that the essence of the clinical approach is subjective. This accounts for some of the confusion as regards the use of abnormal groups for test validation, which was mentioned in the preceding chapter. Nevertheless, in the practical pursuit of adjustment for abnormal individuals or improved efficiency for normal persons with special problems, the clinician frequently develops insights which have great value in all fields of personality study.

Study of the Single Case.—The clinical approach also differs from all the other methods so far described in that it is concerned primarily with a single case, considered alone. The clinician attempts to achieve an understanding of this person as a unique individual. The important aspects of this process have been graphically described by Alexander (1940):

"Its chief instrument is a kind of identification with the other person, that is, a putting of one's self in the other person's mental situation. By observing the movements of another, the tone of his voice, and particularly by listening to what he says, one gets an idea of what is going on in his mind . . . we note his external behavior but we also know from our introspective experience what we feel when we behave similarly and use the same facial expression, words and movements . . ."[17]

One fact stands out from this description: even the clinician never actually studies a single case in isolation. As a minimum, the patient is evaluated in comparison with the psychiatrist's own personality. Actually the process of comparing this individual with others goes on throughout such an investigation. The psychoanalysts have laid great stress on the interpreting of a personality by noting the frequency with which certain associations come up, the intensity of emotions manifest, resistance to interpretations proposed, and other purely individual data. Nevertheless, the analyst acquires a scale for interpreting these phenomena through observing them in a variety of patients, not from studying a single individual in isolation.

It is theoretically possible to make an intensive analysis of a single case without reference to others; *e.g.*, Baldwin (1942) gives a detailed statistical analysis of personal data for a single person. It is, however,

[17] Alexander (1940), p. 320. Reprinted by permission of the American Psychological Association, Inc., publishers.

laborious and difficult to interpret without considering how these measures would probably work out in other instances. In general, it seems that progress will come through better measures of individuals which can be evaluated against group norms, not through elaborate studies which cannot be checked against the behavior of other individuals. Personality develops in a social frame of reference and must be understood in the same way.

The Dramatic Fallacy.—Excessive concern with the study of individuals in isolation is, in fact, likely to lead to a very prevalent psychological error, labeled "the dramatic fallacy." The essence of this mistake is that the untrained observer tends to draw sweeping generalizations from a single incident. If he studies a girl with a violent temper who has red hair, he may conclude that color of hair is an index of temperament. He may know someone who had a neurotic breakdown after suffering severe economic loss, and may proclaim that all personality maladjustments are due to economic factors. Such inaccurate generalizations from single striking cases are instances of the dramatic fallacy.

The only check on this tendency is the use of statistics and the repetition of observations under controlled conditions. Thus, while one may legitimately develop a hypothesis from a single case, he should hold it tentatively until it can be checked in varying contexts.

Evaluation of Methods

We have now sketched, in very limited detail, the major techniques currently used for the investigation of personality. In connection with each, a tentative judgment has been given as to the values, limitations, and possibilities for improvement. There remains the necessity of considering briefly the relative merits of different procedures.

First we must emphasize that, in the present stage of personality research, no method can establish primacy. Many specialists in particular procedures write as if their techniques alone had validity. Actually, it is the very lack of any generally accepted criterion of validity which forces us to employ such a diversity of methods. Interviews, ratings, questionnaires, Rorschach, handwriting, and all the other approaches have their particular utility. The available evidence does not justify assigning to any one of these a status of preeminence.

It is further obvious that the purpose must to some extent determine the device employed. Surveys of large groups cannot use individual tests like Rorschach and TAT. People who are unwilling to cooperate cannot be tested with questionnaires. If it is necessary to get a great deal

of information about a single person, projective tests seem to offer greatest promise.

The chief controversy today is between the advocates of structured techniques, primarily the questionnaire, and those of unstructured methods, such as the Rorschach and TAT. We favor the conclusion that each method has characteristic values and weaknesses.[18]

Questionnaire inventories characteristically reveal conscious manifestations of inner organization, which in turn may perhaps be traceable to determinants of an unconscious nature. This is equally true of the projective tests. The chief difference is the degree to which censorship can be exercised. An intelligent subject can easily distort his responses on a questionnaire, to conceal patterns that he does not wish to acknowledge; and repression may prevent him from recognizing some of his less desirable features, so that he may honestly give answers which are incorrect. Such conscious or unconscious concealment is more difficult with the projective devices.

It appears at the present time that the Rorschach gives a fairly satisfactory picture of the skeleton of personality; something of the basic orientation (inward or outward), affective control, flexibility, and the like. The TAT provides at least some information about the immediate needs, strivings, and wishes of the individual. Questionnaires indicate what the person looks like to himself; they measure the self-image. Hence, these methods are not mutually exclusive. Contradictions between them do not even mean that one is right, the other wrong. Sometimes one is right for peripheral and the other for central traits. Validity is relative. The competent physician does not discard the history of symptoms in favor of the X ray; he uses both. Good psychologists will probably favor this point of view for a long time to come.

Suggestions for Reading

Hunt's *Personality and the Behavior Disorders* has excellent treatments (Chaps. 5 and 6) on the major techniques discussed here. There are now several good man-

[18] The analysis we have presented of questionnaire tests was prepared before the extensive summary by Ellis (1946) appeared in print. Ellis reports 162 studies, of which he finds 65 providing positive evidence of validity, 26 doubtful, and 71 furnishing evidence against validity. Considering the fact that he has lumped good and poor questionnaires together, and well-conceived and poorly planned studies of validity together, this does not seem to justify his conclusion—"hardly worth the paper on which they are printed." We incline to interpret his compilation of evidence as supporting the conclusion reached here: that questionnaire tests, particularly the better ones, have some validity but should be used with caution.

uals on the Rorschach; for lucidity we prefer Klopfer and Kelley's *The Rorschach Technique.* In Murray's *Explorations in Personality* will be found not only TAT but a wide variety of other techniques, some of which may yet develop into valuable personality measures. In *Motivation and Visual Factors,* by Bender *et al.,* are a number of excellent psychoportraits, with discussions of the various techniques used to obtain the relevant information.

SECTION II
DESCRIPTION OF PERSONALITY

CHAPTER IV
THE NATURE OF PERSONALITY STRUCTURE

The normal human personality is an organized whole. Despite the fact that people sometimes seem erratic and that an occasional act seems entirely unpredictable, it is the unusual nature of such incidents which makes them noteworthy. In general, we find ourselves able to identify our friends by their dependable habits and consistent points of view. Within ourselves we likewise find consistency, as was illustrated by such data as those on the reliability of measures of personal traits.

The plan for this book sketched in Chap. I provided for three sections, the first describing basic personality elements, their development and integration, their organization around the Self-concept, and their special relationships. Later sections will be concerned with the inner impulses which push the personality along this developmental path, and with the environmental situations which provide models or barriers to the formation of personality. This and the immediately succeeding chapters will be devoted to the task of describing personality.

Meaning of the Term "Personality Structure."—Psychoanalysts have employed the term "personality structure" to designate the particular organization of basic and derived *impulses* manifested by a given individual; thus Hendrick (1934) writes as follows:

"The concept of personality structure . . . defines the total personality in terms of three systems: Id, Ego, and Super-Ego. Each psychological detail or observation may be described as belonging to one or another of these systems or as a reaction between them. *For example,* the thousands of samples of instinctive urges manifesting the 'I wish' or 'I need' functions of the personality are all considered examples of function originating in the Id."[1]

[1] Hendrick (1934), p. 149. Reprinted by permission of Alfred A. Knopf, Inc., publisher.

It is obvious here that Hendrick refers to a presumed or inferred organization of drives, urges, and needs in a systematic pattern. While we have reason to believe that the personality is organized on this motivational level, this is only one aspect of inner organization, and one which is not available to direct observation. We further feel that the term "structure" is not entirely appropriate in this dynamic context.

Gestalt psychology, on the other hand, employs the term "personality structure" in a more clearly descriptive sense. In Lewin's essay "On the Structure of the Mind," for example, the following statement occurs:

> "The individual psychical experiences, the actions and emotions, purposes, wishes and hopes, are rather *imbedded in quite definite psychical structures, spheres of the personality, and whole processes.*" [2]

Here it is plain that the concept of structure is employed in a sense more closely analogous to the structure of a building or of an organism. Thus a person's political attitude, if important to him, might constitute a well-integrated structure, enduring through time; retaining a recognizable pattern; resistant to change; and providing an organized framework for various mental pictures, emotions, desires, plans, and judgments.

It is in a sense comparable with that of Lewin that we shall employ this concept. It is here conceived that personality structure is a generic term, covering the basic fact that *personality is organized,* but recognizing also that organization occurs on different levels. For practical purposes we should distinguish three such levels: behavioral, perceptual, and motivational.

On the behavioral level, patterning develops at an early age. Children soon show similarities to their parents in speech, gesture, and gait; also in the acquisition of a "Southern drawl" or any other distinctive mode of expression. With maturation this general tendency is likely to be modified, not toward looser organization, but toward uniquely individual characteristics, as in handwriting, speech, and overt action. At this level, consequently, structure refers to the persisting uniformity or harmony of gestures and other observable responses of the individual.

On the perceptual level it is also easy to demonstrate a structuring process. To start with an adult example, we note that the average man develops a consistent way of perceiving labor-management conflicts. He "sees" either the evidence for or the evidence against labor, but not both. In extreme cases this may amount to a complete inability to perceive facts which others find compellingly obvious.

Because of favorable family experiences, the child may perceive his

[2] Lewin (1935), p. 54.

parents as warm, friendly individuals, and this will predispose him to see other adults in the same light. Barring unfortunate mishaps, he will develop a generalized pattern of perceiving all his fellows as kindly disposed toward him. Such a person tends to evolve traits of sociability and optimism, consistent with this general perceptual pattern or *frame of reference.*

The existence of organization on the perceptual level is demonstrated, in the final analysis, by observation of responses. There is, none the less, a real difference between structure on the response level and structure on the perceptual level. Response consistency might be illustrated by a person who uniformly votes Republican because of an established habit; perceptual consistency, by a person who might vote Republican in a national and Democratic in a local contest, yet reveal a conservative pattern in doing so. To an observer, the shift of parties might appear inconsistent; to the voter involved, his self-consistency is quite clear.

Finally we find, as Hendrick suggests, an organization of dynamic impulses, motives, or needs. Some individuals are dominated by a need for affection, for power, or for possessions. Some persons are characteristically infantile in demanding immediate need gratification, whereas others show habitually mature self-control. While the physiological drives, such as hunger and thirst, always remain to some extent independent and capable of controlling behavior in emergencies, even they may in part become organized with fairly remote systems of the personality. For example, some neurotics eat too much because they feel "starved for affection."

Specific and General Organization.—One of the perennial controversies in the psychology of personality is the generalized versus the specific nature of organization. This will be considered in various portions of our volume. We propose, as a rule, to take the position that both views are partly correct. The normal personality includes some broadly generalized and some highly specific response tendencies. It seems likely that some illustrations of each of the various degrees of generality-specificity will be found in everyone. It will be convenient for the student to think of a scale ranging from highly specific to broadly generalized patterns, as follows:

1. Relatively specific stimulus-response patterns comparable to those established in the Pavlov conditioned response experiment. Even these are generalized to a limited extent through transfer to similar stimuli (for example, a child frightened by one dog develops a fear of all dogs).
2. Specific responses to a class of stimuli, as in stereotypes (Jews, Negroes, Communists).

3. Generalized attitudes, *e.g.*, toward minority groups of all kinds.

4. Frames of reference, such as radical or conservative, humanitarian, religious, occupational, nationalistic.

5. Philosophy of life; the individual's conception of himself in relation to the social order and to the universe.

Children sometimes seem to demonstrate excessive specificity of response, in that their reactions to apparently similar situations are inconsistent. On the other hand, they may overgeneralize from limited experience. Probably in all but the most rigid personalities, there is a continuous interplay of change and evolution within the individual. Specific responses tend to get organized into patterns; and organized tendencies are split, on the basis of better information, into various partly specific responses.

Individual Differences in Personality Structure.—It is important, in connection with any personality structure, to consider (1) how it differs from other structures and (2) how it attained its present form.

It would seem possible to classify personality structures in terms of a number of different principles, each of which would have validity in terms of a stated frame of reference. We are trying, in the present context, to evolve a systematic *description* of personality. We therefore propose that descriptively we can discriminate among personality structures with respect to the following characteristics: complexity, fluidity, accessibility, resistance, and centralization.

Complexity.—There is an easily noticed gradient of differences from the simple personality of the young child or the feeble-minded adult to the extremely complex pattern of the intelligent adult. Operationally we can define complexity in terms of the number and variety of situations which have *different* meanings for the individual, as opposed to the oversimplification of the environment to a limited mind; also, by the variety of goals, pleasures, and interests that the individual manifests; and by the ability to participate actively or imaginatively in a number of different social groups. In Fig. 5 a contrast is suggested between a simple or infantile structure (5*A*) and complex structures (5*B*, *C*).

Fluidity.—Personalities differ also with respect to the inner rigidity of organization. The fluid personality may be defined as one in which connections are easily established between various organized systems or with new materials. Such individuals tend to develop consistent attitudes and values, because connections are quickly perceived and comparisons are quickly made. The rigid structure, on the other hand, is one in which inconsistent or contradictory patterns are maintained; communication from one organized system to another is difficult. The fluid personality

adapts smoothly; the rigid personality is likely to break rather than bend under stress. Ability to see another's point of view is probably a feature of the fluid personality.

Accessibility.—Some individuals have "accessible" personalities; they are "open" to new stimuli and communicate their own feelings fairly readily. The observer feels that "mask" and "substance" are closely

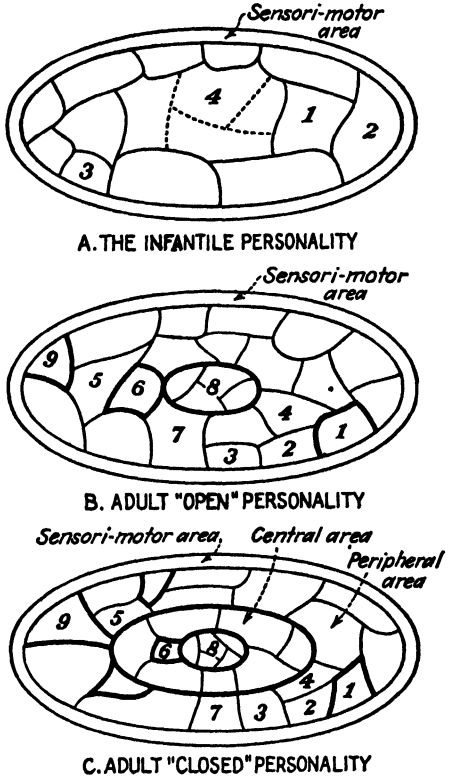


FIG. 5.—Topological representations of certain differences in personality structure.

A.—Infantile personality. Sensorimotor area—region of perception and overt movement. 1, 2, 3, developing inner systems (skills, emotional prejudices and preferences, motivations). 4, relatively central area, not yet clearly defined as the Self.

B.—Adult "open" personality. 1, 2, 3, 9, "surface traits," superficial interests, socialized habits, visible characteristics (1 and 9 somewhat inconsistent with rest of personality). 4, 5, "source traits," deeper emotional and value patterns that shape the surface traits. 6, repressed (dissociated) unconscious complex. 7, main activity for self-expression (business, politics, etc.). 8, relatively inaccessible Self or Ego.

C.—Adult "closed" personality. The numbered regions have the same significance as in *B*, but the central area is much less accessible to study. The personality is likely to be enigmatic and inhibited in self-expression. More regions are dissociated; more inconsistencies occur in ideas and behavior. Resistance to change is high.

related, and that it is possible to know this individual without intensive probing.

The "closed" personality (contrast Fig. 5*B* with 5*C*) is one which is relatively inaccessible to external stimulation. The extent of the "peripheral" area will determine the superficial appearance of such an individual. In some cases, the periphery (mask) is extensive and well developed; casual observation might classify this as an open personality. In other instances, even facial expression and conversation may be under rigid restriction, there is little responsiveness to social stimuli, and the individual gives nothing of himself to those about him.

Resistance.—Personality structures also differ with regard to their resistance to change. While it would seem likely that personalities which are "closed" and lacking in fluidity would be found highest on resistance, observation suggests that neither generalization is entirely true. The Ego region of all personalities is most resistant, as each of us clings most closely to his picture of himself. The extent to which other traits, attitudes, and values are Ego-involved is one determinant of their resistance to change.

Centralization.—It seems desirable to have some identifying term to indicate the fact that in some personalities, relatively few activities are Ego-involved, whereas in others, the feeling of self-importance attaches to a wide range of organized systems. Thus Mr. Brown may become angry if you criticize the Republican party, but show no particular irritation if you cast aspersions upon his church, profession, or community. Mr. Jones, on the other hand, may readily identify himself with any group of which he is a member, and become emotional when any such group is praised or attacked. It is proposed that the latter type of personality structure be called *centralized,* the implication being that many systems are closely related to the central Self or Ego system.

In Fig. 5 we have attempted to represent diagrammatically some of these variations in structure. In these diagrams the "sensorimotor area" refers to easily observable aspects of personality—facial expressions, gestures, and overt acts—as well as to the sensory mechanisms for receiving and interpreting stimuli from the environment. Within this enclosing region, the various subdivisions relate to organized inner systems: habits, values, attitudes, ambitions, traits, and similar persisting psychological characteristics of the individual. The extent to which any one system is accessible to the rest of the personality is represented by the heaviness of the boundary line. Unconscious material—which may affect personality manifestations but cannot be reported verbally—is heavily blocked off (*cf.* region 6, Fig. 5*B*). Regions open to the sensorimotor area represent those

traits which are most readily manifest in overt action, and regions in contact with the central Self are those which are most Ego-involved.[3]

The characteristics of complexity, fluidity, etc., have been described in terms of polar opposites: extremes of simplicity and complexity, rigidity and fluidity, and the like. It should not be thought that people can be separated into contrasting types on these points. As far as the above characteristics can be estimated from clinical interviewing—none is susceptible of direct measurement at present—it would appear that normal people would be found at all points along a continuum, from one extreme to the other of the five features listed. The distribution would probably follow the normal curve illustrated in Fig. 1 (page 12).

The extent to which hereditary and environmental influences are relatively responsible for individual differences in structure is not known. It is clear that intelligence (mainly determined by heredity) is a factor, but not the sole factor, in complexity, fluidity, and resistance to change. Painful environmental experiences may lead some individuals to "encapsulate" themselves, creating "closed," or inaccessible, personalities. On the other hand, some children show this enigmatic quality with no apparent justification in the environment. Hereditary factors may play a part; adequate evidence simply is not available.

We know much more about the origin and development of the separate systems comprising the functional units of personality. The immediately succeeding chapters will trace much of this development from simple emotional responses to the mature Self or Ego.

Levels of Personality Structure

There are three levels at which personality structure can be studied: behavioral, perceptual, and motivational. We can now profitably consider some basic principles relevant to the analysis at least of the behavioral and perceptual aspects of personality.

Direction of Behavior Variables.—Most of the observable units comprising the behavioral aspect of personality involve action directed toward a goal. The number of specific acts and specific goals is too great to use them as a satisfactory basis for a scientific analysis. (In Chaps. VIII and XII we shall show that in some cases responses can be grouped in a meaningful manner for the sake of identifying generalized traits.) From

[3] It will be noted at once that this treatment is deeply indebted to the writings of Kurt Lewin, particularly *A Dynamic Theory of Personality* and *Principles of Topological Psychology*. At the same time, we wish to emphasize that Dr. Lewin might not have endorsed all the generalizations made above.

this many psychologists seem to conclude that a systematic analysis of the raw materials of personality is impossible, because there is an infinite number of characteristics in terms of which individuals may differ from one another. Thurstone, in some of his statistical techniques, has employed the concept of n-dimensional space, each dimension presumably corresponding to a personality variable. (It is interesting to note, however, that his techniques indicate only a few significant variables.) Other psychologists have frankly stated the opinion that "no two men ever have the same trait." [4] This attitude, we believe, is induced by a point of view in which the study of the forest is obscured by concentration upon individual trees; in other words, an attitude which stresses specific dissimilarities to the neglect of general trends.

The hypothesis which we wish to present is that the directions of variability in human *behavior* are very limited in number, present evidence suggesting that there are only two dimensions along which such variations may be plotted. These two dimensions may be considered (1) approach to or withdrawal from a stimulus object; and (2) increased or decreased organismic activity with reference to the object. Granted that there may be varying *degrees* of each of these (an assumption which is implicit in the statement that they are "dimensions" of behavior) and that the mature organism may be quite ingenious at devising *ways* of approach or withdrawal, we may still maintain that behavior itself varies only in these two dimensions.

Whence, then, the multiplicity of reactions which has confused psychologists attempting to give descriptive systematizations of personality? Our inference is that this multiplicity is in the variety of stimulus objects to which the individual responds. It may *seem* on superficial inspection that "approaching" ice cream and "approaching" an attractive member of the opposite sex are uniquely different reactions. Yet, considered analytically, they show differences in degree rather than in kind of reaction. The intensity of the response (increased excitement), for example, will be quite different. In the same way, the response of avoiding work when fatigued is not superficially like the response of avoiding a hungry lion, yet they differ in strength of avoidance and increase of excitement rather than in the nature of the avoiding response itself.

The general outline of our hypothesis, then, is that when the personality, the reacting organism, is face to face with a stimulus object or a stimulus situation, there is really only one dimension along which it can move with respect to that situation, *viz.*, it can approach, or it can withdraw.

[4] Allport and Odbert (1936).

We may like spinach, or we may dislike it; we may seek companionship, or we may avoid it; we may be interested in socialism, or we may be antagonistic to it. The basic feature of this dimension is its construction along the lines of pleasant and unpleasant reactions to stimuli. However, there will be many apparent exceptions to this rule in the sense that an individual, in the process of approaching one goal, may avoid others which would be pleasurable under different circumstances, or may approach situations which are actually unpleasant, to attain the main goal object. These exceptions, therefore, do not constitute real deviations from our general thesis, but only underscore the fact that there are long-time approach-withdrawal responses, as well as short-time reactions.

A second direction in which the behavior of the personality may vary is in the degree or strength of activity with reference to the situation. It is obvious that under certain circumstances the organism may manifest heightened activity, while in other cases the level of activity is lowered. The repetition of a relatively similar situation does not necessarily result in the same degree of reactivity. At one time the offer of ice cream may result in approaching responses with an overflow of action (excitement), while the same offer after a large helping of ice cream may result in little or no increase in organismic activity. The difference between affection and sexual love is largely a matter of the intensity or excitement component.

Excitement has as its negative counterpart depression. However, it is by no means certain that excitement and depression are the only factors accounting for upward and downward fluctuations in the activity level. Organic factors of an unconscious variety undoubtedly are important. But the conscious concomitants of these changes seem to be feelings of excitement and depression. For example, strong physical exertion, even with no particular emotional stimulus, often gives a feeling of excitement or exhilaration; and likewise fatigue usually results in depression, or at least in greater susceptibility to depressed states. Pathological cases often show extreme activity during excited periods, followed by fatigue which seems to set off a phase of depression.

In Fig. 6 we have presented a hypothetical construction of the view just outlined. In this figure, approach and increased activity are presented as the positive ends of spatial coordinates; withdrawal and decreased activity are represented as negative. Such a distinction has, of course, no more than figurative value.

Critics will immediately point out that such a view neglects numerous facts, as, for example, that "love" may be very strong in some cases, as

sexual love, while in the case of love for relatives the excitement component is very weak. Our answer is that this is exactly the basis of our criticism of the view that behavior has an infinity of dimensions. This example shows that the infinity of variation is not in the behavior, but in the objects toward which the behavior is directed. The fact that, from time to time, our responses to stimuli change—as, from pleasant to unpleasant, from excited to depressed—does not invalidate this theoretical

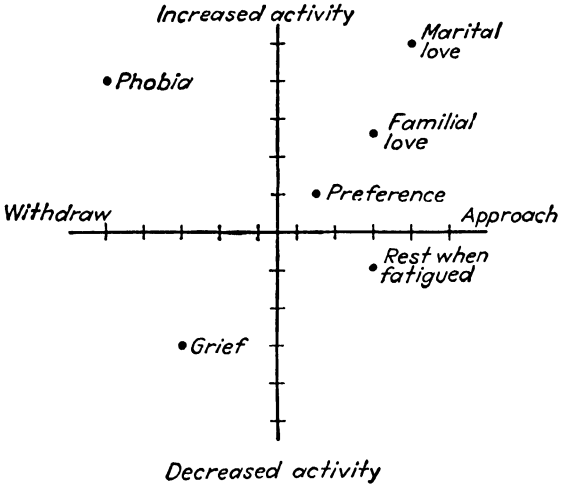


FIG. 6.—A two-dimensional representation of behavior. Any human response can be classified as (1) approach to or withdrawal from a stimulus and (2) increase or decrease in general activity level. Examples are plotted to illustrate this view.

view, but reinforces it. Behavior has definite limitations on its scope for variation.[5]

Direction of Perceptual Variables.—Most of the foregoing analysis has equal validity when applied to simple perceptual patterns. While not all perception is immediately goal oriented, in the sense that behavior is, the perceptions of physical and social objects having significance for personality are goal related. Our perception of a delicious apple pie as a desirable food object has meaning only in relation to food-seeking behavior. The perception of a broad social security program as a desirable political-social objective makes sense only in relation to the generalized goals and values of the individual.

It is possible, therefore, to utilize the same framework suggested in Fig. 6, in setting up a diagrammatic representation of gradients on the percep-

[5] *Cf.* Williams (1935); Burt (1938).

tual level. The horizontal axis in this case could be labeled approval-disapproval, or, in oversimplified terms, good-bad. Numerous studies [*e.g.*, Asch, Block, and Hertzman (1938)] confirm the assertion that this is the basic gradient in the patterning of such material.

It is not so easy to identify the vertical dimension of this chart; in fact, it seems necessary in dealing with the perceptual level to abandon the conception of limiting all variations to movement in two dimensions and to accept the possibility of a number of dimensions. Such other dimensions might resemble the excitement-depression gradient incorporated in Fig. 6, a realistic-idealistic gradient, or something quite different from anything suggested.

One notes immediately that the perceptual level must be divided off into areas. Objects or policies which are approved as economic matters may be disapproved on humanitarian grounds. A beautiful woman might have exciting qualities when perceived merely as a member of the opposite sex, but might be seen as a tragic figure when understood in the light of her experiences. A "good" man in the religious sense might not be at all desirable from a political point of view.

To identify these areas within which a relatively uniform set of standards guides judgment, we shall use the term *frames of reference.* It is clear that politics, economics, religion, and science are terms identifying such areas. A man may have quite different values in his role as scientist and in his role as church member. Or he may on Sunday approve of "love thy neighbor" but disapprove of such a policy when he is making judgments on an economic basis.

How many different frames of reference do we have? There is no single answer. A very simple personality structure might involve only one; a complex personality might have a half dozen or more. It must also be noted that the complex-fluid personality will tend toward unification of divergent frames of reference, so that the same standards apply in political, economic, religious, and personal matters; whereas the complex but nonfluid structure will often show substantial inconsistencies between judgments in the various reference frames.

Relations between Perceptual and Behavioral Level.—In general, there should be a close correlation between perceptual judgment and overt behavior. This amounts to no more than saying that people who like chocolate candy frequently eat it. To take a more significant example, the man whose mental picture of himself is that of a vigorous, dominative personality, often acts in a corresponding manner.

There are, however, numerous exceptions; and these exceptions are

fruitful from the psychologist's viewpoint. A man who likes whisky may find it convenient to denounce the Demon Rum in speeches and a fundamentally irreligious man may be a prominent church member. People who favor equal rights for Negroes as an abstract principle sometimes refuse to act on that basis. Generally speaking, these inconsistencies can be resolved by a more careful study of the personality. Usually we find that the apparent approval (or disapproval) on the perceptual-verbal level is related to some object not immediately apparent. Thus a politician in a Prohibitionist community is reacting to political values, not to alcohol as such, in his speeches. Repression is often a factor in such inconsistencies.

On a more abstruse level, many psychologists have sought for relationships between expressive behavior (handwriting, gestures) and the inner traits which we have called perceptual. It might seem, for example, that there should be a relationship between "open" gestures and an "open" personality. Here it is important to remember that *things bearing the same name are not always the same.* An honest face does not automatically guarantee honesty of character. The evidence on expressive behavior and deeper personality traits will be reviewed in Chap. XII.

More fruitful than the study of similarity in labels is the study of substitutive relationships between conscious (perceptual) and overt (behavioral) manifestations. In the study of an individual we sometimes observe a *functional equivalence of thought and action.* An instructive example is the following incident, reported by Bagby (1928):

"The patient, a university sophomore, sought assistance in connection with a strong impulse to gnaw the back of his right hand. The tendency had existed for a period of two months and already a large callous area had developed. The patient appeared to be quite ashamed of his inability to secure control of this habit, and said that he had been wearing a glove to conceal the scar, although the weather had not been cold. (Acid was applied to the hand so that a bitter taste would result when it was placed in his mouth.)

"On the third day the young man reported that the inclination to bite his hand was no longer troubling him. However, he called attention to a new symptom. He found himself almost constantly beset by moral worries. (These were illustrated by trifling points such as choice of neckties, walking with friends on the campus, etc., over which he had worried to excess.)

"The condition of moral uncertainty persisted for several days. Finally, however, the patient came to report that his distressing condition had completely disappeared and that he was again serene. But, in the course of the conversation, it was observed that he repeatedly bit his *left* hand. Thus, a modified form of the

original impulsive habit had developed, and, when the fact was called to his attention, he gave unmistakable evidence of surprise and chagrin." [6]

It is easy to see that the hand biting is an expression of some inner emotional state (in this case, a masturbation problem, with attendant guilt feelings and worry) and that the temporary suppression of the hand biting led to the development of the conscious disturbance (worrying over trifles). Unconscious resumption of the hand biting permits recovery from the disturbed conscious state. A permanent cure can be effected only by attacking the underlying emotions of guilt and fear.

On the other hand, one should recognize that there can be a fairly complete cleavage between the implicit and the overt manifestations of personality. (Note, for example, that the young man in the above case seemed completely unaware of the development of the second hand-biting episode.) A man at the funeral of his rich but peevish aunt may look sad without feeling so. According to an old proverb, "Actions speak louder than words." There are many exceptions to this rule, but it is well to remember that words and acts often differ in import. Rather than take either as a criterion of reality, scientific psychologists try to check each against the other. Sometimes rather devious techniques (*cf.* Chap. III) have to be devised to locate an inner state which is not correctly indicated by either speech or behavior.

Motivational Structure.—All human motivations, of course, can be classified first on the basic gradient of approach-withdrawal or approval-disapproval. We want food or power or sexual gratification; we want to get away from objects of frightening or injurious character. In addition to this simple aspect of motivation, personalities differ with respect to the *order of dominance* of different motives, the capacity for *sustaining and delaying motives* from direct expression, and the *complexity* of dynamic organization. These problems will be considered in Chaps. XIV-XVI.

Motivational and Other Levels of Structure.—In a sense, the motivational is the basic level of personality. Behavior is goal directed; perception is goal oriented. Motivation determines the goals. Thus the most complex theory of personality, the Freudian, is almost exclusively a motivational theory.

On the other hand, motivation is necessarily inferred from descriptive facts about personality. And many writers who confine themselves to

[6] Bagby (1928), p. 7. Reprinted by permission of Henry Holt and Company, Inc., publishers.

the motivational aspect make errors because they have not studied carefully the scientific work which has been done on the descriptive level. If we get first a clear picture of the manifestations of personality, we shall find it easier to make inferences as to the needs and pressures impelling the individual to behave as he does.

Motivation is the key to many of the inconsistencies between the behavioral and perceptual levels; the relative strength of various motives, for example, may explain the discrepancy between words and deeds. Conversely, perception often seems to control motivation; whether powerful dynamic energies will be mobilized in an economic struggle, for example, depends upon the way in which the individual perceives the situation. A worker who perceives himself as a member of the owning class may mobilize strong energies in behavior which is, in a long-range sense, self-destructive. A boy who could be a successful businessman may perceive himself as an artistic genius; lacking talent, however, he struggles and suffers vainly for years because of this illusion.

Conscious and Unconscious Structures.—We take the position that there is no qualitative difference between those organized personality systems which are conscious and those which are unconscious. As a matter of fact, almost every feature of personality of any importance has both conscious and unconscious facets. An individual may have consciously a well-developed interest in people, which expresses itself both in personal contacts and in humanitarian activity. This may, however, have concealed origins in sexual and power-seeking drives, and almost certainly has historical roots in childhood experiences long since forgotten, if not actively repressed.

The conscious-unconscious polarity in personality relates primarily to verbalization. Some personality structures have verbal correlates readily available and can be discussed freely. Others are dissociated from verbal expression and normally achieve expression indirectly, rather than through speech. This linguistic difference has, in turn, significant implications for self-control and social control, inasmuch as verbal stimuli are the most commonly employed approaches to the modification of these structures.

It will help us in understanding the multiple interactions of various inner systems if we treat conscious emotions, visceral reactions, overt acts—with or without verbal concomitants, frames of reference, and habit patterns—as qualitatively alike. Classifying these phenomena as mental and physical, conscious and unconscious, verbal, manual, and visceral may have some convenience in identifying quickly for the reader

just what is being discussed, but such classification helps not at all in clarifying the basic situation. All these phenomena should simply be considered as *personality events,* psychophysically neutral. They are, in fact, mutually interchangeable, as Bagby's case so neatly illustrates. They are, furthermore, in constant interaction. It is for this reason that the topological representation of personality (see Fig. 5) symbolizes all organized systems by bounded areas. Such an area could represent a habit, an emotion, a phobia, an interest pattern, an ambition. At a given moment the system could be conscious or unconscious; in either case, it may or may not have access to motor expression.

The task we have set ourselves in the study of personality structure includes the following elements: (1) identifying the major kinds of inner systems and, in the more important instances, developing detailed descriptions; (2) determining the basic raw materials from which these systems arise; (3) preparing a thumbnail history of at least a few typical systems; and (4) outlining the more important interrelationships of these systems.

Summary

The term "personality structure" is employed as an over-all descriptive concept for the total organization of behavior, feelings, percepts, and desires characteristic of each individual. Personality structure is considered to be psychophysically neutral, *i.e.,* neither body nor mind, neither conscious nor unconscious, neither visceral nor verbal.

The units of structure are organized systems. The system is any patterned unit which tends to persist and to resist change—habits, ambitions, ways of perceiving, ways of feeling. These systems are interrelated in varying forms to justify our description of personality structures in terms of complexity, fluidity, accessibility, resistance, and centralization.

In the development either of habits of behavior or of perceptual frames of reference, individual variations can be conceptualized in terms of a fairly simple framework, the basic dimension being a gradient of approach-withdrawal or approval-disapproval. The inner systems of belief and expectancy, which make up the nuclear personality, lend themselves readily to description in these terms.

Implicit and overt, conscious and unconscious, manifestations of personality are continuously interrelated, interacting, and interchangeable. These relationships obey psychological principles, the elucidation of which must be left for future chapters. The fact that two systems happen to carry the same verbal label, however, should not be interpreted as proof that they are equivalent or interchangeable.

Suggestions for Reading

The treatment in this chapter leans heavily on the writings of Kurt Lewin, particularly *A Dynamic Theory of Personality* and *Principles of Topological Psychology;* some of the points were suggested by Andras Angyal's *Foundations for a Science of Personality.* The frame-of-reference concept is well treated in Cantril's *Psychology of Social Movements.*

CHAPTER V

DEVELOPMENT OF PERSONALITY: BASIC PATTERNS

We have started with the general principle that personality is a genetic phenomenon, that it is a continuous developmental process and can be understood only in the light of its history. We have also outlined a theoretical framework within which this development is conceived as taking place. It is now appropriate to consider the developmental process itself.

In this and the succeeding chapters, a picture will be presented of the evolving personality. This picture is highly schematic and is intended to cover general principles only. These are derived from diverse case studies and statistical analyses; they present that which is common to all growing personalities. The principles, however, are believed to be adequate to the explanation of deviations and of abnormal personalities, as well as of the normal trend. In Sec. IV of this volume data will be presented regarding the impact of variations in environment upon the person. At present, only the typical situation will be examined.

Has the Infant a Personality?—We have defined personality as the individual's inner pattern of emotions, ideas, beliefs, and expectancies regarding himself and his environment. Can the newborn infant be said to have a personality in this sense?

The answer seems clearly to be "Yes." The distinction between Self and environment probably becomes sharply defined much later—perhaps, on an average, during the third year of life. On purely logical grounds, however, the personality must be intimately related to the physical organism and, thus, may be said to have some sort of existence from conception onward. Because of the painful character of the birth process, the newborn must be assumed to have a generalized expectancy that his environment is going to be unpleasant.[1] This anticipation is, of course, subject to rapid modification. Gesell mentions a newborn infant who cried

[1] Compare the interesting but somewhat imaginative treatment by Otto Rank, *The Trauma of Birth*, which seems to trace all adult personality disorders back to this early shock, especially to the separation from the mother.

upon being picked up; a few days later, he cried upon being laid back in his crib.

From birth onward, individual differences in personality begin to be noticeable. Children vary in amount of crying, smiling, and motor activity. Soon they show differential responses to the presence of adults. Gradually a pattern is built up, from which the person never completely escapes. What factors go to make up this pattern?

Basic Reactions: Feelings

As has been suggested in Chap. IV, it is possible to skeletonize human activities and describe them as variations in approach-withdrawal and increasing-decreasing energy level. Corresponding to these, we find substantial evidence for the existence of four basic feelings, pleasantness and unpleasantness, excitement and depression. The presence of inherent patterns corresponding to the first three of these in the young infant can scarcely be questioned. As regards depression, there is some controversy, which may be due chiefly to the fact that some maturity of intelligence and perception is necessary before such a feeling could be plausibly elicited. We believe that the balance of evidence favors the view that depression is an innate reaction pattern.[2]

The infant's interpretation of his environment and his reactions to it may be assumed to start at a neutral point. As various concrete experiences arouse feeling tones, he begins to establish appropriate conditioned responses, and he also develops a modified view of the world about him; in other words, he begins to develop a frame of reference, or a set of expectancies about his surroundings. This marks the observable beginning of personality differentiation.

1. **Pleasantness.**—The introspective quality of pleasure or pleasantness is well known to all of us. The overt behavior associated with this feeling is also easy to identify at most levels, although adults sometimes find it necessary to dissimulate pleasure. Observers agree readily on the manifestations of pleasure in infants, whereas such agreement is difficult to obtain when specific emotions are assumed to be present. As we see it, emotions are learned reactions based upon feelings, rather than being in themselves inherent patterns.

Sweet tastes, moderately warm temperatures, and stroking of sensitive zones of the skin, elicit pleasure responses in very young children. If a baby has the good fortune to be born into a family where he gets

[2] Relevant evidence can be found in the fields of neurology, psychiatry, child psychology, and adult introspections. A detailed analysis is presented in the article by Harlow and Stagner (1932).

plenty of care, is fondled, and is kept well fed, dry, and comfortable, he will begin to expect pleasant stimulation and his outlook on life may be characterized as optimistic. With maturation, the child recognizes the parents as sources of pleasure, associates them with pleasant experiences, and learns to "love" them. On the perceptual side, it appears that the sight of the bottle, the parent, and so on, will be pleasing to the child; on the response side, we can speak of conditioned reactions, such as reaching, sucking, and the like. In terms of long-range personality development, it seems wise to emphasize the fact that the child begins to formulate a *perception* of himself in relation to his environment, in which he holds a secure status in a cozy, friendly world. Over a long period of time, the kinds of stimuli evoking pleasure and the overt responses manifest will change markedly. Introspectively, however, the pleasure from a "good deed" and the pleasure following a "good meal" seem identical. The processes of learning seem adequate to explain the development from the simple, infantile pleasures to the complex enjoyment of adult experiences. The psychoanalysts hold that adult pleasures often are truly reenactments of infantile situations; thus a liking for passive dependency upon a leader is considered to be a sort of reinstatement of the pleasure that the child received in his passive acceptance of food and care from his mother. Whether or not this view is correct, it is certainly clear that the kinds of stimuli which evoke pleasure and the way in which the individual expresses his enjoyment become important aspects of the adult personality.

2. **Unpleasantness.**—According to the present view, there is no qualitative distinction between pain (usually described as a sensation) and unpleasantness (usually identified as a feeling). This point has been supported by various investigators on the ground that pain, when dissociated from the contact sensations which normally accompany it, is just as much a general unlocalized feeling as is pleasure. Ribot (1897) has asserted that "There is a fundamental *identity* between physical and moral pain . . . they only differ from each other in the point of departure, the first being connected with a sensation, the second with some form of representation, an image or an idea."

The child at birth has an innate tendency to experience unpleasant feeling as a consequence of certain stimuli. Loud sounds, cold, pinpricks, and various other forms of stimulation arouse responses in the infant, and observers are generally agreed that these states must be unpleasant in nature. On the other hand, Watson's claim that infants display innately the emotions of rage and fear has been questioned by

many subsequent investigators, *e.g.*, Sherman (1927). Probably rage and fear develop later, on a basis of unpleasantness, rather than representing inborn response tendencies.

The child who develops a secure attitude toward his environment because of a sequence of pleasurable stimuli has his parallel in the infant who encounters a great many unpleasant situations. If he is irregularly fed, given little caressing, and left cold and wet for long periods, or even subjected to pain, his expectancies from the environment will be determined accordingly. He will anticipate pain and misfortune at every turn and will adopt characteristic methods of protecting himself against these threats. Because of the wide variety of such protective measures, it is best to focus attention on the inner aspect, and to identify the *insecure* child as one who anticipates unpleasantness in his contacts with the outer world.

On a more specific level, it is easy to point out that we dislike and withdraw from persons or objects associated with pain in earlier experience. If you have been beaten by a nurse who has red hair, you may in later life manifest a strong aversion for red-haired persons, without any awareness of the origin of this feeling. Even the fact that the hair color is the significant determinant may not be observed. Feeling tone can become so embedded in a percept that it is impossible for the average individual to identify it separately.

3. **Excitement.**—The feeling of excitement is introspectively quite easy to identify in the adult. Children show it readily in response to novel stimuli or to stimuli which are extremely pleasant or extremely unpleasant, by exhibiting marked overflow of motor impulses, inability to concentrate, response to irrelevant stimuli, and so on. Schoolteachers know well how difficult it is to keep order when the children feel excited.

Stratton (1928) and others have attempted to treat excitement as an emotion. For example, Stratton refers to it as an "undifferentiated" emotion. The exact difference between an undifferentiated emotion and a feeling, he does not make clear. Certainly if excitement were an emotion, it would be in a class by itself, for all other emotions are characterized by the possession of an object (stimulus toward which the emotion is directed) and a direction (toward or away from the object). Excitement may be diffuse, generalized, and undirected, as the very experiences cited by Stratton emphasize. It thus seems more correct to define excitement as feeling than as emotion.

Excitement, like pleasantness and unpleasantness, has characteristic reflex responses in infants. It is also associated with a general *facilita-*

tion of all overt movements. It readily disappears spontaneously with repetition (negative adaptation). Pleasant stimuli lose some of their potency with repetition, and satiation may even cause them to become temporarily unpleasant (overindulgence in a preferred food). They will usually, however, revert to normal after a lapse of time. Exciting situations, if repeated regularly, seem to lose their feeling tone permanently. There are individual differences in this respect, which may be related to functional characteristics of the nervous system. Many psychologists are, in fact, inclined to suspect that there are hereditary constitutional factors predisposing individuals toward an excess or a deficit of excitability.

Depression.—The evidence for the view that depression is an inherent response tendency is not so satisfactory as for the three other basic feelings. The nearest thing to an observable behavior pattern is the tendency to *inhibit* all activity when depressed. The study of animals, which supports most of the statements made regarding pleasure, unpleasantness, and excitement, lends only occasional evidence (*e.g.*, from pets) regarding a depression pattern. Infants, likewise, show few reactions which can be so classified. Hollingworth holds that *grief* is one of the innate emotions, but his arguments seem more relevant to the case for depression. Introspectively it would seem that depression provides the general undifferentiated feeling tone for grief, with unpleasantness also entering the pattern.

The status of depression as an elementary feeling is most strongly indicated by the evidence from psychopathology. Individuals afflicted with manic-depressive psychosis, for example, are commonly characterized by swings from a phase of general excitement to one of acute depression. This depressed state is manifest in lowered motor activity and verbal output, in extreme slowness of response to questions and stimulation, and in facial expressions of a characteristic pattern. Cameron (1945) describes depressed psychotics as "encased in inhibition." Such patients are often unable to give any reason for their feelings; the depression is a diffuse phenomenon, not attached to any specific stimulus. Certain brain injuries also set off acute depressive reactions, in the absence of adequate external situations.

Individual and Cultural Determinants.—The pattern of feelings incorporated into the developing personality will be a function of two sets of factors: definitions laid down by the culture, and accidents of the individual biography. The child's "proper" feelings about his parents are imposed by *social expectancies*. Failure to express the appropriate feelings on any occasion will meet with criticism or even punishment. To

avoid these, the child learns to mimic and probably, in time, to feel as society dictates he should. The clearest illustrations come, of course, from larger social relationships, such as one's feeling about the nation's flag and other symbols.

Much of personality is shaped by these social patterns. In the traditions of family, church, and nation, certain situations are defined as pleasant, unpleasant, exciting, or depressing. The differences between the "volatile Latin" and the "phlegmatic Briton" are chiefly matters of cultural expectation. In a family with a military tradition, admission to West Point might be a very pleasurable experience—failure, a cause for depression. The playing of social roles—*e.g.*, as girl or as boy—is to a considerable extent a matter of adopting the culturally defined view of proper feelings and behavior. Children growing up in a "smart-set" family acquire patterns of feeling, perception, and behavior different from those of a working-class family.

Over against these cultural factors shaping personality, we must recognize the importance of *individual* experiences. Many contacts with people, animals, and objects are unrelated to the social code. The particular concrete situations which are vividly pleasant, shockingly painful, or otherwise distinguished in the child's life will also mold his responses and expectations. To the extent that we are interested in general laws of personality development, we must recognize the importance of both cultural and individual experiences, and in fact it will often prove difficult to separate them in a specific case.

Physiological Correlates of Feelings.—It is not possible to paint a complete picture of the role of feelings in personality without giving some consideration to the physiological changes basic to and associated with them (Fig. 7). Feelings are, in the first place, intimately involved with the thalamic area in the brain and with the autonomic nervous system. Pleasantness is often, although not always, related to activity of the parasympathetic (cranio-sacral) division of the autonomic, the section which speeds up digestion, slows down the heart rate, and generally leads to relaxation. Unpleasantness is likely to involve activity of the sympathetic (thoracic-lumbar) region of the autonomic, which accelerates the heart, raises the blood pressure, shunts digestion aside, and generally prepares for violent action. Excitement, whether in a context of pleasant or of unpleasant feeling, is associated with the physiological effects listed for unpleasantness. The visceral picture in the case of depression is confused.

The relation of feelings to the autonomic nervous system bears on the general problem of conscious control of behavior. People are often exasperated to learn that the mere conscious decision to change a certain personality trait is ineffective. Similarly, verbal pressure upon others to change their behavior frequently fails to achieve this purpose. One important reason is that the

autonomic nervous system is *not* under direct control of the central nervous system. It is not possible, deliberately, to change your blood pressure, pulse rate, digestive action, and other visceral functions which are intimately related to your feelings and emotions. This is a major consideration in man's inability to control his aversions, fears, enthusiasms, and moods.

The nature of these physiological processes and the mutual antagonism between the effects of pleasantness and unpleasantness must be kept in mind if certain other data are to be correctly interpreted. It has long been known, for

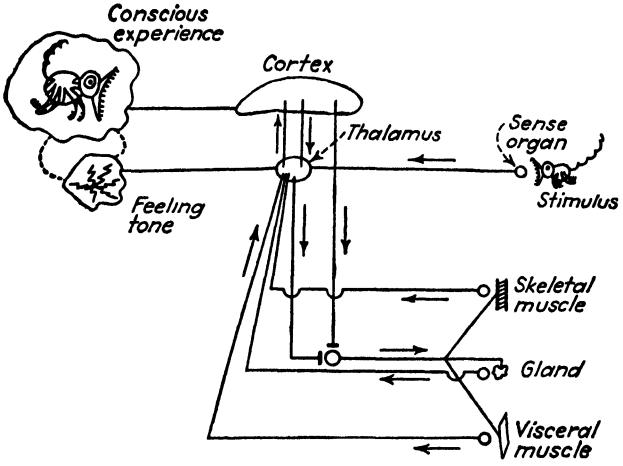


FIG. 7.—The reactive components of affective response. A stimulus ("frightful object") is shown at the right. Afferent nerve impulses go to the thalamus (arousing feeling tone) and to the cortex (arousing perception). From cortex and thalamus go impulses arousing skeletal, visceral, and glandular responses which in turn send back impulses which reinforce the conscious experience. (*From Harlow and Stagner,* 1933.)

example, that personal maladjustment is often associated with the occurrence of stomach ulcers. This can be related to the effect of prolonged excitement and unpleasant feeling upon the digestive process. Maier and Parker (1945) found that even rats will develop stomach inflammations from repeated exposure either to unpleasant auditory stimuli or to a painful conflict situation.

There seems to be substantial reason for believing that differences in *temperament* are related to the reactivity of the autonomic nervous system. Some personalities show quicker and more intense affective reactions than others; they are likely also to return to normal more slowly. This generalization seems to hold true of all types—whether predominantly pleasant or unpleasant, excited or depressed.

Feelings Basic to Personality.—To this point, the argument briefly is this: The four feelings, pleasantness, unpleasantness, excitement, and depression, are innate response tendencies of the human organism. They

are manifest in consciousness, lending their characteristic flavor to sights, sounds, and other percepts, and becoming an intrinsic part of these percepts. They also set off certain striped-muscle (gestural, vocal) responses and certain visceral patterns. In the course of individual development, these are often woven into complex integrations and may have little apparent connection with the simple basis with which we started. The relationship to the adult personality is none the less important.

We acquire characteristic likes and dislikes, and ways of reacting to them; we habitually become excited by some situations and depressed by

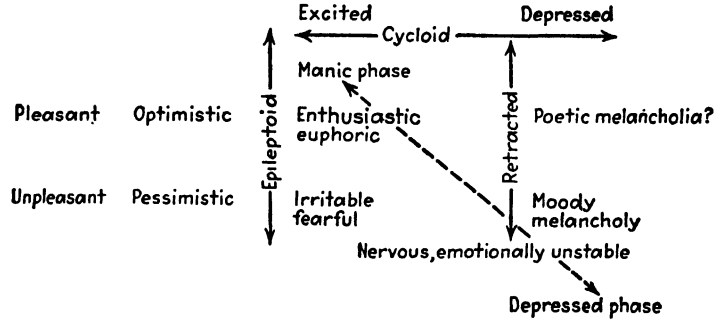


FIG. 8.—Possible relationships between the four affective responses and various personality characteristics.

others. Around these basic reactions our external personality (stimulus) is so organized that it is easily recognized by our friends. To avoid social criticism, we may find it convenient to develop a "mask," a conventional personality showing the appropriate feelings, even though this manifestation is purely superficial. Conversely, we may have deep feelings about a situation without knowing why and without being able to control them.

Most personalities are sufficiently complicated by varying patterns of feeling tone that it is impossible to make any precise statements about the relative importance of any single feeling or combination of feelings. For the sake of illustration, however, there is presented in Fig. 8 a diagram of the probable relationships between some extreme personality tendencies and the relative dominance of particular feelings. Some confirmation of the accuracy of this schema is offered in a study by Burt (1938) of English school children. When the aspect of general emotionality was held constant, Burt found evidence for the existence of two bipolar factors in his data, one corresponding to the relative dominance of pleasant or unpleasant emotions, the other to relative dominance of aggressive or inhibitive reactions. The parallel to the outline offered in Fig.

8 is obvious. It will also be noted that the traditional four temperaments of Hippocrates—the sanguine, choleric, phlegmatic, and melancholic—correspond fairly well to the four major points on this figure.

Emotions

The point of view set forth here classifies emotions as fairly complex experiences, involving the recognition of a stimulus object, the arousal of one or more feeling tones, and generally an awareness of appropriate action (although action may not be overtly manifested). Love, for example, involves the awareness of a specific person, plus an anticipation of pleasure from contact with that person. The differentiation of marital love from love of parents might be found chiefly in the addition of excitement. Fear and anger are conceived as being similar in the elements of unpleasantness and excitement, but different in the action upon the stimulus which is considered appropriate (fighting versus running away). This view seems to harmonize rather successfully with the experiments on facial expressions and visceral changes in emotional states.

Personalities can be described with greater precision if we focus on emotions than if we limit ourselves to the study of feelings. Of any given individual it is important to know, not only his predominant feeling tone, but also the objects upon which these feelings are directed. A person who finds his major pleasure in work is different from one who finds his pleasant experiences mainly in the pursuit of the opposite sex. Psychoanalytic descriptions of personality stress quite heavily the types of pleasure desired and the form of the relationship considered to be most pleasant (see Chap. XV).

Specific Emotional Trends.—The development of the child's personality will be related to the *frequency, intensity,* and *duration* of specific emotions.

The secure child will have a preponderance of pleasant emotions, such as love, friendliness, joy, and enthusiasm. However, there are different degrees of the feeling of security, and there are also individual differences among children all of whom could properly be called "secure." These differences give to each person his unique characteristics.

The insecure individual will have many unpleasant emotions, such as fear, suspicion, jealousy, and anger. These responses are also likely to be much more intense and enduring than unpleasant reactions in the secure child. The development of a specific emotional pattern—*e.g.,* suspiciousness—may give a characteristic color to the personality throughout life—*e.g.,* the "paranoid" individual.

In this connection, it should be noted that every child needs an ade-

quate variety of emotional experiences, both pleasant and unpleasant. A boy or a girl who has no fear or suspicion whatever of other people is not too well prepared for life in our competitive culture. Furthermore, we can sympathize with others only if we have had experiences in some degree similar to theirs. A person who has never encountered any misfortunes cannot truly appreciate the position of those who suffer. An ideal child-rearing program, therefore, would give the growing personality a sufficient breadth of emotional situations, but not an excess. A child plunged into excessively stimulating surroundings before he has acquired the sense of reality and perspective necessary to keep his balance must inevitably develop an unstable personality.

Acquisition of Verbal Labels.—As the child matures, he not only develops a wider variety of emotional perceptions and responses, but he also acquires verbal labels with which to report his feelings to adults and to talk to himself. These verbal reactions are important as means of communication, but they may also serve to confuse issues. Pratt (1945) has recently called attention to the danger implicit in taking the child's own verbal account at face value. He found that "lions and tigers" were reported as the commonest fears of young school children, most of whom had never seen either animal. It may be that children who report fears of distant objects actually fear something closer at hand but, consciously or unconsciously, displace the emotion onto a different stimulus. The mechanism by which this is accomplished will be discussed later; at this point, we desire merely to emphasize the distinction between an emotion and its verbal label.

Influence of Emotion upon Perception.—The existence of an emotional state has a profound influence upon what we perceive in the world about us. An angry individual encounters many situations which seem frustrating to him; a suspicious person finds many incidents which appear to justify his attitude. This may be a matter of selectivity of observation (some aspects of the environment are noticed, others ignored); or the person may act in such a way as to elicit certain behavior from others; or it may be a question of how we interpret our experiences. Evidence for the latter view is advanced by Leuba and Lucas (1945). They hypnotized college students and induced successively happy, critical, and anxious moods. A set of six photographs was presented to the subject in each mood (forgetfulness was induced after each presentation to avoid carry-over of previous descriptions). The typical account given of each picture varied according to the emotional state; the descriptions given when S was "happy" could hardly be recognized as relating to the same scene described when he was "anxious."

It seems likely, on the basis of other studies of hypnosis and suggestion, that the effect of these processes depends on language. That is, the effect of hypnotic amnesia is not necessarily to wipe out a memory; rather, it blocks the verbal report of that memory. Consequently, it would seem plausible that Leuba and Lucas have demonstrated the effect of a verbalized attitude upon observation. This is not a damaging criticism. In everyday emotional states we constantly talk to ourselves and verbalize —aloud or otherwise—our inner feelings. There is thus ample basis for assuming that their results are appropriate.

Language and emotion are intimately intertwined. Here we have another important facet of this relationship. The emotional state determines the value of a perceived situation. When happy, we see our surrounding environment as pleasant. This is another way in which the early occurrences of love, anger, and fear tend to channel the personality into a specific developmental pattern.

Frustration and Conflict

The child at birth is capable of experiencing various feelings, and either then or a short time later, he shows the more complex responses called emotions. Also soon manifest are characteristic reactions to conflict and frustration. These, too, enter into the process of personality development.

Valence.—Kurt Lewin has introduced into psychology the concept of valence—the attraction or repulsion value of an object for an individual. Lewin has a tendency to speak of valence as if it were an objective phenomenon, but refers primarily to the fact that we see objects as if they were invested with valence. We certainly do not, in ordinary life, separate our perception of a landscape from the pleasure that we derive from the experience; a child sees a barking dog as an intrinsically unpleasant animal; and so on. Without attempting to adhere rigidly to Lewin's usage, we propose to introduce the concept of valence to refer to the qualities perceived in external stimuli which operate to attract (positive valence) or to repel (negative valence).

The introduction of the neutral concept, valence, will simplify certain terminological problems which will arise in later discussions. An obvious example comes from the field of *conflict.* A boy may have a strong desire for sexual experience, but he is also afraid to indulge in sexual acts. This fairly complicated situation reduces to a simple picture of an individual approaching an object which carries both positive and negative valence for him (see Fig. 10). This is valuable because a wide variety of concrete situations reduce to the same formula, and all of them have relatively similar implications for personality development.

Frustration and Conflict.—We postulate an inherent tendency to approach positive valences (pleasant stimuli).[8] Under various conditions, such as the presence of a physical barrier or prohibition by social rule, the individual cannot reach the valent object (Fig. 9). In this situation we speak of *frustration.* It is obviously difficult to draw a sharp distinction between frustration and conflict (*cf.* Fig. 9 and Fig. 10). Reduced to simplest terms, frustration means that the individual is prevented from reaching a positive valence; conflict implies that, if the individual achieves the positive goal, he must also accept punishment or some other negative valence. In many cases it will be impractical to differentiate these circumstances; *e.g.*, a child might smash a physical barrier preventing him from obtaining a desired object, but in so doing he would lay himself open to punishment. Generally we shall speak of frustration when emphasis is on failure to obtain, of conflict when emphasis is on inability to choose because of the intensity of both positive and negative pressures.

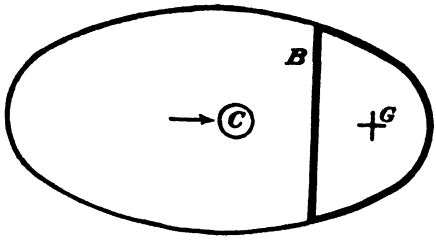


FIG. 9.—Frustrating situation. Child *C* is impelled by positive valence toward goal *G* but is blocked by barrier *B*.

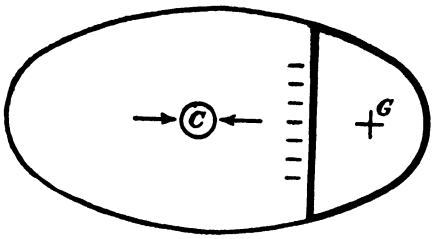


FIG. 10.—Conflict situation. Child *C* is impelled by positive valence toward goal *G* but is repelled by negative valences (fear of punishment, injury, anxiety).

Reaction to Frustration.—Insofar as we can identify an innate pattern of reaction to a frustrating situation, it seems to be that of *aggression.* An infant deprived of his bottle will flail his arms around, cry, and behave in a way suggestive of rage. When older children are barred from a desirable toy by a wire screen, they will attack the screen, scold the experimenter, and become generally destructive. There are other reactions to frustration in these older cases, but the aggressive pattern comes closest to meriting the label "inherent."

[8] To complete this picture, it would be necessary to consider the various drives—hunger, sex, etc.—which in some way determine valences. For reasons of expedience this discussion is postponed to Chap. XVI.

Reaction to Conflict.—Because the idea of conflict implies some prior experience, such as punishment for gratifying some desire, it is difficult to say what innate tendencies may be involved. *Indecision,* manifested by alternate approach and withdrawal, is the earliest characteristic response. *Evasion,* by denying the existence of the positive valence ("I don't want it"), by closing the eyes, or by physically leaving the situation, is another early reaction. The individual really has very few alternatives until learning has broadened his behavior repertoire. Learned responses to frustration and conflict will be treated in later chapters.

Biological Endowment

Over and above the response tendencies described in the preceding pages, such as feelings and emotions, and reactions to frustrations and conflicts, our survey of basic equipment should include brief mention of some organic structures.

The *autonomic nervous system* is a significant factor in determining individual differences in personality and in influencing the developmental sequence in a given individual. Various studies have shown that differences in *arousal, duration,* and *control* of autonomic functions are important. That is to say, measures of autonomic activity differ from person to person as regards ease of setting off changes in blood pressure, psychogalvanic reflex, pulse, rate, and so on; in the length of time required for these functions to return to normal; and in the extent of control of visceral functions. A good deal of evidence (*cf.* Chap. XVII) supports the view that these variables are related to personality traits in adults. There is also some reason to believe that the development of the young child is influenced by these characteristics of the autonomic nervous system; *e.g.,* a child with a highly reactive autonomic will probably acquire conditioned emotions more readily and thus will develop attitudes and expectancies rather different from his brother, whose viscera are less sensitive.

The *central nervous system,* particularly if we think of it as the organic basis of *intelligence,* also must be considered an important determiner of personality. We have already emphasized that the perception of situations, learning new patterns of behavior, anticipation, and imagination are significant features of personality. All these functions are related to degree of intelligence. This does not mean, however, that any particular patterns are associated with any given level of intellectual ability.

Finally, it is clear that the *endocrine glands* are important. While the evidence (*cf.* Chap. XVII) is not clear cut, there is reason to suppose that

differences in adrenal, pituitary, and other secretions may predispose the individual to develop an excitable, sluggish, irritable, or tense personality.

Summary

In this chapter we have sought to identify the foundations, the basic materials which go into the process of personality development. They include certain apparently innate reaction patterns, such as the feelings, and perhaps some simple emotions, mechanisms of reaction to conflict and frustration, and certain sensitizing and energizing factors, such as the quality of the central and autonomic nervous systems and the endocrine glands. The impact of the environment upon this biological endowment results in learning and, consequent to the learning process, are developed those characteristic responses which integrate to form what we call personality.

Suggestions for Reading

Good discussions of the feelings and emotions in relation to personality will be found in Chap. II of Sherman's *Mental Hygiene and Education,* in Chap. V of Richmond's *Personality: Its Development and Hygiene,* and in parts of various chapters of Shaffer's *Psychology of Adjustment.* For a very good treatment of the characteristics of infantile and mature personalities, and the emotional changes involved in growing up, see Luella Cole's *Attaining Maturity.*

CHAPTER VI

DEVELOPMENT OF PERSONALITY: SIMPLE LEARNING

From the moment of birth onward—perhaps even prior to birth—the child develops through learning. The impact of the environment leads to changes in perception and behavior; the external world no longer looks the same, and the child's reactions now are different. In this chapter we shall present schematically the earliest and simplest forms of learning as they come to play a role in personality development.

Watson's Conditioning Experiments.—Following the pattern of Pavlov's famous studies on the conditioned salivary secretion in dogs, J. B. Watson [1] conducted experiments on the conditioning of emotions in young children. As pioneer investigations in this vital area, Watson's researches are justly famous, although many psychologists would today question his theoretical conclusions.

Watson found that, if he presented a white rat (pleasant on first appearance) to a young child, and simultaneously produced a loud, harsh, unpleasant sound by striking a steel bar with a hammer, the child shortly began to show signs of fear upon seeing the rat. Only three to four combined repetitions of rat with sound were required to elicit crying and attempts to crawl away as soon as the rat was shown.

Watson interpreted this as evidence that a specific stimulus (rat) had become attached to a specific response (fear). It might seem more satisfactory to say that the quality of the rat as perceived has been changed. Formerly neutral or pleasant, the rat is now definitely an unpleasant stimulus to the child. The result of the experiment has been to *change the valence* of this percept.

A home situation characterized by a great deal of shouting, hunger, unnecessary pain, and similar unpleasant conditions will operate through this mechanism to determine the child's basic approach to his environment. Almost all his surroundings—people, animals and objects—will by this process of joint presentation with negative valences also acquire

[1] For an account of his own and other studies and for his interpretations, see Watson (1924).

negative valence. He will then see his environment as threatening and unfriendly.

Conversely, the child who is fed, petted, and comforted by adults will be conditioned to respond pleasantly when they appear. That this conditioning process depends upon definite stimuli, just as in laboratory experimentation, is confirmed by an unusual study by Dennis (1941). Dennis reared two infants in an environment with practically no social stimulation, for a period of several months.

"It was found that visual stimulation from the experimenters caused smiling, although the experimenters had not fondled or petted the infants. This appeared to be because the visual appearance of adults had been associated with the feeding, bathing, cleaning and dressing of the infants. This interpretation was corroborated by the fact that early in the experiment the speech [2] of the experimenters, in contrast to the visible presence of the experimenters, did not cause smiling. Smiling upon verbal stimulation occurred soon after the investigators began to announce their entrance to the nursery and to speak to the subjects while attending to their wants." [3]

The excellent studies by Goldfarb (1943, 1944) also deserve mention here. Goldfarb finds that the environment of an institution has a drastic effect upon the child's later security if the child enters before the age of eighteen months. Children who have the benefit of a normal family life for the first two years and are then placed in institutions do not show the same disintegrative reactions.

The Behavioral Environment.—The determination of behavior depends only partially upon our physical surroundings. We move in a perceptual world, colored by our past experiences. Two children, one conditioned to fear rats and one conditioned to like them, may see the same *physical* rat; but their behavior is different because each responds to his *percept* of the rat, and that percept differs.

It will eliminate many confusions, therefore, if we understand that all human behavior occurs in a *behavioral environment* (*cf.* Chap. I) which is to some extent unique for each person. Norman Thomas is the same physical individual, whether seen by a Socialist or by a Republican; but he is perceived by the two observers as possessing quite different qualities. A jitterbug contest is seen by a bobby-sox addict as an enjoyable affair and by a college professor as a moronic exhibition. These differ-

[2] In the earliest weeks, the experimenters avoided speaking in the nursery, so that they could ascertain the age at which the children would vocalize in the absence of speech stimulation.

[3] Dennis (1941), p. 148. Reprinted by permission.

ences in the quality of the environment reflect—we might say, they are—differences in personality.

The direct embedding of valence in a percept, by the process of combined repetition in pleasant or unpleasant situations, is perhaps the fundamental process in the molding of personality. There are, however, some special experiments which highlight some important features of this developmental process. These will be reviewed briefly.

The Conditioning of Visceral Responses.—Menzies (1941) demonstrated that it is possible to condition constriction of blood vessels to an external stimulus. In the early parts of the study, an electric light went on, illuminating two crosses; the subject whispered "crosses," and the skin of the arm was suddenly chilled. Soon a drop in skin temperature resulted from the visual or auditory stimulus without any actual temperature change (conditioned constriction of peripheral vessels). Some subjects developed the ability to make the skin cool off simply by thinking "crosses." The resemblance of this experiment to flushing and paling in learned emotional situations is obvious.

The reason for the very slow acquisition of these reactions in the laboratory, as opposed to the speedy learning of such responses in everyday emotional situations, naturally casts some doubt on this statement. It seems likely that the fundamental mechanism is identical, but that various special considerations account for the difference in speed. One is the *quality of the stimulus.* Most observers find, for example, that conditioned emotional responses to live animals are established promptly; whereas toy animals are effective only after prolonged practice, if at all. A second factor is the presence of *inhibitions* in the laboratory, resulting from the unusual character of the surroundings and the mental attitude set up in the subject by the knowledge that he is being experimented on. A third is the variable of *motivation*—real-life situations of an emotional character usually involve some possibility of success or failure, gratification or injury; whereas the laboratory setup rules this out.

One application of this phenomenon to personality is illustrated by Fig. 11*A, B.* Feelings, it will be recalled, set off visceral, gestural (manual), and conscious (language) effects. Through combined repetition, each of these may become capable of arousing the others. Thus a stimulus arousing a visceral effect may, in consequence, release the whole complex of feeling responses. Airapetyanz and Bykov (1945) demonstrated that a visceral stimulus (cold water introduced into the stomach of a dog) could function as a conditioned stimulus for an overt movement, such as leg flexion.

The presence of a *characteristic feeling tone* in a given personality

may be related to a similar mechanism. Depression, for example, has its characteristic pattern of visceral, muscular, and language responses. The recurrence of any of these may set off all the others. The *intensity* of responses to some apparently insignificant stimuli may likewise be ascribed to the reinforcing effect which clearly is inherent in this situation. *Empathy* and *sympathy* also depend on inner circular associations. We feel sad when others cry because our own tears have been associated with personal unpleasantness. The perception of emotion, effort, or strain in another resembles our perceptions of ourselves in similar circumstances, sufficiently to set off these responses.

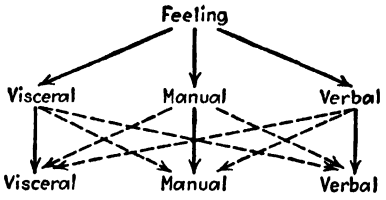


FIG. 11*A*.—Feelings lead to responses, and these responses become associated.

The characteristic effects of illness and of certain drugs upon personality can be related to this same phenomenon. In the case of indigestion, visceral changes may resemble those of anger, fear, or depression. The readiness of these responses to "go off" is thus heightened. Further, the environment is likely to have a distinctly unpleasant coloration under such circumstances. The sick man is therefore more irritable, depressive, or fearful than his normal trend would indicate. Myerson (1936) found that the administration of benzedrine to depressed individuals seemed to cheer them up considerably. The best explanation for this appears to lie in the changing of visceral state, with a consequent change in the interoceptive sensations arising in the viscera, and the associated feeling tone.

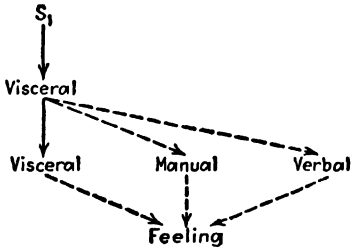


FIG. 11*B*.—Later a stimulus setting off any one of these responses may cause reinstatement of the entire response pattern and the original feeling.

Unconscious Conditioning.—The conditioning of visceral activity to new stimuli indicates that we may make many responses without being aware of them or without being able to control them consciously. *Subliminal conditioning* demonstrates experimentally that we can learn to respond to a signal even without being aware that the signal is present. In these experiments, a conditioning stimulus so weak that it is below the threshold (the subject is unaware of its presence) is presented, along with the unconditioned stimulus which produces a measurable response.

Baker (1938) found the auditory threshold for his subjects; he then used as his conditioning stimuli tones definitely below this level. Presenting this subliminal sound with a flash of bright light (which constricts the iris of the eye), he found that a single combination tended to produce conditioned pupillary constriction; after two combinations, the pupil contracted regularly and sharply to the subliminal sound without the light.

The significance of this process of subliminal conditioning is very great. It has long been necessary to assume that many personality traits were acquired without any specific awareness of the stimuli setting them off. Psychologists have felt sure, for example, that young children acquired many of their emotional habits and interpretations by responding to fleeting facial expressions, slight vocal inflections, and other minimal stimuli from their parents. These cues, it was assumed, were given by adults even when their conscious intent was to transmit a different idea. An extreme case of this type is reported by Dershimer as follows:

"The case of a nine-year-old boy who will be called Xavier. His mother complained that he would not get up in the morning until she went to his room, got him out of bed and dressed him. In efforts to correct this she had threatened him, prayed over him, punished him and finally brought him to the psychiatrist, all of which seemed to show a real desire on her part to correct the habit. She did not, however, follow the suggestion that she try letting him alone. And Xavier, after several interviews, disclosed that he believed she wanted him to wait until she came to dress him. His permission was obtained and the mother was informed of what the boy had said. She became tremendously embarrassed and finally admitted that it was correct.

"Despite all the behavior which seemed to prove that she wanted him to get up, he had recognized her stronger repressed desire to have him do the opposite." [4]

Here we have convincing evidence that the child was reacting to minimal cues from the mother's acts, even though she was consciously attempting to induce an opposite type of behavior. This point is also illustrated by the common belief that children are adept at distinguishing feigned from true affection. Minute differences in behavior may be effective stimuli even though the child cannot identify them consciously. The superiority of some adults as judges of personality may also be found in sensitivity to vocal inflections, facial expressions, and other cues of a slight and fleeting nature.

Conditioning Sensory Impressions.—The type of learning situation which we have described can result not merely in a changed response

[4] Dershimer (1938), p. 312. Reprinted by permission of *American Journal of Orthopsychiatry.*

pattern, but also in an actual modification of sensory experiences. The most dramatic study is perhaps that of Ellson (1941) in which auditory hallucinations were produced by the conditioning technique.

A light was flashed on, followed in a few seconds by a tone which gradually rose from subliminal to clearly, though faintly, audible strength, and then gradually subsided. After several repetitions, the onset of the tone was delayed, and it was noted that subjects would signal that they heard the tone before it actually began. By the end of the experiment, 80 per cent of the subjects reported one or more hallucinatory sounds, some reporting them quite regularly. In a control experiment, only 20 per cent hallucinated the tone; the difference clearly supports the view that training induced the "hearing" of the tone when the light went on.

In the preceding chapter the position was taken that experience can modify the perception of our environment. The individual, it was suggested, actually sees a different world as a result of his experiences. We are now in a position to support this claim by experimental data. As a result of the learning process, we may see aspects of the environment not previously noted, or we may actually hallucinate phenomena not physically present, but associated with present conditions.



FIG. 12.—Ambiguous figure. Do you see a beautiful young woman or an ugly old one?

Using more complex material, Leeper (1935) has obtained data which are even more significant for our purposes. Leeper presented an ambiguous figure (Fig. 12) to his subjects. This picture is readily interpreted by most observers as either an attractive young woman or an ugly old woman. He found that the presentation of a picture which eliminated the ambiguity in either direction (only one face discernible) *fixed* this alternative. It was now almost impossible for the subject to "see" the other aspect of the ambiguous figure. The effect of this training lasted for a considerable period of time.

The significance of this study is reinforced by the observation that many of our environmental situations are ambiguous in character. A dance may be perceived alternatively as a source of pleasant contact

with other people or as a source of probable humiliation through inferiority to others. Women may appear to a young man as perfectly delightful creatures, to be approached at every opportunity, or as possible dangers because of the threat to moral taboos. *If in early experience the child becomes fixated on one alternative view of a situation, later modification becomes progressively more difficult.*

Verbal Conditioning.—Another very important phase in the process of attaching new stimuli to affective and other responses is that dealing with verbal stimuli. As was noted in Menzies' experiment, the sound of a spoken word, even one spoken by the subject, can become a stimulus for a conditioned reaction.

Experiments on learning reactions to words are of particular interest, of course, because of the complexities that they open up. Language and thought are almost inseparable. Words are of tremendous importance in man's adaptation to his environment, because of their independence of concrete situations. Furthermore, as many psychiatrists have noted, confusions and misapprehensions of an essentially linguistic (symbolic) character are at the basis of many personality breakdowns.

It has been demonstrated in the laboratory that any word can, under appropriate conditions, become a conditioned stimulus for inner change. Furthermore, the responses can then be shown to *transfer* to words of similar meaning. This is important because of the tendency for emotions to spread from one experience (dog) to a class of experiences (animals), or to experiences which might stand in a *symbolic* relationship to the original case.

Riess (1940) presented printed verbal stimuli to his subjects and measured the electrical skin response to each. Along with certain words the subject then heard a loud, disturbing noise. (Any unpleasant stimulus will cause a sharp change in skin potential—the psychogalvanic reflex.) After several repetitions, the critical words showed this same galvanic reflex response. Transfer was demonstrated by showing that the conditioned reflex carried over to synonyms and, less clearly, to homophones (words with the same sound but different meaning).

Diven (1937) presented a discrete association setup to his subjects. In the word list, the words "red" and "barn" appeared several times, always in that order. After the subject had given an association to "barn" he received a mildly painful electric shock. On later tests, "barn" showed the greatest conditioned galvanic response, but "red" was also an effective stimulus; and *various "rural" words, such as "farm" and "hay,"* which appeared later in the list, were also conditioned. "Urban" words, such as "subway" and "pavement," did not show this carry-over. It appears that the subjects began to perceive everything associated with barns as unpleasant.

In connection with later discussions of unconscious mental processes, it is interesting to note that 20 of Diven's 52 subjects did not become aware of the fact that "barn" was the word which signaled the shock. This group was conditioned just as effectively as the group which identified the signal word; and on delayed testing, the "unconscious" group showed an even stronger galvanic response than the "aware" group.

The child from birth onward experiences a wide variety of situations which favor verbal conditioning. The word "Don't" is often presented—

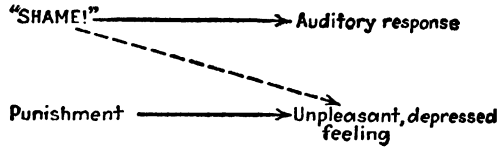


FIG. 13.—Verbal conditioning of affective reactions.

jointly, in many cases, either with unpleasant effects from the environment or with painful stimuli applied by the parent. Many words come to carry generalized values of a pleasant or an unpleasant character (Fig. 13).

It is impossible to overemphasize the significance of this process—attaching meanings, feelings, and actions to verbal stimuli. In everyday life we attempt to control others by verbal arguments and pleas. We also talk to ourselves, seeking through self-stimulation to elicit appropriate responses. Words may be used to call up images of past situations, to assist in anticipating future events, or simply as a circular rehashing of an occurrence. If the individual keeps saying to himself, "I am ashamed," "I was stupid," or "I am a failure," he will evoke the visceral responses and feelings which have become attached to these words, and his attitudes and behavior will be colored accordingly (Fig. 14).

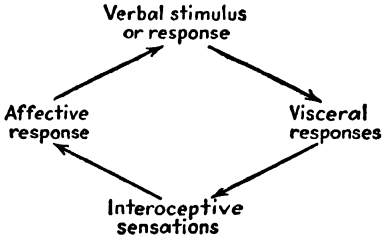


FIG. 14.—A cyclical relationship of stimuli, responses, and feelings. This may account for many cases of chronic emotional upset.

This cycle is complete and, consequently, can be initiated by the visceral as well as by the verbal factor. Thus, a visceral change induced by illness or tension may resemble that of depression sufficiently to set off the depressed feeling. The person may then verbalize in a manner appropriate to the depression, thus reinforcing the process. The original cause of

the unpleasant feeling may be forgotten; the individual then evokes new verbal symbols of his misfortune. "Why was I so depressed? It must have been because I did something very shameful. It must have been that I . . ." Thus in neurotics and psychotics we frequently get verbalizations which are clearly contrary to fact: the person "remembers" something which did not happen, but which is congruent with his prevailing visceral and affective condition.

Conditioned Avoidance Responses.—As a final group of conditioning experiments which throw light on the development of personality, we shall examine some typical studies of conditioned inhibitory and avoidance responses.

Pavlov (1927), pioneer in the field of conditioning, reported that it was possible to endow a stimulus with inhibitory as well as excitatory qualities. By appropriate training, for example, a dog could learn to salivate at the sound of a bell, but not to salivate when a bright light accompanied the bell. The light thus functions as an inhibitory agent. It was also possible to make a circle the positive stimulus, an ellipse inhibitory. The conditioning of negative effects is more readily demonstrated, however, if we employ a movement response. It is possible, for example, to teach animals not to take food while a buzzer is sounding, a situation somewhat analogous to teaching a child under what conditions he may eat, speak, indulge sex impulses, and so on.

Mowrer and Ullman (1945) gave rats an electric shock if they took a food pellet during the first 3 seconds after it fell into the box. They found that the rats were capable of learning to inhibit the eating activity only if a buzzer sounded up to the time the rat ate and received a shock. The buzzer, if sounded one second as a warning, was ineffective in signaling the danger of a shock. If the buzzer continued until the "forbidden" response and its punishment occurred—but not after—fairly prompt learning took place. If the buzzer continued for several seconds after the shock—like a nagging parent?—learning was very poor.

Likes and Dislikes.—It was John Ruskin, a keen student of human nature, who once remarked, "Tell me what you like, and I'll tell you what you are." Our patterns of pleasant and unpleasant perceptions determine the overt behavior which influences other people.

Most of our likes and dislikes are based less on the intrinsic qualities of objects than on the verbal symbols of objects. The following illustration is in point. "My little boy believes he dislikes soup. Whenever soup is set before him, he objects strenuously. However, I have found that this can be overcome. I say: 'This is not ordinary soup. This is chicken soup, and you have always been very fond of chicken soup.' No matter what kind of soup it really is, he then eats it with every sign of enjoyment."

Every person who has dealt with children will recognize this tendency to react to verbal labels as against external reality. Failure to take this into consideration must inevitably lead to difficulties. Similarly, we find in working with problem personalities that much of their maladjustment is related to incorrect perception of the environment and seems to be based on the use of inappropriate verbal labels. Thus, for example, a neurotic young woman has a hand-washing compulsion which is ascribed to a fear of germs. Psychoanalysis ultimately reveals that the "germs" involved are venereal-disease germs and are symbolic in character; that the true fear is one of giving in to strong sexual impulses. The word "germ" has become separated from its proper context and carries with it the intensely unpleasant feeling tone relating to sexual immorality, rather than the mildly unpleasant feeling one might normally have about bacteria.

Recapitulation

So far we have considered controlled laboratory experiments which confirm the following hypotheses about the learning function in personality development: (1) A neutral stimulus may acquire an unpleasant feeling tone (or a pleasant tone). (2) Neutral stimuli can become conditioned to visceral responses which are not subject to conscious control. (3) This process continues even when the neutral stimulus is so weak that it cannot be consciously perceived. (4) A specific sensory quality may be aroused by a sensation from an entirely different modality. (5) Once a given way of perceiving the environment is learned, alternative ways become more difficult to learn. (6) Responses and affective tones can become associated with words and will transfer to words of similar sound or meaning. (7) The individual can learn to inhibit response tendencies when a given stimulus is present, or he can learn actively to avoid the stimulus.

These findings fit admirably with the general framework proposed for the description of personality in Chap. IV. It was suggested there that the most important phase of personality was the individual's characteristic manner of perceiving his environment, and that this could be analyzed in terms of constructs called frames of reference. These frames of reference were conceived as scales of judgment spontaneously developed by each person from his own experience. Frames of reference, furthermore, are built around strikingly pleasant and unpleasant experiences, which serve as anchoring points for these evaluative scales.

According to the experimental findings reported, every personality is capable of learning a unique manner of perceiving the environment. Our judgments of other people (in general or in specific groups) as pleasant

or unpleasant can be referred to a definable sequence of experiences. Our reactions to ideas, institutions, modes of action, and to any other conceptually presented material can be understood in the same way. And finally, stress should be placed on the fact that *it is not at all necessary for the individual to be conscious of the cues for learning, the learning process itself, or the response or percept learned.*

Generalization and Differentiation

Before we leave this topic, certain other theoretical points need emphasis. One relates to the extent of transfer and generalization from learning. So far, we have stressed learning in relation to specific stimulus patterns. One is impressed, in observing personality, with the extent to which stimuli can be interchanged. A boy who is markedly devoted to his mother is likely to fall in love (if he is able to do so) with women who in some respects resemble his mother. Hostility to one's father can be transformed into hostility toward authoritarian governments. This fact of *transfer* is one of the basic concepts in our field.

The extent to which a conditioned percept or response will transfer to new stimuli seems related to clear discrimination of difference. If the new stimulus is sharply distinguished from the old, no transfer occurs. With a great deal of similarity, maximum transfer is noted; with intermediate similarity, there is some but not complete transfer.

It will be useful to introduce here the concept of stimulus equivalence. Two stimuli may be said to be psychologically equivalent when they are perceived in the same way or when they give rise to the same response. Stimulus equivalence can spread over a surprising territory. Miller (1934) trained children to find candy under a yellow box mixed in with three red boxes. Later he tested them by presenting one purple and three green boxes; the children invariably looked first under the purple box. The equivalence here is in terms of a *relationship of difference.* Among adults we can plausibly expect this to extend to economic and political concepts, family and vocational situations, and other abstract comparisons.

Differentiation of Stimuli.—The effectiveness of transfer and generalization of stimuli depends in part upon the process of *differentiation* within the stimulus situation. The infant at birth shows little differential discrimination. He apparently reacts to a "situation as a whole." The essential elements in the total picture are not identified.

With maturation and experience, however, the child comes to discriminate between essential and irrelevant factors in the stimulating situation. At first, for example, he may respond with as much pleasure to an empty

bottle as to a full one. Later he learns to respond differentially to these two stimuli. After a few unpleasant experiences with adults, he may show a generalized unpleasant feeling about all adults; later he comes to differentiate acceptable from unacceptable persons.

The development of a suitable balance between generalization and differentiation is necessary to a normal personality. We are forced to act on the basis of prior experience with related conditions; thus one must generalize about dogs from those he has met, as about foods from those he has tasted. It is, however, maladaptive to generalize too extensively. The burned child must dread the fire, but he should not also dread fireplaces, people who make fires, and materials used in the fire. Just such excessive generalization of valences is a feature of many abnormal personalities. The shell-shocked soldier (Hollingworth, 1920) felt fear not only on the battlefield, but also at home when the wind blew leaves past him in a manner reminiscent of his combat experience. The normal personality is distinguished by a realistic generalization of valences to all stimuli possessing essential equivalence, but by differentiating these from aspects of the situation which are contiguous but incidental.

Reinforcement

Another question which needs consideration in connection with these experiments is that of reinforcement. Early attempts to apply experimental data to personality development were criticized on this ground: in the laboratory, a learned response tends to disappear when it is no longer reinforced (by food, shock, or whatever basic stimulus was utilized). Since we clearly do not go around giving adults candy or spanking them in order to reward and punish specific acts, how can we apply laboratory experiments to human behavior? Why is it that the child's conforming behavior does not disappear as soon as he is released from the training situation?

The answer seems most correctly to have been formulated by Mowrer (1939b). This author points out that, after pain has once been experienced, the associated stimuli will give rise to a feeling of unpleasantness. This, with the visceral responses which also become conditioned, constitutes a reaction of *anxiety*. Anxiety is sufficiently powerful to motivate energetic behavior; and the relief of anxiety is an effective reward.

Mowrer, therefore, holds that the lack of physical reinforcement in human learning situations, after a few repetitions, is no problem. When a stimulus has become associated with punishment (*e.g.*, the word "shame," as illustrated in Fig. 13), the recurrence of the stimulus will give rise to anxiety. The anxiety sets off restless behavior seeking to get rid

of the stimulus. When the stimulus is removed, the anxiety disappears, and this has reward value for the individual.

Conflict and Neurosis

The utility of conditioning experiments in throwing light upon the process of personality development is further emphasized by consideration of the experimental neurosis, a phenomenon first discovered by Pavlov. A typical experiment illustrating neurotic behavior involves learning to discriminate positive and negative stimuli (one is a sign of food, the other of no food). These stimuli thus become *excitatory* and *inhibitory* symbols. Differences between the two stimuli are then diminished until discrimination becomes difficult or impossible. (The animal cannot establish a consistent expectation with regard to the environment.) At this point the animal is likely to have a "nervous breakdown." In the following instance, the task is that of discriminating a circle (positive) from an ellipse (negative). The ellipse is then made more nearly circular in form.

"The differentiation proceeded—until an ellipse with a ratio of semi:axes 9:8 was reached. In this case, although a considerable degree of discrimination did develop, it was far from being complete. After three weeks of work upon this differentiation not only did the discrimination fail to improve, but it became considerably worse, and finally disappeared altogether. At the same time the whole behaviour of the animal underwent an abrupt change. The hitherto quiet dog began to squeal in its stand, kept wriggling about, tore off with its teeth the apparatus for mechanical stimulation of the skin, and bit through the tubes connecting the animal's room with the observer. . . . On being taken into the experimental room the dog now barked violently, which was contrary to its usual custom." [5]

Pavlov and his students found that dogs manifesting a different "temperament" outside the laboratory showed differing symptoms when subjected to this conflict situation. In relatively excitable dogs, the first responses to be obliterated are inhibitory in character, whereas in quiet dogs the excitatory processes suffer first. Thus it seems that the neurosis *exaggerates trends already present.* In both types of animal, however, it appears that the usual gross behavior disturbances take the form of restless agitation, refusal to eat in the laboratory, and excessive emotionality.[6]

[5] Pavlov (1927), p. 291. Reprinted by permission of Oxford University Press.

[6] Gantt (1942) describes a dog suffering from experimental neurosis as follows: "The animal exhibits all the symptoms to a former signal for food that an ordinary dog does for actual pain, *viz.*, whimpering, howling, retreating, rapid panting, tachycardia." Many human neuroses involve fear and pain reactions to stimuli normally considered pleasant; this is especially true of the sexual neuroses.

Experimental neuroses have been developed in pigs, sheep, and rats, the basic procedure being that of setting up a conflict between excitation and inhibition (positive and negative valences). In some animals the behavior produced seems virtually psychotic rather than neurotic. Maier's (1939) rats would run at great speed around the laboratory floor and fall on the side in apparent convulsions, then, after hopping, twitching, and finally relaxing into a flaccid state, would permit the experimenter to mold the body and limbs into any position without resistance and would hold this position for several minutes.

The belief that neurosis and psychosis in man were related to conflicts between positive and negative stimuli had been advanced prior to the observation of experimental neurosis in animals. These investigations have not, therefore, materially advanced our knowledge of human personality breakdowns. They do offer a simplified analogy with the human situation which is useful for teaching purposes. Neurosis in man, on the other hand, is likely to involve a very complicated pattern of positive and negative valences; *e.g.*, combat neuroses may result from the conflict between behavior tendencies, such as helping comrades, obeying orders, patriotism (positive), and fear of injury, fear of social disapproval, fear of failure (negative) in the battle situation. Similarly, it seems that many of the minor peculiarities which we shall lump under the general heading of emotional instability (Chap. VIII) are related to conflicts in which the competing positive and negative valences are fairly equal in strength. (If either the positive or the negative stimulus clearly dominates the scene, the individual sees a clear path of action and is not likely to break down.) As in the case of the animals, then, when a person cannot decide what to do, *but must do something,* he is prone to develop emotional abnormality.

An Illustrative Case.—A case reported by Erickson and Kubie (1941) will serve admirably to illustrate most of the points so far developed. The symptoms are those of acute hysterical depression. The intermingling of verbal, visceral, and affective elements; the role of conflicts of valence; and the function of anxiety as a reinforcing agent are clearly shown.

The patient, a college girl, had fallen in love with a man slightly older than herself. This man had, 2 years earlier, married the girl's roommate. The patient had been somewhat in love with him at that time. After a short marriage, the young wife died, and about a year later the man began courting this girl. She soon found herself deeply in love with him.

"One evening . . . she returned early and alone. She was sobbing and her dress was stained with vomitus. To her roommate's anxious inquiries, the patient

answered only with fragmentary words about being sick, nauseated, filthy, nasty, and degraded. She said that love was hateful, disgusting, filthy, and terrible, and she declared that she was not fit to live, that she did not want to live, and that there was nothing worth while or decent in life. . . . Thereafter a telephone call or a letter from the man, or even the mention of his name, and finally even a casual remark by her associates about their own social contacts with men, would precipitate nausea, vomiting, and acute depression. . . ."

The patient was placed under hypnosis and instructed to think of herself as she had been at the age level of ten to thirteen years. "Tell me what you were taught about sex."

"My mother told me all about that. It's nasty. Girls mustn't let boys do anything to them. Not ever. Not nice. Nice girls never do. Only bad girls. *It would make mother sick.* Bad girls are disgusting. I wouldn't do it. You mustn't let them touch you. You will get nasty feelings . . . You mustn't touch yourself. Nasty . . . I'm going to do like mother says. She wouldn't love me if I didn't." [7]

It is easy in this instance to trace the role of words (filthy, nasty, sick), of visceral responses conditioned to these words and to the idea of being nauseated, and of unpleasant feelings. It is not difficult to fill in the part played by visceral sensations, particularly from the sex organs, which had been so firmly associated with anxiety by the mother's repeated indoctrination and her threat to withdraw her love if the girl failed to conform. Opposed to these negative valences, of course, we have the potent positive valence of sex. The girl found herself in an intolerable conflict situation. The nausea set off by the memory of her mother's teachings provided an escape, a device by which she could run away from the problem. This, in turn, reinforced the verbal and affective elements in the negative pattern (*cf.* Fig. 14).[8]

Complexes

A word is likely to occur in many widely diverging situations. Further, even if the word does not actually occur in the situation, the child (or an adult) may talk to himself later and supply the word. Or someone else may furnish it. At any rate, the opportunity for the de-

[7] Erickson and Kubie (1941), pp. 585-586, 593-594. Reprinted by permission of the *Psychoanalytic Quarterly.*

[8] Therapy in this case was achieved by removing the negative valence and anxiety from erotic sensations. The mother was dead; the physician, therefore, induced the girl, identifying herself with her mother, to work out new sex education appropriate to her status as a mature woman. She thus became able to contemplate sexual relations without anxiety over the loss of her mother's love, and a successful marriage resulted.

velopment of generalized emotional responses centering about certain verbal stimuli is almost perfect.

For a strong emotional reaction centering around a single idea (generalized verbal stimulus) the term "complex" has become the accepted label. However, the use of the term has been predominantly directed to abnormal emotional conditionings. It is only within recent years that the complex has become a recognized component of the psychology of normal personality. Actually, there seems to be no distinction except that of degree between the individual who is mildly self-conscious and the one who has a pathological "inferiority complex," or between a boy who is somewhat timid with dogs and another who has a "phobia" for these animals. Every normal person will manifest strong emotional reactions when certain ideas are suggested; these are complexes in our sense of the term.

Complexes may be sorted roughly into two classes. There are many which seem to be universal in our social system, *i.e.*, the social heritage of American culture includes situations which establish these reactions in the majority of the population. For convenience, we shall speak of these as institutionalized complexes, to distinguish them from other complexes which are unique to the individual or to persons subject to certain special conditions. Thus, there may be certain complexes characteristic of handicapped children (the "inferiority complex," for example), but this would not be dependent upon the culture heritage so much as upon special events in the individual biography.

Institutionalized Complexes.—Since our verbal symbols are institutionalized, being a part of the whole social structure in which the child is reared, they lend themselves readily to the formation of affective responses which are generalized to cover a wide range of situations having a certain common feature.

A simple illustration is the word "home." About this word numberless affective conditionings, most of them pleasant, have centered. A large number of them have been deliberately or unintentionally implanted as the result of our traditions, the social approval which attaches to belief in the "sanctity of the home," etc. Punishment and unpleasantness are associated with disregard for home.

Perhaps a better illustration would be "communist." To this term most Americans react with dislike, because of multiple conditionings against it, although they are unable to define it. The emotional response is unthinking and mechanical, *i.e.*, stereotyped.

Race Prejudices.—Several studies have indicated that a great deal of what we are accustomed to describe as race prejudice is, after all, nothing more than adverse emotional conditioning to a certain word or mean-

ing. Persons who, immediately after the First World War, expressed themselves very enthusiastically in favor of exterminating the entire German nation, have been found talking to persons of German extraction in quite friendly vein. (These individuals often showed prejudice, however, upon being informed that the other was "German.") The process of learning which may be assumed to explain this phenomenon is diagrammed in Fig. 15. Various stories (verbal stimuli already attached to unpleasant feelings) have been told the individual, and the word "German" associated with them. This leads to the development of a stereotyped emotional response to anything bearing the "German" label. With one or two outstanding exceptions, the nationality groups for whom American children

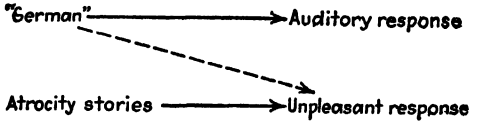


FIG. 15.—One phase of the formation of stereotypes.

show most prejudice are groups they have never contacted. For example, Hindus and Turks were rated very low in the scale of social preference by a large group of subjects. Practically none of these students had ever seen a Hindu or a Turk, but had acquired purely verbal emotional reactions against them [Bogardus (1925)].

Political and Economic Symbols.—The significance of verbal conditionings extends not only to contact with other things and people, but to contact with ideas. Each of us has been reared with certain pet fears, certain bugbears which frighten us without ever showing themselves. Let only an editorial in a powerful, nationwide chain of newspapers label a certain idea as "red," "radical," or "socialistic," and strong men shudder, lock the door, and reach for the family shotgun when someone proposes this idea.

As in the field of race prejudice, several studies have revealed the interesting fact that the prejudice against certain ideas is in inverse proportion to knowledge of the real significance of these ideas. People are prejudiced against theories and ideas which they do not understand. The reaction is to a label rather than to a principle.

Individual Emotional Conditioning.—Institutionalized complexes are a product of interaction between the individual and his cultural environment, *i.e.*, the traditions and customs of his society. To a large extent, therefore, they are group phenomena, can be studied in everyone, and can be measured.

On the other hand, each personality includes many emotional conditionings which are not characteristic of others in his group. He may have a fear of dogs or a liking for ice cream on his spinach. These likes and dislikes which are characteristic only of individuals may be labeled "individual complexes." They are products of accidents of one particular biography. They are essentially *qualitative* factors in the personality, not quantitative.

Individual emotional conditionings thus make it possible, in a certain sense, to identify the personality by purely descriptive study. This is the aspect emphasized by speaking of the unique personality of each individual. The case of hand biting, quoted from Bagby in a previous chapter, illustrates an individual emotional conditioning. Here certain implicit activities (thoughts) served as conditioned stimuli to set off either implicit or overt reactions (worries, or hand biting).

Symbolic Control of Behavior.—The great importance of symbols lies in the fact that we treat them *as if* they were real, and control our behavior in accordance with the affective reactions which have been attached to the symbols. This fact leaves us open to direction by others through propaganda. It also makes possible the self-direction of behavior through the symbolic representation of possible situations and choosing among these on the basis of potential pleasure or unpleasantness.

The Significance of Inhibitory Conditioning.—We are thus led to emphasize the importance of a special category of emotional conditionings, those which deal with the *inhibition* of behavior tendencies. The inhibition of one's own responses involves some unique psychological problems, because of the conflicting elements which are present.

Let us assume that the child sees some freshly made cookies. He anticipates pleasure, and helps himself to them. His mother discovers this act and punishes him. On a later occasion, reoccurrence of the cooky situation sets up conflicting emotional reactions and, hence, conflicting behavior tendencies. The solution of this conflict will be based on the relative strength of the two emotional states evoked by the situation.

This kind of inhibitory conditioning is not unique to man. Animals can be taught to restrain behavior impulses by punishment stronger than the anticipated pleasure. However, we find that the uniquely human aspect of inhibition enters when we take into consideration the role of symbols.

Inhibition by Symbols.—Assume that in the hypothetical cooky situation described above, the boy has not only been punished, but has also been informed that such activity is "stealing." The situation now has a label. Further, this label is able to collect and carry an emotional

"charge," much stronger than the ordinary punishment which the child might receive for helping himself to cookies. He has read, or heard, of people stealing and being sent to jail. He may have rather poorly defined, yet powerful, avoiding reactions to the word "stealing."

Now if the cooky situation recurs, he may not merely balance present pleasure against future discomfort, but he may also label the situation: "This is stealing." The attachment of the symbol brings with it the powerful emotional reaction which has become a part of the symbol. The result is obvious.

The uniquely human aspect of inhibitory conditioning, therefore, lies in the fact that human beings control their behavior "voluntarily" by talking to themselves, *i.e.*, by reinstating symbolic processes which stand for certain real or imaginary situations, and behaving in terms of the affective value of the symbol.

Significance of Social Taboos.—As Freud (1927) has so ably pointed out, a civilization is characterized by its list of things forbidden or taboo. In every social system we find certain actions labeled "Don't!" and these prohibitions are enforced by common consent of the majority of the population. Violations of such taboos, it is impressed upon the child very early in life, lead to profound emotional reactions. In most cases there is little explanation of the taboo; that is to say, there are no verbal reactions established which may serve as substitutes for the forbidden action. The child is simply faced with a large "DON'T!" which he must swallow, whether he likes it or not, with no explanation. This form of training also cuts off the possibility of much self-discussion, a possible way out of the vicious circle of self-stimulated emotion.

To those social taboos arousing the most violent emotional reaction we attach the label "immoral." Thus it is no accident that the greatest number of emotional difficulties, the widest variety of inhibitions, and the majority of repressions are associated with the category of moral action. Actions involving moral judgment are in their very nature emotion-provoking responses, and our whole system of moral training conspires to cause emotional problems in this field. Adults refuse to discuss these acts with children, but simply suppress the acts vigorously.

Interchangeability of Symbols.—The problems of symbol and taboo find an especially interesting application in the study of dreams. The psychoanalysts have long held that dreams were symbolic expressions of inner tensions and that extensive personality interpretation was possible by way of the study of dreams, through free association. With this technique they have demonstrated the interchangeability of symbols; *i.e.*, the substitution of socially permissible ways of representing ideas, to take

the place of tabooed expressions. These interchangeable symbols must, of course, be *stimulus equivalents*.

The Freudian method involves taking a patient's dream as reported (the *manifest content*) and, patiently following out free associations of the various items in the dream, arriving at an interpretation in terms of emotions and wishes (*latent content*).

While a large percentage of dream symbolism is sexual in nature, for the reason already stated, *viz.*, that sexual acts and thoughts are subject to a maximum of social disapproval, it would be laborious to reproduce the thoroughly convincing sequence which traces the innocent dream symbol to the latent sex impulse. As a substitute, we shall cite some rather surprising reversals of this process—the hypnotic production of dreams on specified topics. The following dream, reported by Farber and Fisher (1943), shows how an emotional state can be symbolized quite differently in the dream. It is important to note that the subject was chosen because she was uninformed about psychology and especially about dream theory.

"A hypnotized girl was told, 'Not long ago you discovered that a friend of yours had become pregnant; she came to you and told you how terrified she was to be caught in this way. You were shocked and did not know what to do.' She then dreamed, 'I was on an island and all around me waves were swelling; there were mountains up and down and around. There was a sudden downpour of rain. I felt that everything around me was so powerful that I was just insignificant. I did not know what to do.' Several days later the dream was recalled to her under hypnosis by a person other than the hypnotist. Although she felt that the dream was about pregnancy, she stated that the small island symbolized the social ostracism and isolation enforced by her predicament, while the *rain was the gossip and insinuation* which fell on her.[9] When her own hypnotist questioned her, she said that the rain was the downpour of semen."[10]

In these illustrations we see how social pressures cause symbolism to be employed in the expression of emotional tensions. Fear of social criticism will cause the individual to replace a disapproved word or image by one less bound to a negative valence. But these substitutions are not lawless and irrational; they follow the principle of equivalence of stimuli, and it is therefore possible to identify the basic emotional problem with careful study. It should be clear, however, that no "dream book" can interpret anyone's personality from his dreams. Each dream must be studied in the light of the total personality, its experiential background, and the immediate difficulties.

[9] Note in this case an additional symbolization; the new hypnotist was an unfamiliar figure, so the girl translated the dream into relatively acceptable terms.

[10] Reprinted by permission of the *Psychoanalytic Quarterly*. Italics are ours.

Implications.—Like the experiments on unconscious conditioning, the study of symbolism has broad implications for the psychology of personality. The individual's daily social life is regularly influenced by the symbolic value of certain situations for him, and also by the kinds of symbols he has associated with his job and his companions. His ambitions and aspirations are often determined by symbols; his solutions of basic conflicts of motives will be affected by symbolic formulations. Even the conscience (the Freudian Super-Ego) is plausibly interpreted as symbolic: the "voice of conscience" is a representation of the commands of the parents. Culturally fostered symbolism makes for similarities among personalities within a society; symbolism based upon personal experiences makes for unique, individual characteristics in personality.

Summary

From birth onward, the human personality develops by learning. The simplest pattern of modification, apparently, is that of the conditioned response, in which a joint presentation of two stimuli often causes one, formerly ineffectual, to elicit the response associated with the second stimulus. There are several forms of this experiment which educe facts of importance for us: they demonstrate the fact that we can learn responses not under conscious control and can even learn to respond to stimuli so weak that we are not consciously aware of their presence. Our interpretations of perceptual stimuli, as well as our acts, can be modified in this way.

Words may become conditioned emotional stimuli, and the feelings attached to one word may transfer to related words. This provides the basis for many phobias, complexes, racial prejudices, and stereotypes. The process of transfer is based on equivalence of stimuli, *i.e.*, symbolic substitution. This is the key to the understanding of many neurotic symptoms, dreams, and delusions.

The inhibition of a response is itself an active function, and can be conditioned to specific stimuli, including words. The basis for moral standards and conscience, the resistance to temptations toward the immediate grasping of positive valences, must be sought in this field of learning.

Suggestions for Reading

Guthrie's chapter in Hunt's *Personality and the Behavior Disorders* offers an interesting approach to the problems outlined here. Hilgard and Marquis cover the entire field of conditioned-response learning in their book, *Conditioning and Learning*. Shaffer's *Psychology of Adjustment* (Chaps. III and V) gives an interpretation comparable to that offered here, while Gordon Allport's *Personality: a Psychological Interpretation* (Chap. V) takes a decidedly different position.

CHAPTER VII

DEVELOPMENT OF PERSONALITY: COMPLEX FORMS OF LEARNING

Let us pause briefly to identify some of the threads which have been spun in preceding chapters. We started with a general approach which identified personality as a complex pattern of beliefs and expectations about the Self, the environment, and their interrelationships. Personalities, it was stated, differ with respect to such expectancies as these: that the world is full of pleasant situations, that people in general are warm and friendly, that I shall be well treated, that success is easily attained. Characteristic patterns of thought and action can be traced to such unconscious hypotheses about life, or to variations or inversions of these beliefs.

The topic of the present chapter is an extension of these concepts into still more complicated applications. Specifically, it is necessary to examine the development of expectancies related to self-activity. The individual may picture himself engaging in some action and may execute or inhibit the act according to the expectancy aroused. Why do some people fear to speak in public? Why are some boys recklessly self-confident, others timid and inhibited, in challenging situations? Why are some men aggressive in personal situations, others only in the medium of literature, science, or business? The answer lies in the kind of expectation each person has formed as to the consequences of his performing that kind of act.

We must also expand the treatment already outlined by considering the role of certain kinds of social situations. Human beings can serve as sources of positive and negative valences (reward and punishment). They can also function as *models* to be imitated, or they may provide *suggestions* as to the safe or approvable pattern of behavior. Even more complex relationships arise when the individual develops (as most of us do) the capacity to see situations as some other person sees them.

Actions as Stimuli

Our treatment, so far, has had the flavor of a purely passive developmental process, in which the personality is molded by a succession of pats

and kicks from the environment. It seems likely that, with regard to the very basic patterns laid down in infancy, this view is correct. The infant cannot fight back; and by the time he has matured, physically and intellectually, some ways of perceiving the world are so firmly implanted that they are all but ineradicable.

With the older child, however, we observe the more complex process in which the activity of the organism plays its role in the development of personality. This becomes true especially as the language function improves to the point at which the child can communicate with himself about the probable outcome of various acts.

Freud speaks of the infant as dominated by the pleasure principle (every act is governed by the immediate prospect of pleasure or pain) and suggests that, as the personality matures, dominance gradually is taken over by the reality principle (actions are governed by the long-range balance of probable pleasure and pain).[1] The newborn infant, of course, has not the memory span required to react to situations in which some time elapses between his response and the experience of reward or punishment. Further, he lacks the symbolic capacity to picture to himself possible future consequences in such a way that these could function as stimuli to approaching or avoiding behavior. It is probable that this reality behavior makes its appearance most often during the second year of life.

When Watson caused children to become afraid of a white rat, it was possible to say that the child formed an unconscious hypothesis that the appearance of the rat was a sign of unpleasantness, or to say that the perception of the rat now carried a negative valence. When Mowrer and Ullman taught rats not to take food while the buzzer was sounding, the situation was more complex. It was not the buzzer alone which was negative in valence, but the act of eating while the buzzer was sounding. We may say that the rats formed a hypothesis that food plus buzzer was negative, or that the act of eating plus the buzzer was a signal for punishment.

This process may be summarized by saying that *sign activity may itself acquire valence.* This is what should be expected on the basis of the experiments cited in the preceding chapter. Thus an act which has been followed by reward comes to be perceived as positive in itself; an act closely associated with punishment will be perceived as negative, and the animal or the human being will tend to avoid this activity.

[1] For a more detailed discussion of the pleasure principle and the reality principle, see Chap. XV.

Masserman (1946) describes an unusually clear experiment of this type, in which a cat learned to "like" to administer to itself stimuli which normally would carry high negative valence. The apparatus included an air blast of sufficient strength that cats exposed to it customarily reacted with panic and convulsive behavior. Masserman taught the cat to manipulate a pedal for food, then connected the air nozzle so that a weak air current accompanied pressure on the pedal. By gradually increasing the strength of the blast, he got cats to tolerate intensities which would be intolerable to the "normal" cat. Further, these masochistic cats would press the pedal and apparently enjoy the air blast, even when no food was forthcoming and when the animal was not hungry!

This analysis of "peculiar" behavior has obvious implications for the understanding of human personality, and especially for irrational manifestations. Thus boasting, quarreling, sarcastic speech, self-depreciation, submission to bullying, and many other maladaptive behavior patterns must be considered as learned acts which *at one time* led to positive valences or to escape from negative valences.

A considerable number of the outer manifestations of personality probably arise in this manner. An activity which has in the past functioned as a sign, or as an instrumental means, of achieving satisfaction now becomes positive in its own right. And this may extend, as Masserman indicated, even to enjoying some degree of discomfort.

Actions of Others.—Our own actions may come to be signals for further activity; and they may be signs of positive or negative valences which will be encountered if a given act is carried to completion. In the same way, the actions of others may have symbolic value in the control of our behavior. This situation includes the type of response known as *imitation,* although it is somewhat more general in application.

Imitation.—Obviously personalities do not develop in isolation, and each person does not have to work out for himself the solutions to all environmental problems in the manner just described. We rather tend to adopt the patterns of behavior manifest by people in our immediate environment, *i.e.,* we imitate the actions of others.

Psychologists long believed that imitation was a human *instinct;* that we possessed an inherent tendency to copy the actions of others like ourselves. Today it is generally considered that imitation is merely a special case of learning, in which the stimulus is an act of another person. There are two types of cases which may be mentioned: specific stimulus-response connections, and matched-dependent behavior.

Allport's Theory of Language.—In protest against the theory that children instinctively imitate the speech of adults, F. H. Allport (1924) made a careful analysis of the acquisition of speech. This was perhaps the

first clear statement of the concept that imitation may be merely a special case of the conditioned response.

Allport stressed three points in his discussion of speech development: (1) The child does not imitate until he has reached a certain maturational status, physical and mental. (2) Only sounds will be imitated which have been produced in the baby's vocal play. (3) Complex sounds, insofar as they are imitated, are reduced to simple sounds which have entered into the baby's vocal play.

According to this view, the child makes certain noises spontaneously, *i.e.*, in response to unknown inner stimuli. He also hears these sounds (Fig. 16*A*). As the auditory pattern becomes attached to the vocal movements necessary to produce it, it becomes possible for the child to imitate the adult (Fig. 16*B*); *i.e.*, the adult's speech is treated as an *equivalent stimulus* for the child's vocalization. In later stages the child associates visual stimuli with auditory and vocal processes.

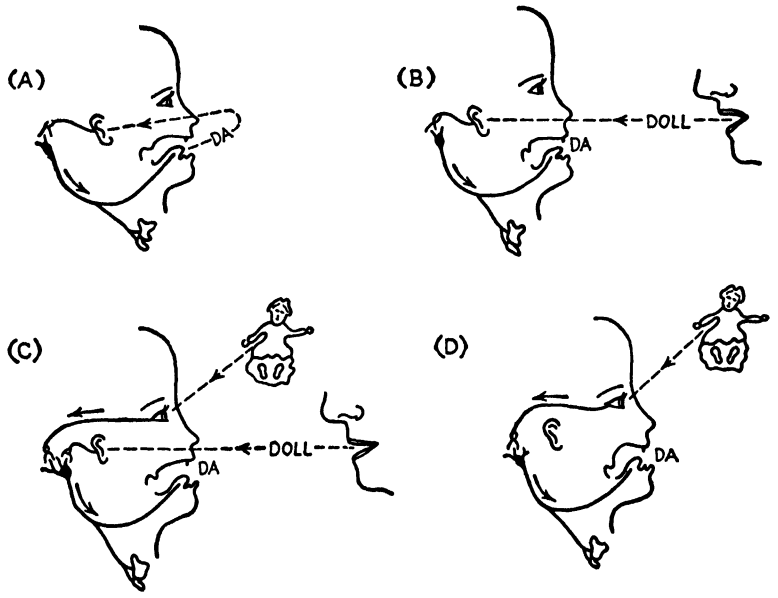


FIG. 16.—Acquisition of language responses. (*A*) Chance articulation of the syllable "da" causes the baby to hear himself saying it. Connection is formed between the sound and the muscular activity involved in producing the sound. (*B*) Adult says "doll," which by similarity to "da" operates to elicit the reaction attached to that sound in stage *A*. (*C*) Adult shows doll and calls it "doll." Child responds to auditory stimulus, thus tending to establish visual-vocal connections. (*D*) Child now responds to sight of doll by saying "da." Later developments will correct pronunciation and demonstrate that he can also respond verbally to image of doll in its absence (symbolic behavior). (*From Allport*, 1924.)

The important feature of this view is that the actions of adults enter as effective stimuli only after a certain amount of relevant basic learning which is nonimitative in character.[2] This conclusion is by no means limited to the acquisition of language. There is a story about Charles Chaplin to the effect that, one evening, he surprised some of his friends by bursting into an operatic aria. "Why, Charley," one exclaimed, "I didn't know you sang!" "I'm not singing," was the reply, "I'm just imitating Caruso!" Few of us are willing to believe that any skill as an imitator would enable Chaplin to sing without prior practice in this art. In the same way, no amount of imitation of aggressive personalities will develop the quality of aggressiveness, except insofar as one imitates by practice in social situations, and in this case, we need not speak of imitation, but of direct learning by practice.

Matched-dependent Behavior.—In addition to the simple type of imitation described above, in which the element of chance plays a rather large part, we must call attention to a somewhat more complex instance. Miller and Dollard (1941) have labeled this "matched-dependent behavior." It occurs when two individuals have the same needs, but one has acquired an effective solution and the other has learned to *match* the acts of the leader. This is not identical with deliberate copying. It is rather in the class of unconscious imitation. The dependent child has learned that, if he runs when the leader runs, he is likely to get something nice; if he is quiet when the leader is quiet, he is praised. In other words, he learns to match his responses to those of an adult or an older child.

Miller and Dollard proved, by animal experimentation, that this matched-dependent tendency would generalize; *i.e.*, if a rat learned that he got a reward by imitating a leader in one situation, he would imitate in a totally new situation. This is of the greatest importance in understanding the phenomena of social conformity. Children who have clearly learned the lesson of imitating their parents or siblings will probably conform in new situations by imitating the people about them. Children, on the other hand, who have never been rewarded for imitating, or who may even have been punished in this situation, will become nonconformists. Thus a small boy who has tried participating in games with older boys and has been roughly treated by them might avoid matched-dependent reactions because they were signs of punishment.

[2] The author's daughter furnishes an interesting incident confirming the Allport theory. At about the age of two we attempted to teach her the word "pencil." This is composed of sounds she had not used to any marked degree in play, and she did not imitate. However, to the visual stimulus pencil *and to the auditory stimulus "pencil"* she attached the vocal response "gaiga." This response persisted for at least six months, despite vigorous efforts to eliminate it. It was only after many months that she learned to reproduce the sound "pencil."

Inasmuch as parents are cast by society in the role of leaders whom the child must imitate, it is to be expected that most children learn to conform to the actions of adults. This serves as a functional basis for all kinds of reactions to political leaders, employers, and other parent substitutes. Further, the child will store up certain memory images of the ways in which his parents acted, and will reenact these when he finds himself in comparable situations (marriage, rearing his own children).

Imitation, in the sense used here, is by no means confined to imitation of adults and older children. Suppose that a new baby is born into the family. Little Johnny, who had learned to forego infantile pleasures, now finds the baby getting a lot of pleasurable attention from the parents. The baby cries, wets the bed, and is fussed over rather than punished. Johnny may very well follow the simple logic of matched-dependent behavior and start wetting the bed, sucking his thumb, and acting infantile. He expects to receive the same attention and affection that are given the baby and is much upset to find that he is treated quite differently. A considerable number of child-behavior problems originate in this manner.

Symbolic Acts as Stimuli

The psychologist may be interested in an action as such, or he may be interested in an action as a symbol of something else. This is particularly true of verbal responses, in which the symbolic function is clear. Following out this distinction, we shall consider the type of personality-molding process which is exercised through the application of symbols, or *suggestion*, as opposed to imitation.

Suggestion.—Like imitation, suggestion has often been considered to be based on instinctive tendencies. Today, however, we are inclined to treat suggestion entirely as a matter of learning. The child first learns certain acts through trial and error—walking, running, eating, and so on. Later he acquires verbal symbols of these activities. Conformity to the verbal stimuli presented by parents leads to praise, food, and other rewards; while failure to do so may result in punishment or self-injury. Thus the child learns to *match* his behavior to the *verbally presented expectations* of adults and other children.

At this early stage, suggestion and command seem very much alike; in fact, in many households it is difficult to determine clearly when the parent is making a suggestion, when giving a command. Even in later life the distinction is often subtle. Advertisers imply that sexual and other rewards will follow the use of their toothpaste and that failure so to act will lead to misery and despair. Operationally we can differentiate suggestion from command in terms of the certainty and immediacy of

reward or punishment, and the direct role of the suggester in this regard. "Study your arithmetic or I'll spank you" might be a typical command. "Study your arithmetic and you'll earn a lot of money someday" is a suggestion.

Suggestion may also operate through channels other than verbal; for example, we may say that when a frightened soldier sees another paralyzed by injury, it is suggested to him that he might escape by being paralyzed. Actually, however, the suggestion in such cases is not operative until it passes through certain symbolic manipulations in the mind of the person receiving it. The soldier thinks, or talks to himself, about this occurrence. The process, of course, is unconscious and irrational.

Suggestibility.—As in the case of imitation, we find that our methods of child training tend to implant a receptive attitude toward suggestion or, in other words, tend to develop *suggestibility*. It has frequently been observed that in adults, and even in fairly young children, wide individual differences in suggestibility occur. One person may be fairly easy to influence; another may not perform the suggested act, *i.e.*, other images or ideas inhibit the images or ideas suggested.

On the basis of observations available at the present time, we believe that differences in suggestibility are largely a matter of learning; and it is definitely demonstrated that the suggestion relationship depends on past experience. The relation between suggester and recipient must reinstate to some extent the relation of child to adult. This is the principle of *prestige* in suggestion. The child acts on suggestions from adults, and the adult acts on suggestions from those who, in his opinion, are "bigger and wiser."

Suggestion supplies many of the characteristic reaction patterns of the personality. The parents, of course, contribute a large share of these, although suggestions from schoolteachers and others are also effective. The following quotation illustrates a characteristic habit developed by repeated paternal suggestion.

"I have always taken great delight in avoiding things conventional. For instance: when I graduated from school last year I didn't buy a ring, announcements, or invitations on the pretext that inviting anyone to your graduation is an invitation to send you something. . . . The other reason was that I take a secret pride in being different. My reason for doing something is not that everyone else is doing it but rather that no one is. I learned that very early at home. If I wanted to buy something that all the rest of the kids were buying and asked Dad to get the money, he would want to know why I wanted it. If I told him everyone else was buying it he'd be sure to refuse. His argument always was, 'Do you want

to be like everybody else?' And of course I didn't so I went without it. I really believe I'm better off too."

Negativism.—Under unfavorable circumstances, or when unpleasant emotions dominate the relationship between the suggester and the recipient, the behavior may be the opposite of that which is suggested. Commonly we say, "the way to get a mule to go north is to start him south." This seems to be true of many human beings. Any positive suggestion is to them a stimulus for negative behavior. In some psychopathological cases, notably schizophrenia, it is not uncommon to find that the nurse must say, "Now do *not* eat this food," in order to ensure that the patient will eat. Giving the suggestion in a positive form would result in a refusal to eat.

Negativism is significantly present in the behavior of almost all children. It is undoubtedly due to the fact that many of the commands and suggestions of the parents lead to consequences which, from the child's viewpoint, are unpleasant. In an attempt to avoid these consequences, the child may temporarily adopt a negativistic attitude. The duration of such behavior depends on the tactful handling of the situation. If the child gets a great deal of attention by so acting, he may continue for a long time in his negativism.

Negativism in adults is often a revival of this attitude from early childhood. It is a return to a suspicious state in which the attempts of others to impose requests or commands represent concealed threats to the child's happiness and continued comfort.

Sympathy.—Another complex social process which is similar in nature to imitation and suggestion is the reaction known as sympathy. Since it is now generally recognized that sympathy is shown only in situations in which we have had experience, *i.e.*, that the stimulus to sympathy cannot arouse emotional attitudes and responses which have not been previously practiced in relation to one's own experience, the parallel with the two processes already described is complete.

In all these cases, social control of behavior depends on prior individual control of behavior. We imitate others because we first imitate ourselves. We cheer when others cheer, partly because we are in the same emotional situation, but partly because the sounds of their cheers are conditioned stimuli setting off the responses attached to the sound of our own previous cheers. When we see the school football team driving for a touchdown, we push in the direction of the goal because we have in the past seen our own bodies engaged in such physical drives toward a desired object or position. We become angry when a demagogue cries that "our flag has

been insulted" because in previous situations we have become angry at personal insults. Thus, by direct observation of others and by the symbolic stimuli which they present, our behavior may be directed and controlled. That the influences of imitation, suggestion and sympathy upon personality development may be good, bad, or indifferent, is too obvious to need stating.

Introjection.—In many situations, scattered from early childhood to complete maturity, we find the individual behaving *as though* a certain thing were happening to him, despite the fact that objective observation indicates that it is not. When this happens, we say that he is *introjecting* himself into the situation, *i.e.*, that he is treating the objective aspect of reality as though it were subjective, within his own consciousness. In the terminology of Mead, he treats the "not-self" as though it were "self."

Introjection occurs in many forms. We may cite these examples: A boy dreams that he is his father, that he is doing those things which his father has been doing. Americans are outraged when their fellow citizens are bombed at Pearl Harbor. An ardent trade unionist breaks into rage or tears upon hearing of strikers' being shot. The alumnus of a great university swells with pride when "my school" wins a football game.

Introjection has a tremendous importance for the individual and his development, because so large a portion of his life is spent as a member of various groups. As a result of our early training, especially the developing processes of imitation, suggestion, and sympathy, we are able in the group to "become one with it," to become so infused with the group spirit that, psychologically, our self includes the group. Thus we say that introjection means extending the self to include the not-self. Socially, introjection means the development of group consciousness, a feeling of group unity.

Projection.—Just as the human being may, as a result of the processes of imitation, suggestion, and so on, which we have described, respond to others in such a way that he introjects—*i.e.*, confuses the subjective with the objective—so we may likewise find the reverse process taking place. Projection is the term applied to behavior in which the "self" is treated as "not-self," or in simpler language, when we respond to our own (subjective) ideas, feelings, and beliefs as though they were the (objective) ideas, feelings, and beliefs of others. Under normal conditions, introjection and projection correct each other. We learn to understand others through introjection, and we may objectify our perception of self through projection.

Sometimes, however, introjection is not corrected by the appropriate projectional process, and we have cases in which persons introject them-

selves into the personalities of others without realizing that the relationship of "self" to "other" still persists. Then we have the complete loss of individuality in the personality of the other.

The corresponding failure to integrate projection with an appropriate introjection illustrates well the nature of projection in a "pure" state. Projection when thus uncorrected leads to the treatment of mental states as though they were objective realities. Thus a person who believes that others are persecuting him is usually treating as *objective* a rationalization or excuse for failure which is *subjective*. This case from Sherman (1935) may clarify our point:

"One boy of seventeen, a senior in a high school, was sent for psychiatric study because of rather sudden difficulties with his school work. He had been a good student but lately his work became poor. Except for an unusual timidity he was not considered abnormal in any way.

"The examination revealed attitudes of inferiority and many vague fears. He also said that he felt uneasy, expecting that something terrible would happen to him. He dreaded the coming year because the communists might come into power. 'In that case I am lost.' Further questioning showed that he had but a vague notion of the nature of communism except for the ideas he obtained from newspaper accounts of 'communistic rioting' in Detroit and Chicago. He was afraid to go out of the house after dark and even in daylight at times. When he walked on the street alone he felt compelled to look back every few steps for fear that some communist might attempt to kill him. He was asked whether he knew the teachings of communism and he replied that communism stands for the breaking up of the nation and of the home. He stressed especially the fact that he had read in newspapers of the communistic teaching that all homes should be broken up and that all minors should enter state institutions.

"The history of this boy's early life gave some clues to the genesis of his phobias. He is an only child and is living with his mother and aunt. His father left his mother when he was two years old and he remembers nothing about him. According to his aunt, his mother lavished great affection upon him and he in turn became greatly dependent upon her. Yet he frequently inquired about his father and often promised his aunt that he would look for him and find him some day. At times he seemed to be in fear that his mother would leave him also. He told his aunt on several occasions that he might have been responsible for his father's leaving, wondering whether he would not still be with his mother if he had not been born. The sense of guilt about his responsibility for his father's desertion probably was transferred to a fear of communism. . . ." [3]

Here we have an illustration of a mental attitude (fear that his mother might be lost to him, and fear that he might have been responsible for her

[3] Sherman (1935), pp. 27-29. Reprinted by permission of Longmans, Green and Company, publishers.

loss of a husband) responded to as though it is an objective manifestation, namely, persecution by "communists." Actually, as we see, the learning situation is simple, once certain symbolic meanings have become established. The child fears that his home will be broken up, that he will be placed in an institution, that he may have been the cause of the present condition of the home. Now he reads a newspaper in which a violent denunciation of "communism" is coupled with the claim that "the communists" will break up the home and put children in institutions. How simple for the boy to replace "I" by "communists"!

This is an example of projection without a corrective introjection. If he had been able to "put himself in the shoes" of the communists, he would have realized that they had nothing against him personally—not to mention the fact that communism is an economic doctrine having nothing to do with the home. But because of the failure of introjection, because of his inability to sympathize with and read himself into the other personality, his projection led to a state approaching mental abnormality.

Identification.—Identification is the phenomenon which occurs when an individual imputes to himself, and acts out, the characteristics of another person. While introjection is chiefly involved, projection may also enter the picture. When a boy identifies with his father, there may be merely the tendency to respond sympathetically with his father and to imitate his father's acts. On the other hand, this stage may be preceded by a projection of the son's feelings onto the father: "My father feels thus and so, which is also the way I feel." Such a projection would facilitate the process of introjection. We can sympathize with and imitate more readily people who resemble us.

Identification with a political leader is greatly facilitated by projection. Abel's *Why Hitler Came into Power* gives numerous quotations from autobiographies of Nazis. They indicate clearly that many of these individuals projected their purposes onto Hitler and perceived him as doing for Germany what they wanted to do. Thus capitalists saw him as the preserver of their privileges, ex-communists saw him as speeding the victory of the proletariat, and nationalists saw him glorifying the Fatherland. By such projection, each in his own way thus made it easier to introject Hitler's personality, identify with him, and follow his leadership blindly.

Abnormal identifications constitute a familiar symptom of complete mental breakdown. Many individuals transfer their identifications from "father" to "Father" (note the importance of equivalent stimuli in these phenomena) and believe themselves to be incarnations of Deity. Others, more modest, assume the role of Napoleon, General Pershing, or Thomas

Edison. In all these cases it seems likely that a double confusion of self with reality—both projection and introjection—has occurred.

Modification of Stimuli

The individual may actively transform his environment by running away from or by attacking and destroying physically present objects. A vastly greater proportion of his adjustment activities, however, are found in the field of modification of perception. Lacking the power to modify the *physical environment,* he may strive to change his perceptual or behavioral environment.

Rationalization.—The most common illustration of this phenomenon is that of rationalizing, in which the individual redefines the situation to suit himself. Thus in the well-known "sour-grapes" situation, he says, "Well, they really weren't nice and I didn't want them as much as I pretended." The outstanding feature of rationalization is that the person changes his description of the situation to make it more favorable to himself. In many instances, he believes his own rationalizing and actually modifies his inner perceptions accordingly.

The tendency to rationalize is more or less forced upon the child early in life. Whenever he does something which is disapproved, adults pounce upon him and ask, "Why?" If he is truthful ("I hit Bobby because I was peevish"), he is likely to be punished. If, on the other hand, he gives an acceptable rationalization ("I hit him because he called me a nasty name"), he is excused.

Whenever adults fail to conform to social expectations, they feel obliged to offer rationalizations. College students rarely admit that they were unprepared for an examination. "The questions were unfair." "There was too much noise in the room." A businessman who takes dubious advantage of a friend in a commercial deal falls back on the old Roman adage, *caveat emptor.* The politician says, "If I don't take this graft, somebody else will."

Just as our own actions may function as stimuli, so our description of our actions may be modified in this manner. The person who is excessively cautious with money considers himself "thrifty," while others may call him "stingy." The snob characterizes himself as "discriminating about friendships." The Southerner who endorses "Jim Crow" legislation may even distort the situation to the point of arguing that he is really doing the Negroes a favor by keeping them impoverished and subordinate. Rationalization, then, is a process of redefining the external situation or the acts of the individual, to bring about greater conformity with inner expectations and to avoid a feeling of unpleasantness.

Repression.—If we don't like a certain situation, we may gloss it over with rationalizations until it looks fairly presentable. But some instances are too unpleasant to be redefined within the framework we have acquired as children. In such cases it may appear that the only solution is to forget the whole thing. *Repression* is the term utilized by the psychoanalysts to identify instances in which painful memories and wishes have been ejected from consciousness.

Repression is particularly likely to affect stimuli which might lead us to commit socially disapproved acts. The denial of sexual motivation is the most obvious case in point. Fear of social criticism leads us to blank out this particular desire; we pretend that it does not exist within us. A different example might be that of the German professional man, eager to profit by having his Jewish competitors banned from practice. He would deny his economic motivation and probably take recourse in some bit of Nazi propaganda as a rationalization. We assume here that he was actually unconscious of his economic motive; if he cynically denied any selfish intent while consciously aware of it, he was not *repressing*.

A novel analogy, which may help to clarify the process by which stimuli threatening punishment are shoved out of consciousness, was proposed by Morgan (1924).

"Suppose, as I crossed a busy thoroughfare, I was almost run down by an automobile. I should naturally be frightened. In time I should partially recover; but suppose that the next time I attempted to cross I was again terribly frightened by a narrow escape from injury. If this were repeated several times I should very likely develop a great fear of automobiles or of crossing the street. Suppose that, as a result of these experiences, I was standing on the sidewalk trembling with fear and that someone asked me why I was frightened. I would tell him I was afraid of crossing the street and would probably tell him why I was afraid. This is a perfectly natural fear reaction and if I ever wanted to overcome my fear I should know just exactly what I had to fight—a fear of being run down by automobiles—and why I had the fear. On the other hand, suppose I had been taught that automobiles were vile; that people did not mention them in polite society; that attempting to cross a street when an auto was in sight was even more vile; and that to be run down by an auto or even to be threatened by one was the height of vulgarity. In such a condition I should not dare tell anyone why I was frightened. . . . So I should attach the emotion to some other object —the nearest thing at hand. Often this thing is most absurd, and I am likely to answer that I am afraid of the curbstone, or of an adjacent tree."[4]

[4] Morgan (1924), pp. 81-82. Reprinted by permission of The Macmillan Company, publishers.

Actually, of course, if such a training sequence as he describes were carried through, the individual not only would not dare tell anyone else "I am afraid of automobiles," but the symbolic processes standing for "fear of automobiles" would be so completely inhibited that the subject could no longer verbalize, even to himself, the true state of affairs. Thus, under the compulsion of verbal justification that our elders place upon us, he would tell himself, "I really am afraid of the tree falling on me!"

The repression of the symbolic aspect of an emotional situation does not eliminate the emotion. Emotion consists of visceral changes, overt movements, and conscious feelings. Of these components, only the verbal activities which are affected by the repression are inhibited. The individual thus still has the unpleasant, excited (or depressed) feeling, the visceral changes, and some of the overt manifestations of the emotion. It is manifestly impossible for him to convince others that he does not feel any emotion.

Under these circumstances develop many of the peculiar reactions characteristic of abnormal individuals. And repression further complicates the processes of identification, projection, and so on, which have been described. It is obvious, for instance, that if one projects a mental state onto some other individual, and lacks the symbols which are necessary to give meaning to the emotion in terms of its true (*i.e.*, subjective) significance, a psychiatrist will have great difficulty in educating his patient to the true character of the projected material. This is commonly true when sexual processes are the basis of the emotion. The patient has repressed these symbols, and has such strong inhibitory conditionings that when these words are employed in discussing his case, he will refuse to accept them as applying to his personality. Thus we say that this individual refuses to "assimilate" certain facts, meaning that he is unwilling to admit that such undesirable verbal labels apply to him.

The kinds of thoughts, memories, and impulses which must be repressed will be dependent upon the social environment. The individual develops through social conditioning a *frame of reference* which defines for him different degrees of acceptability of ideas. Consider, for example, the thought of killing a snake, killing a Nazi, and killing your father. The first of these might generally be approved; the second is approvable under certain circumstances; the third would be intensely disapproved, and very probably would be repressed.

Experimental Studies of Repression.—Numerous experimental investigations confirm the existence of a process similar to that which we have called repression. When students write out descriptions of their experiences on one occasion and recall them later, the pleasant material will show higher recall levels

than the unpleasant, at least on the average. When they listen to a political speech containing some statements confirming their views and others contradicting their attitudes, they tend to forget the unacceptable items. When they are given alleged ratings of their own personalities, they forget those ratings which contradict their self-ratings.

These observations suggest that repression is merely one manifestation of a general process which might be called selective learning and forgetting. Levine and Murphy (1943) had their subjects memorize passages praising communism,

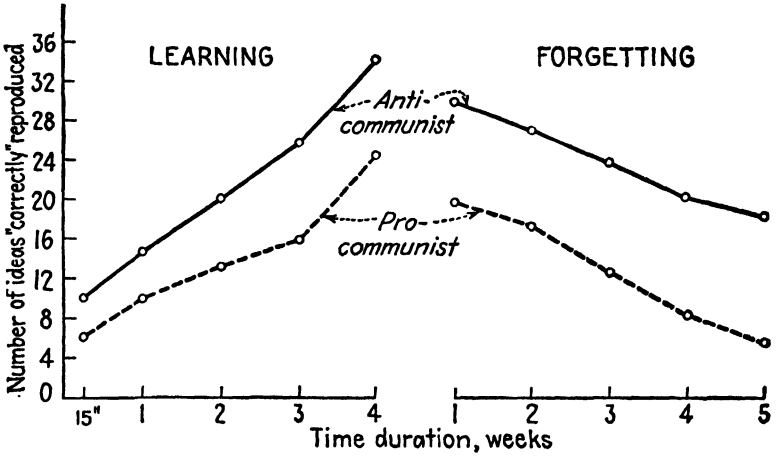


FIG. 17.—Learning and forgetting of controversial material. People learn more rapidly and forget more slowly material that agrees with their prejudices. The material here was an anticommunist paragraph; the subjects were two groups of college students, selected for extreme attitudes for or against communism. (*From Levine and Murphy,* 1943.)

and other passages severely critical of communism. Among the pro-communist subjects, anti-communist material was learned poorly and forgotten rapidly (see Fig. 17) as compared with a group of subjects who disliked communism.

There is no necessary conflict between the (Freudian) view that repression is a device for protecting the Self against painful thoughts, the view that unacceptable ideas are lost because they are poorly learned and not rehearsed, and the view that these items are forgotten because they are incompatible with the individual's frame of reference. Each of these theories focuses on an important aspect of the problem. Each helps to illustrate the manner in which one maintains his personality unchanged by forgetting or by refusing to learn material incompatible with his established traits.

MODIFICATION OF RESPONSES

By reinterpretation and association with new material, one modifies his perception of social situations, as also his evaluation of his own acts.

This, however, is only part of the story. The active transformation of behavior patterns is also characteristic of the normal personality.

The basic forms of modification of responses may be labeled *individuation* and *integration,* respectively. Let us consider these concepts very briefly in abstraction and then see how they apply to personality development.

Individuation.—Recent studies in the development of behavior in lower animals, and in the human fetus, suggest that the most elementary responses of the organism are large-scale *mass actions.* Stimulation of the newborn infant, for example, leads to diffuse squirming, movements of limbs, vocalization, and visceral changes. With time—maturation and learning—specific localized movements can be observed to separate out from this large pattern. The knee jerk and other isolated reflexes seem to become segregated from larger movement patterns, rather than to originate in their restricted form. To this process of narrowing down an act to an isolated movement the term "individuation" will be applied.

Individuation seems to be a characteristic feature of many learning processes. The schoolgirl, learning to type, hunches over the machine, tenses arms and legs, and shows many random movements. As she progresses, these unnecessary elements drop out until a smooth, coordinated habit is functioning. The essential finger and arm movements have been retained, the others eliminated.

Many symbolic acts seem to owe their origin to individuation from larger patterns. The following instance from Hendrick (1934) is a good example:

"Another patient was much distressed in life by an excessive meekness and lack of self-confidence. For a long time he had been laughed at for a sudden, tic-like movement of his flexed arm across the front of his body. Eventually he recalled that this was an abbreviation of a pose he had occasionally assumed before a mirror, imitating pictures of Napoleon with hand in waist-coat. These phantasies of being world-conqueror had long been forgotten." [5]

In this case the total pattern included a feeling of unpleasantness related to failure to come up to social expectancy. As a reaction he had identified himself with Napoleon, also a small man, and had imitated Napoleon's commonly pictured stance. Since he did not lose contact with reality, he realized that this was an infantile reaction and inhibited it. One small phase of the larger response, however, had persisted; it carried the positive valence associated with the fantasy, and was not recognizable as the Napoleonic pose.

[5] Hendrick (1934), p. 10. Reprinted by permission.

A characteristic of the mature personality, as compared with childish behavior, is the switch from all-or-none to individuated action. When the child becomes angry, he responds with his whole mechanism—mental, manual, visceral. The adult evaluates the stimulus and, in accordance with its felt importance, reacts only mentally, only viscerally, with restricted gestures of annoyance, or with full-blown rage. The system has now been fractionated and differential control is possible. In the case of adults who let their fears, enthusiasm, or suspicions "run away" with them, we correctly speak of a childish personality; these persons are reacting on an all-or-nothing basis.

Integration.—A converse process in response modification is that of integration. In this instance, initially separate responses are united into a smoothly functioning performance. A simple example might be that of learning to drive a car. The learner must study the functions of clutch, brake, accelerator, starter, gearshift lever, steering wheel, and horn. He will be well-advised to practice at least a short time on these separate acts before tackling the total performance of driving. At first he will have to pay close attention to each movement; but with continuing practice and correction of errors, a smoothly integrated performance develops. At this time pressure of the foot on the clutch becomes a signal for movement of the shift lever and release of the accelerator, without conscious attention. The various segregated systems have been merged into a single unified activity.

To some extent, integration of the more complex functions that we comprehend within the term "personality" is accomplished on the *stimulus* level. The child learns to perceive his older brother as a leader (for matched-dependent behavior), but also as a possible source of discomfort (if his persistent following frustrates plans of the brother). He achieves an integration of these percepts by defining the situations under which it is safe to imitate, and avoiding others (conditioned inhibition).

Integration, however, is also achieved on the response level by fusion of goal-seeking activities. The young child may learn that he is praised (and rewarded) if he washes his hands by himself. In another context he learns that his mother likes him to say "please." We then observe the little boy coming to show his mother freshly washed hands and saying, "Please, may I have a cooky?" Various specific responses coming under the general category of cleanliness and courtesy may thus be integrated to develop a characteristic known as "good manners." Adjustment to playmates, to marriage, and to vocational problems can be shown in many instances to involve this type of integration.

In addition to individuation and integration of responses, we must rec-

ognize modifications in direction and intensity of the response. In this category come the various mechanisms for dealing with frustration—compensation, sublimation, reaction formation, and regression.

Compensation.—One instance of modification of response is the type of behavior known as compensation. In this case, a person who is blocked from achieving some goal mobilizes additional energy and overcomes the blocking. (Remember that a characteristic response to frustration is aggression.) Thus a boy who yearns to make the football team may be turned down as "too weak." He may then spend hours in exercises, take vitamins, eat well, and build himself up to a fine physique. When, as in the case of Theodore Roosevelt, this compensatory process goes to an extreme (his lion-hunting and Rough Rider days), we may speak correctly of *overcompensation.*

Substitution.—Perhaps the obstacle to success in the original line is too great. Suppose that a boy is a cripple. In this case, he may attend all the sports contests, write stories about football, help football players with their studies, and so on, getting a certain diluted satisfaction from these *indirect approaches* to his original goal.

It may be, however, that the failure was too painful, and that the idea of football became very unpleasant to him. He might redefine the situation, rationalizing that all football players are stupid, and so resolve to become an intellectual success. He will then mobilize all the energy once available for football into the pursuit of learning. The intellectual activity has become a *substitute* for athletics.

Many forms of undesirable behavior are substitutive in character. The boy who is made to feel inferior in school may turn to stealing or to bullying smaller children for satisfaction. A woman who has failed to attain social success may gossip maliciously about those who have succeeded—"If I can't get up to their level, I'll try to pull them down to mine."

Sublimation.—A special class of substitutive reactions is that known as sublimation. The only distinctive feature of this category is that the new response is especially approved by our culture. For example, a woman who has not been able to have children of her own may go into welfare work and try to do good for many other children. A man who is disappointed in love may write beautiful romantic poetry as a substitute source of gratification.

The basic mechanism in substitution and sublimation is diagrammed in Fig. 18. Drawn in a certain direction by a positive valence, the individual perceives pathway *A* as the best way to his goal; but upon finding it blocked, he sees *B* as an alternative route to the same or a similar

goal. The case of compensation is somewhat different, in that the energy mobilized by aggression is used to break down the barrier in pathway *A*, thus achieving the goal in the original manner.

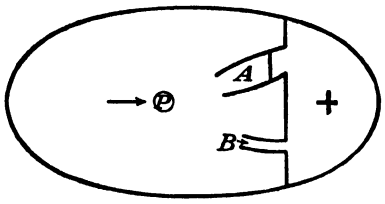


FIG. 18.—Substitution and sublimation. The person *P* first sees pathway *A* as the route to his goal, but, upon finding it blocked, perceives pathway *B* as an alternative course of action.

Compensations, substitutions, and sublimations are part of all normal personalities. They become indicative of abnormality only when (1) so much of the personality is dominated by the substitutive activity that normal development in other channels is impossible, (2) the substitutive act functions with such irrational intensity that any interference provokes an emotional explosion, or (3) the substitution brings the person into conflict with society. Each of these possibilities occurs in a fair proportion of cases.

Reaction Formation.—Sufficiently different, in form though not in essence, from substitution to merit a different name is the mechanism called reaction formation. The essential feature of this process is the fact that the individual develops a pattern of behavior exactly opposed to his original tendency. The alcoholic who becomes a temperance lecturer, for example, is protecting himself against temptation by putting himself in a favorable (nonalcoholic) environment, and also by verbally reinforcing his resolution not to drink. Similarly, an extremely aggressive boy may become so afraid of his own destructive impulses that he denies the possession of any aggressivity and presents the outward appearance of spineless humility. Reaction formation, of course, causes amateur observers of human nature much confusion, as it seems difficult to believe that a behavior pattern can be a device for concealing a completely opposed tendency. Nevertheless, the evidence for this interpretation is quite convincing.

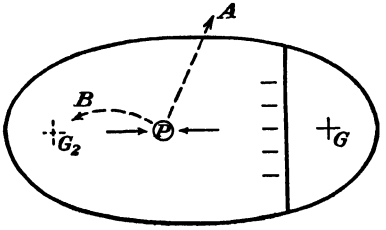


FIG. 19.—Regression and reaction formation. When the person *P* is attracted by a positive valence *G* but repelled by negative valences (danger in approaching the goal), he may try to run away from the situation (pathway *A*) into childishness and regression; or he may seek to escape from the attraction of the goal by picturing to himself an exactly opposite goal, G_2, as being more attractive and moving in that direction (reaction formation).

One difference which sometimes separates substitution from reaction formation is that the latter customarily occurs when the goal activity involves both positive and negative valences (*cf.* Fig. 19). Substitution may arise from this type of conflict, or it may depend merely upon a blockage of a pathway to the goal (Fig. 18).

Regression.—Another type of substitutive reaction, distinctively different from those just mentioned, is always to some extent abnormal. This is *regression,* or the reactivation of response patterns appropriate to a more childish level of maturity. A golfer who has made a particularly bad shot may momentarily regress to an infantile level, break his club, stamp his feet, shout, get red in the face, and so on (Fig. 19). If such behavior is habitual, we should label him a childish personality. It is more likely, of course, to show only in moments of stress. Lewin (1935) sometimes writes as if regression were an innately determined response to a frustrating situation. This assumption seems unnecessary. What we observe is that, when an act leads to a negative valence, it will be discarded and other responses attempted. Many of these, in the very nature of the case, will be resurrected from the individual's memory and tried as possible solutions to the problem. They may thus seem somewhat childish and immature.

The term regression is most commonly applied, however, not to this momentary testing of earlier habit patterns, but to a fairly substantial reactivation of infantile behavior. A girl who was about to enter upon a marriage most distasteful to her, for example, suddenly started acting like a twelve-year-old. She wore her hair in pigtails and tied it with ribbons, talked in a childish treble, skipped about, and showed interests appropriate to that early age. In more extreme instances, regression may lead to truly infantile actions, so that the patient must be fed, clothed, and cleaned like a baby. Some individuals meet all problems by "running home to mama," and other forms of childish, dependent reaction. In such cases, regression becomes an important feature of the personality.

Autistic Thinking.—The substitutive reaction may cause the individual to resort to daydreaming as a source of satisfaction, instead of devising practical plans of action. It is possible to consider the organism as functioning on different levels (*cf.* Fig. 20). First, we have the level of *objective reality,* in which acts must be physical movements. Then we may postulate a plane of *realistic thinking,* on which one may plan for action, but the plans are checked against real conditions and consequently are subject to almost as much frustration as on the basic level. Finally there is the plane of *autistic thinking,* in which thinking recog-

nizes no limitations of a realistic character, and one daydreams, without inhibition, of attaining all his desires.

We may, then, postulate a sequence of substitutions: (1) one may seek substitution on the plane of reality; (2) if that fails, one may resort to planful thinking, trying to devise detours around the obstacle; and (3) if no realistic plans seem conceivable, one may resort to pure dreaming.

Certain daydreams are so common that they seem to represent an inevitable working out of the normal frustrations incident to growing up.

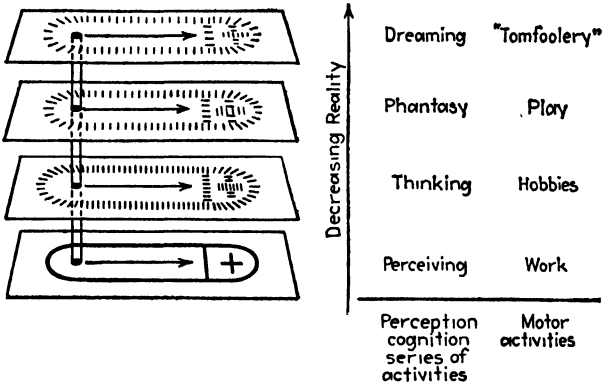


FIG. 20.—Levels of reality. When the individual is unable to attain a goal at the level of physical reality, he may resort to realistic thinking, or he may escape into a world of dreams and imagination. (*From Brown*, 1936.)

Thus every child is likely to feel at one time or another that his parents are too harsh, too restrictive. In this situation (following, perhaps, the suggestions in many children's tales) he develops the fantasy that he is a foster child; that his true parents are wealthy, famous, and powerful; and that one day they will rescue him from his cruel caretakers and restore him to his rightful place in the world. Questionnaire studies of adolescents indicate that this daydream is experienced by a good majority of American children at one time or another.

Autistic thinking becomes only too readily a habitual mode of adjustment to a conflict situation. It is harmful because it tends to block efforts to adjust on the level of reality.

Autistic Thinking Grades into Abnormality.—In its extreme forms, autistic thinking obviously grades over into the cases which we described as extreme cases of introjection and identification. That is to say, the term "introjection" describes the phenomenon in terms of the confusion between the autistic thoughts and reality, while here we are emphasizing the role of the autistic thoughts in leading up to that confusion. Obvi-

ously both processes are highly important. A patient who believes himself to be Napoleon will produce well-thought-out proofs that he is Napoleon, and "memories" of his childhood days; he will think as Napoleon might be expected to think, etc. Looking at this case objectively, we should describe it as a case of abnormal identification; but considering the subjective approach to the psychosis, we might well label it as a pathological extreme of autistic thinking.

Redirection of Personality

In Christopher Marlowe's *Dr. Faustus,* Mephistophilis states succinctly the relation of the damned soul to the environment. Faustus asks, "How comes it then that thou are out of hell?" and Mephistophilis replies, "Why this is hell, nor am I out of it."

> "Hell hath no limits, nor is circumscrib'd
> In one self place; for where we are is hell,
> And where hell is there must we ever be."

Just as the fallen angel found himself in hell wherever he went, so the neurotic carries his torturing environment with him, and the secure personality bears with him his own "envelope of reassuring beliefs."

We have been concerned, in these chapters, with analyzing and dissecting the process by which this is accomplished. Through conditioning, imitation, suggestion, and active learning, the individual develops not only a set of habits, but also a picture of his milieu. This inner conception of his outer world agrees in some respects with physical reality, but in other ways is dependent upon subjective belief. It is acquired by the impact of cultural expectancies and forced conformity to social roles, as well as by accidents of his individual biography.

The outcome of this decidedly haphazard process is not always fortunate. The child who lacks security in his earliest years, and who encounters an excess of unpleasant experiences, will develop a conception of his environment as threatening and cold. Along with this, his behavior will tend toward protective (but socially unfortunate) patterns. He will thus elicit unfriendly behavior from associates, and so be confirmed in his opinions.

What can psychologists do about this? One answer is found in the mental-hygiene movement, which attempts to prevent personality distortions from occurring. Activities in this field extend from educating parents, schoolteachers, and pediatricians in child psychology to providing playgrounds and wholesome surroundings in which handicapped children can develop.

A second phase of the psychological attack on this problem, also loosely

referred to as mental-hygiene work, is the redirection of maladjusted personalities. This field is much too large to be reviewed here. Recent books by Klein (1944) and Strecker and Appel (1944) give a great deal of interesting material on the specific kinds of problems dealt with, and on the approaches used in treatment.

We wish only to emphasize at this point that personality redirection, or mental therapy, makes use of these same learning processes. The basic pattern is that of *reconditioning,* or of so changing the patient's interpretation of a situation that he no longer behaves in an abnormal manner. In psychoanalysis, the individual talks over at great length his problems and complexes, until he eventually learns to view them in a new way—as infantile reactions, which are inappropriate in a mature personality. In most of the abbreviated types of psychotherapy, such as hypnoanalysis, the same purpose is sought. Repressed material is dug up and the patient is encouraged to look at it in a neutral atmosphere, without the emotional overtones of disgust and shame which may have been attached to it. This should—and often does—lead to acceptance of the memory and its reintegration in the total personality pattern.

These processes involve no mystical principle. The same elements are involved as have been described here—conditioning through repetition in a calm, untroubled setting; identification with a respected and trusted psychiatrist; suggestion through leading questions and direct interpretations; and as a prerequisite, of course, the active effort of the patient to recover a normal life.

We do not know why it is that in some instances learning is purely peripheral in character, while in other instances it penetrates to the deeper layers of the personality. Readers of Dale Carnegie may modify superficial characteristics in quest of friends and influence, without inner change. Effective psychotherapy involves "framework" learning; the basic frame of reference by which the individual evaluates himself and his environment must be reorganized.

The techniques of personal reorientation have often been used rather blindly to adjust the individual to society, rather than to consider whether it may not be true in some cases that society has an obligation to adjust to human needs. The problem of social organization versus personality is one which is exceedingly complex, and most psychologists have preferred to ignore it. This seems in itself a maladjustive reaction. We believe that a problem, however difficult, merits study and discussion, even if solutions are not immediately forthcoming. We shall, therefore, in Chap. XXII, attempt to integrate the various facts presented about personality with our knowledge of the social order, to see in what respects forward-looking psychology may point the way to social reform.

Summary

Acts of others and acts by the Self can become directing stimuli for the developing personality. These activities function as signs; they acquire positive and negative valences. Verbal responses (suggestion) also participate in this process. Some individuals develop a generalized pattern of following leaders and accepting suggestions; others may go to an extreme in rejecting such influences (negativism). The trend manifested will be a function of the valences associated with acceptance or rejection of suggestions.

The various psychoanalytic "mechanisms" can be treated as outcomes of these learning processes. In some instances the outstanding feature appears to be one of redefining the stimulus to make it fit into existing frames of reference; in others, the change can more aptly be described as one of modifying the response.

Individuation and integration are basic forms of response modification. As a result of individuation, specific responses become dissociated from their original contexts and may function as virtually autonomous portions of the personality: *e.g.*, phobias, tics, compulsions, and unconscious habits. The process of integration draws response patterns of separate origin into a smoothly functioning whole and is responsible for the tendency of the personality toward unity.

Other basic modifications of responses involve direction and intensity. Responses may be redirected from one goal object to another (sublimation) or reversed as to intensity (reaction formation). An activity may also be removed from the level of physical reality to the level of thinking. The adult personality is a product of all these patterns, originally set in motion by the environment, but promptly beginning to interact. The relative strengths of valences, pressure of social expectancies, and amount of practice given specific habits will, therefore, play important roles in the determination of the final integration.

Suggestions for Reading

Particularly valuable, although rather different from the position adopted here, is the treatment given these topics in Allport's *Personality: A Psychological Interpretation,* Chap. VI. Maslow and Mittelman's *Principles of Abnormal Psychology* gives a discussion primarily in terms of abnormal patients, but none the less illuminating for the normal personality. Morgan's *Psychology of the Unadjusted School Child* also offers an approach which seems somewhat novel and stimulating. On the basic learning mechanisms involved, Miller and Dollard's *Social Learning and Imitation* is the best single source. Eysenck, in his *Dimensions of Personality,* reports interesting data on suggestibility as a personality trait.

CHAPTER VIII

THE ORGANIZATION OF PERSONALITY: TRAITS

Personality Responses Are Organized.—In our analysis of specific forms of behavior so far, we have been forced to confine ourselves to principles and illustrations of responses to specific situations. In all the various material treated, from the conditioning of emotions to social and verbal stimuli, to the complex processes of compensation and introjection, we have considered only individual responses to individual situations. This approach is neither artificial nor excessively analytical. A great deal of what we have chosen to call the total personality is made up of just such situation-response patterns.

However, to assume that this made up the whole of personality would be an error. Many psychologists have not gone beyond the consideration of these mechanisms of adjustment to consider the fact of *personality organization.* Such neglect is comparable to the error of early students of cognition who studied ability at cancellation, reaction time, memory for nonsense syllables, etc., and on the basis of the observed lack of agreement among these measures, leaped to the conclusion that there is no higher order organization of intellectual functions.

This task of studying the organization of psychological processes is singularly difficult because the conclusions are likely to be a function of the method of attack. To illustrate briefly what we mean, let us refer back to the case study of hand biting cited in Chap. IV. In the case of this boy, an observation during the period of hand biting and an observation during the period of worrying, without further study, would have led to the conclusion that personality is unorganized, inconsistent; that it is simply a hodgegpodge of responses to situations. In that particular case, personality organization was demonstrated by *repeated* study.

An alternative line of attack on the problem of organization is not to make numerous studies of one individual, but to make a tabulation of responses for a large number of individuals. When we check one specific response against another, we may find many subjects who are inconsistent; but when we find responses falling into certain correlated groups, we are encouraged; and when we learn that apparent consistency increases

as we study successively larger areas of behavior, in which highly specific habits lose their identity, we feel confident that organization is a definite feature of personality.

The amount and kind of organization to be discovered within personality, however, will vary from one subject to another. In some individuals, integration has progressed to a high level; they have a "key principle" or philosophy of life, and all their acts are harmonized with that orientation. Occasionally we encounter a person with a "Jekyll and Hyde" structure. He has two mutually inconsistent patterns, but within each "self" there is integration. For the most part, however, we recognize the consistency of personality in terms of several fairly limited trends, which we shall call *traits*. The present chapter will be devoted to the evidence for and interpretation of organization at the trait level. Integration at the level of the Self will be the topic of the succeeding chapter.

Evidence for Traits

Traits as Stimuli.—One line of evidence for the existence of traits as organized systems of higher complexity than simple habits comes from spontaneous descriptions of personality. Naïve judges, when asked to describe the personality of a friend, do not find it necessary to enumerate his actions in a wide variety of situations. They may say that he is *emotionally unstable*. They do not feel the need to categorize the various emotions of anger, fear, enthusiasm, and affection which illustrate his instability. They may say that he is *seclusive*, without feeling any necessity to identify his avoidance of dances, parties, group work, and the like. The *trait*, as a recurring aspect of behavior, has effective stimulus value for the observer.

This is not to say that all trait judgments are correct. An acquaintance may generalize without sufficient evidence. Apparent consistencies occasionally prove to be inconsistent, just as some apparently inharmonious acts may be found to be congruent with some deeper aspect of the individual. Many so-called "traits" have a logical rather than a psychological status. Things which have the same name are not necessarily the same; *e.g.*, courage in facing a wild animal is not the same as courage in facing adverse public opinion.

Allport and Odbert (1936) report that the English language includes 17,953 terms, mostly adjectives, identifying characteristics with regard to which people are said to differ. These *trait names* do not necessarily correspond to traits. The existence of so large a number, however, suggests that the *belief* in the occurrence of traits is quite widespread.

Observation of Child Behavior.—Numerous observations of child behavior show a degree of uniformity sufficient to justify the assumption that traits have already become organized. Arrington (1932), for example, had observers record specific acts of a group of nursery school children on different days. She found that the children showed rather high consistency in the manifestation of given tendencies: *e.g.*, amount of talking is quite constant, as measured by a reliability coefficient of .94 (dropped to .78 if consecutive minutes are not included in the correlation). Thus some children are regularly talkative, others taciturn, others in between.

Clinical Evidence.—The clinical situation calls for intensive study of a single individual. It is thus striking to find that clinical psychologists and psychiatrists almost invariably couch their descriptions of patients in terms of traits, syndromes, or types.[1] Various statistical analyses of case data have confirmed the existence of predictable patterns at this level. While abnormal individuals show these uniformities most clearly (*cf.* the "grandiose" reactions of some patients, the "suspicious" trends of others), direct study of normal persons can also elicit convincing evidence for the reality of traits, *e.g.*, Maslow (1939).

Laboratory Observations.—It is possible to contrive situations in the laboratory which ought to elicit responses indicative of a trait. Moore and Gilliland (1921) report an early study along this line. They were interested in the alleged trait of aggressiveness. Specific situations presented were these: One of them required working mental arithmetic while gazing into the eyes of the experimenter, who also had the prestige of being an instructor. Length of time the student could hold his gaze fixed was recorded. Another situation involved doing mental arithmetic with a coiled, lifelike stuffed snake a few inches from the subject's hand. Amount of disturbance in speed and accuracy was recorded. Other similar tests were tried. The results indicated that students who, in one instance, were markedly or slightly "aggressive" usually scored similarly in others; *i.e.*, that there was a generalized trait, even though the term "aggressiveness" may not seem correctly to name it.

Evidence from Questionnaires.—We have cited, in Chap. III, considerable data on the reliability and validity of questionnaire tests of various aspects of personality. All this material may be entered as evidence in favor of the existence of traits. The split-half reliability of a

[1] The term "syndrome" is used to refer to a cluster of symptoms which habitually occur together, and thus is indicative of organization on a higher level than specific habits. "Type" is even more inclusive, postulating an organization of the entire personality.

questionnaire, for example, correlates the answers to two completely different sets of questions. If the correlation coefficient is high, it indicates that persons scoring high on one part also tend to score high on the other; those scoring low on one score low on both. This is clearly indicative of consistency within the personality as regards the characteristic covered.

To the extent that questionnaire scores agree well with experimental observations, self-ratings, ratings by acquaintances, and judgments by clinicians, we are also encouraged to accept the existence of traits.

Ratings.—The intercorrelations of ratings have also been cited as evidence for trait organization. On this point we feel that little can be said. Teachers' ratings of their pupils, for example, may be determined by a conception in the mind of the teacher rather than by consistency in the actions of the pupil.

This criticism is evaded to some extent by the type of ratings commonly employed by Burt (1939) and his colleagues. The ratings in this case are so specific as to require careful check against actual behavior; the form calls for reports of typical responses, rather than for a judgment as to the existence of a trait. Thus the rather high intercorrelations he reports are more convincing than those of many other investigators using other rating scales.

Negative Evidence.—We have so far confined ourselves to listing positive evidence in favor of the view that personalities are really organized into traits. Various psychologists have doubted this view, resorting instead to a belief in the complete specificity of our various habits. They refer to various lines of evidence to support their arguments against the reality of traits, *e.g.*, the failure of subjects to behave uniformly in situations where it seemed that they should.[2]

The difficulty with an adequate evaluation of these negative studies is in deciding just when a person can properly be *expected* to be consistent. Hartshorne and May, for example, doubted the existence of a trait of honesty because their children did not behave consistently on tests of honesty. Thus, lying and stealing correlated only .13, which is practically no consistency at all.

As Allport (1937) has stressed, it is unfair to criticize the trait theory from such evidence. Perhaps there is no generalized trait of honesty, but there may be other, more personal, traits—such as timidity or bravado—which harmonize the individual's seemingly contradictory behavior (*cf.* Fig. 21). Thus a child might lie to protect himself from criticism, but not steal because self-protection is not involved.

The positive evidence presented above is convincing proof that consistency in behavior is often found. The negative data cited can be ex-

[2] *E.g.*, Trow (1925); Dowd (1926); Reynolds (1928); Hartshorne and May (1928).

plained in terms of failure to look for consistency in the right place. We shall therefore accept the view that *the normal personality is organized into patterns of response tendencies, to be known as traits.*

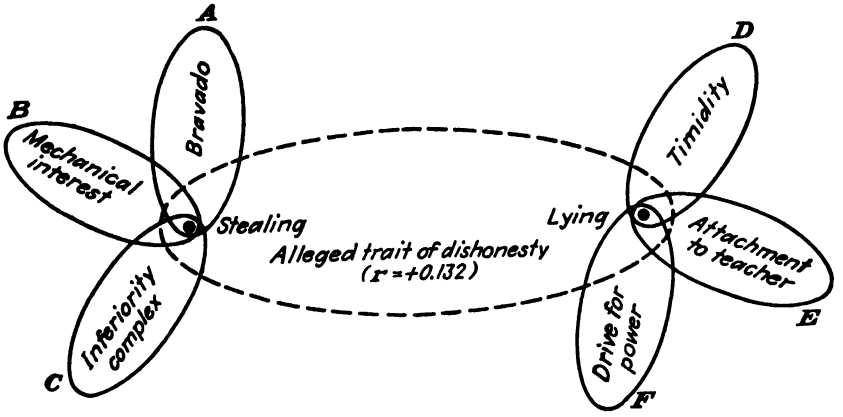


FIG. 21.—Critique of a statistical study of traits. While the study is correct in concluding that "honesty" is not a consistent trait (stealing and lying correlate only .132), there may be other more personal traits that were not investigated. In the situations presented to the child, lying may have been related to timidity, protecting status with teacher, etc., whereas stealing was unrelated to these traits. (*From Allport, Gordon W., Personality: a Psychological Interpretation,* 1937, *p.* 251. *Reprinted by permission of Henry Holt and Company, Inc., publishers.*)

NATURE OF TRAITS

To meet the criteria of evidence set forth above, a trait must be so general a manifestation that it can be demonstrated to function in a variety of separate situations; in other words, it cannot be a specific habit. Reversing this relationship, we may say that knowledge of a trait enables us to predict a person's reaction to a variety of concrete stimuli. The trait, then, is *a generalized tendency to evaluate situations in a predictable manner and to act accordingly.*

We believe that it is important to include both the implicit and the explicit aspects of behavior in this definition. Overt action is a summation of many influences. A person who is meek and submissive in ordinary situations may, under great stress, act in an aggressive and self-assertive manner. Trait consistency is shown if he judges the situation to be one from which he prefers to retreat, even though some pressing motivation impels him to act contrary to his preference. Generally speaking, the evaluation and the act will harmonize.

Traits Are Abstractions.—In Chap. I we stressed the point that personality is an abstraction from behavior. There is no such thing as

personality which can be extracted from the body by physical or chemical means, dissected, and analyzed. The word is merely a convenient collective term for certain psychological functions, just as water pressure is a convenient way of identifying certain effects of water, but not something separable from water. We now wish to emphasize the same idea in connection with traits. Too many psychologists write as if a trait were *an effective cause of behavior.* This is quite incorrect and misleading. Jane's trait of dominance does not cause her to order her girl friends to do certain things; but, given the observation that she is characterized by a trait of dominance, we can predict that she will boss others when she finds it possible. The trait, then, should be considered *descriptive,* but not *explanatory.* The causes of human behavior, insofar as we can identify them, are the motives which impel us to act and the environment which shapes our actions.

Traits May Lack Objective Reference.—Many of the early studies in this field seemed to disprove the existence of traits. In most such cases, if not all, the difficulty arose from the assumption that the trait had to be consistent in terms of the objective situation. For example, it was supposed that "speed of movement" would be a trait, a person tending to make finger, hand, arm, and other movements at the same relative tempo. What was ignored was that the consistency of responses depends on their *meaning to the individual.* A girl who writes rapidly may draw slowly. The one is due to her desire to obtain maximum expression of ideas per unit time, the other to her desire to achieve a high level of artistry per unit time. Responses which seem, on objective reference, to be inconsistent may be consistent in an inner frame of reference.

Traits as Higher Order Habits.—It is conceivable that we might extend the concept of habit to cover the kind of personality organization which we have designated as a trait. This is the interpretation favored by Guthrie (1944). He illustrates with the orderliness displayed by a typical sailor.

"The sailor on a sailing ship, living in cramped quarters and dependent in emergencies on having available and ready the gear of his ship, and living with other sailors, is gradually forced to acquire a large repertoire of acts that keep things ship-shape. He has been punished or admonished in the presence of disorder, unready gear, uncoiled ropes, unsecured hatches, until the sight of disorder motivates him strongly to react, and the reactions that remove the disorder remain as his characteristic behavior in its presence." [3]

[3] Guthrie, in Hunt (1944), p. 61. Reprinted by permission of The Ronald Press Company.

Whether disorder can be a stimulus for a habit is a matter about which we might debate. It is certainly far from the kind of specific stimulus-response sequence ordinarily designated by the term "habit"—such as coiling up rope whenever it is seen lying uncoiled. Disorder could set off habits of orderliness only through some process of *abstracting a relationship* in the situation and verbalizing about it to one's self. The essential element of the situation, then, would be subjective, not objective.

What Guthrie's theory really calls for is an objective "identical element" running through the various situations in which the trait is manifest. Suppose that a child were beaten by a red-haired bully, injured by a red automobile, frightened by a woman in a bright-red coat, and scolded severely for soiling his mother's red scarf. He might develop a generalized pattern of fearing and avoiding any situation involving red. The trouble with this view is that the uniformities we find in traits reside not in objective elements, but in subjective meanings.

Traits as Mental Sets.—Another interpretation of traits which deserves serious consideration is that the trait is an elaborate mental set—a readiness to respond to any of a variety of situations in a consistent way. An obvious illustration is that of the irritable man, whose anger responses are set to go off on almost no provocation at all. Cason (1930) has shown that there is a generalized tendency for some people to be annoyed easily, others only upon considerable provocation.

Another example would be that of the "professional" patriot, the so-called "100 per cent American." He may react with vigorous resentment to the word "socialism," to the sight of a volume of Marx's writings, to the CIO, to a neighborhood consumer cooperative, and to the suggestion that Americans subject their collective ego to international law. The objective similarity in these situations is nonexistent, but he is mentally set to oppose anything which in his eyes is un-American.

The interpretation of this behavior in terms of set is somewhat difficult, because the response is likely to vary considerably. In one case he may write a letter to the editor; in another, he speaks passionately to people; in a third, he throws the book into the ash can; in a fourth, he merely explodes viscerally. "Mental set" should imply readiness for a particular response.

Traits as Frames of Reference.—At various points in previous chapters we have stated the proposition that personality is an organized system of beliefs and expectancies about the environment and the individual's relation to it. In terms of such an approach, it seems plausible to define traits as *organized frames of reference;* otherwise, as established scales for evaluating environmental situations.

Consider again the instance of Guthrie's orderly sailor. Instead of saying that the sailor acquires a habit of picking up loose tools, or coiling rope, of mopping up slippery spots on the deck, and of fastening down large movable objects, it would seem simpler to infer the development of a frame of reference. Perhaps the sailor has been punished for leaving a tool in the wrong place. Later he is hurt when the ship rolls and a loose carton slides against his leg. Then he hears another man criticized for failing to coil up rope. These experiences form the basis for *evaluating situations*, on a scale from good to dangerous (anxiety arousing), according to the amount of disorder, size of the objects involved, cutting edges present, and so on. The intensity of his response and the amount of effort that he will expend to restore order will be related to his judgment of danger, not necessarily, of course, to objectively verifiable danger.

The superpatriot has evolved a frame of reference for certain situations, on a scale ranging from good (American) to dangerous (un-American). The standards that he develops through experience and reflection will determine the range of situations judged to be un-American and anxiety arousing. His responses will be determined partly by the objective situation, but mostly by his judgment of the degree of "un-Americanism" involved.

Finally, let us consider a more generalized trait, such as dominance. We suggest that the individual has certain experiences in which he has achieved happiness when leading, but has had other experiences in which discomfort resulted from submitting to leadership. He gradually evolves a scale for judging situations, ranging from good (his dominance unquestioned) to dangerous or bad (his submission to others required). His behavior then will be related not to the external situation but to his appraisal of it.

We need not necessarily consider the interpretation of traits as frames of reference to exclude either the habit-system or the mental-set interpretation. Each in its own way may help the student to grasp the functional character of traits. The "frame-of-reference" idea appears, however, more inclusive and less subject to exception than the other interpretations.

The Trait Continuum.—It is important to remember that differences between individuals with regard to a given trait are matters of degree rather than of kind. We do not have sharp classifications of people as talkative and taciturn, seclusive and sociable, emotional and unemotional. Rather we have a *continuous gradient* of differences from one extreme to the other (*cf.* Chap. I). As an illustration, consider the distribution of cases on the trait of rhathymia (Fig. 1, page 12). There is a continuous range of scores from 5 (very inhibited) to 79 (very carefree).

The largest number of individuals are in the center of the range; they have some tendencies toward each pattern of behavior. The important point, however, is that there is no score anywhere on the scale where we can cut off clearly "inhibited" cases without being arbitrary; similarly, there is no dividing point for the "carefree" group. *Trait organization is not an all-or-nothing affair;* it varies by degrees from one extreme to the other.

What Is a Trait Scale?—We may, then, define a trait scale as a continuum, or variable, along which (1) we may perceive others as differing (rating method); (2) the individual may perceive himself as differing from others (self-rating or questionnaire approach); or (3) the behavior of individuals may be demonstrated to vary (experimental and projective approaches).

In any case, trait judgments will depend to a marked extent on the trait concept developed by the observer. This is particularly true in rating and self-rating studies, in which an incorrect concept leads to meaningless results. It is true to a lesser extent in questionnaire and projective studies, in which objective demonstration through statistical analysis is sometimes possible (*cf.* Chap. III). Even in the laboratory, the experimenter's conception of what to look for often determines whether he will find unity or disunity in personality.

Theoretically we might have as many trait scales as there are paired polar adjectives describing personality differences. In practice these can be restricted to a manageable number, through some of the forms of analysis now to be described.

Common and Unique Traits.—Just as the stress in the two preceding chapters was on common mechanisms of personality development, so the emphasis here falls on generalized traits which are common to large groups of people, such as sociability, emotional stability, dominance, and so on. This does not mean that there are no unique traits. On the contrary, it is likely that every complex personality has one or more unique generalized patterns which characterize his behavior and which might not be discoverable in anyone else.

The study of both common and unique traits is a legitimate concern of psychologists. Certain methods, such as questionnaires and the Rorschach test, are best adapted to identifying certain common traits and estimating the degree to which they are characteristic of an individual. The uniqueness of personality here is, to some extent, a matter of getting enough trait measurements to furnish an adequate picture of a man. Certain other methods, such as free association and the Thematic Apperception Test, are better suited to the portrayal of qualitative character-

istics which are unique to the person, and cannot be put on a numerical scale because no standard of comparison exists.

In a certain sense, as G. W. Allport has argued, every trait is unique. Two individuals might conceivably indulge in dominative behavior to exactly the same extent, and might earn identical scores on a dominance scale; yet one of them might seek to dominate in business, the other in politics. This is a little like saying that Ted and Joe weigh 175 pounds each; but the identity of weight is meaningless, because Ted's weight is all muscle, while Joe has a liberal layer of fat. For certain purposes this insistence upon difference may be important, but the identity of

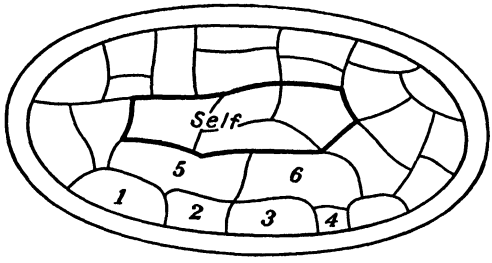


FIG. 22.—Surface and source traits.

common measurement, in weight or in psychological traits, is likewise valid and practical.

Common and unique traits must be oriented to the same psychological laws, or a psychology of personality becomes inconceivable. Both are related to learning, the interaction of the individual with his environment. Common traits are evolved because most of us are subject to cultural uniformities of family life, school, social contacts, economic and political institutions. Unique traits are the outcome of unusual combinations of physiology, personal biography, and the social setting.

Surface and Source Traits.—Certain traits are expressed directly in emotion, in personal contacts, in the manner of doing a job. These may be represented (Fig. 22) in a topological diagram as being near the surface of the personality structure, in direct contact with the environment; and it seems proper to follow Cattell (1945) in designating them as *surface traits*. Cheerfulness, liveliness, and quarrelsomeness are examples.

Source traits may be thought of as underlying structures, expressed not directly but through the medium of the surface traits. We might, for example, think of a general reactivity to social stimuli, lending unity to the apparent inconsistency of a man who is above average on both

friendly and quarrelsome behavior. This might also explain the observation by Murphy (1937) that the children in her group who were most often sympathetic were likewise most often aggressive in their relations to playmates. Source traits, of course, may be either common or unique, as may surface traits.

How many surface traits there are, and how many source traits, cannot be definitely stated. Allport and Odbert counted 17,953 trait names in English, but many of these were synonyms and others represented temporary rather than permanent trends. R. B. Cattell (1945), making an exhaustive study of ratings, found a total of 131 "phenomenal clusters," or common traits. These grouped themselves readily into 50 "nuclear clusters" of related traits, which in turn could be arranged in 20 "sectors of the personality sphere." This set of 20 sector names, with a few of the nuclear clusters subsumed to show the general relationships, is reproduced in Table 5.

TABLE 5.—CHART OF PRINCIPAL SURFACE-TRAIT "SECTORS," ACCORDING TO CATTELL [1]

1. Fineness of character	vs.	Moral defect, nonpersistence
a. Integrity, altruism	vs.	Dishonesty, undependability
b. Conscientious effort	vs.	Quitting, incoherence
2. Realism, emotional integration	vs.	Neuroticism, evasion, infantilism
a. Realism, reliability	vs.	Neuroticism, changeability
b. Practicalness, determination	vs.	Daydreaming, evasiveness
c. Neuroticism, self-deception, emotional intemperateness	vs.	Opposites of these
d. Infantile, demanding self-centeredness	vs.	Emotional maturity, frustration tolerance
3. Balance, frankness, optimism	vs.	Melancholy, agitation
a. Agitation, melancholy, obstinacy	vs.	Placidity, social interest
b. Balance, frankness, sportsmanship	vs.	Pessimism, secretiveness, immoderateness
4. Intelligence, disciplined mind, independence	vs.	Foolish, undependable unreflectiveness
a. Emotional maturity, clarity of mind	vs.	Infantilism, dependence
b. Gentlemanly, disciplined thoughtfulness	vs.	Extraverted, foolish lack of will
c. Creativity, self-determination, intelligence	vs.	Narrowness of interests, fogginess
d. Intelligence, penetration, general talent	vs.	Lack of general ability
5. Egotism, assertion, stubbornness	vs.	Modesty, self-effacement, adaptability
6. Boldness, independence, toughness	vs.	Timidity, inhibition, sensitivity
7. Sociability	vs.	Timidity, hostility, gloominess

[1] The grouping of these characteristics is based on actual correlations from rating studies. The sectors which are immediately adjacent to each other are, likewise, as a general rule, positively correlated; clusters within a sector show significant positive correlations with each other. The table is modified from one in Cattell (1945).

TABLE 5.—CHART OF PRINCIPAL SURFACE-TRAIT "SECTORS," ACCORDING TO CATTELL.—(*Continued*)

8.	General emotionality, high-strungness, instability	vs. Placidity, deliberateness, reserve
9.	Gratefulness, friendliness, idealism	vs. Sadism, slanderousness, suspiciousness
10.	Liveliness, instability, verbal expressiveness	vs. Reserve, quiescence, naturalness
11.	Imaginative intuition, curiosity, carelessness	vs. Thrift, inflexible habits, smugness
12.	Bohemian, disorderly	vs. Persevering, pedantic
13.	Aesthetic, thoughtfulness, constructiveness	vs. Absence of these
14.	Physical strength, endurance, courage	vs. Physical inactivity, avoidance of danger
15.	Amorousness, playfulness	vs. Propriety
16.	Alcoholism, rebelliousness, carelessness	vs. Piety, reverence, thrift
17.	Curiosity, wide interests	vs. Limited interests
18.	Hypochondriacal, taciturn retroversion	vs. Eloquence, interest in future
19.	Asceticism, eccentricity	vs. Comfort-loving conventionality
20.	Inflexibility, wandering	vs. Adaptableness, ease of settling down

It will be noted that it is often necessary to define both ends of the continuum before a sector or a cluster is clearly understood, and also that a given term may serve as an anchor point for more than one cluster. Placidity, for example, occurs in sector 3 and also in sector 8, but in the first case it is set opposite agitation melancholy; in the second, opposite high-strung instability. It is clear that placidity is not quite the same quality in the two contexts. The bipolar labeling system is, therefore, desirable (*cf.* Chap. I).

Cattell believes that he has pretty effectively covered the personality sphere with these 20 sectors; *i.e.*, he believes that any surface trait will be found to fit snugly into one or another sector. A source trait, however, might underlie several sectors.

THE MEASUREMENT OF TRAITS

Traits cannot be conceived as existing on an all-or-none basis. In everyday speech we are prone to deal in absolutes: John is aggressive, Bill submissive; Mary is cheerful, Susan is gloomy. Any intensive study of an individual, however, reveals a tendency rather than absolute uniformity. John may be aggressive in 90 per cent of observed situations, submissive in 10 per cent of them. Bill may be aggressive in 25 per cent and submissive in 75 per cent. Comparison of a random group of people (on common traits) will reveal the presence of a continuum from one polar extreme to the other. We are led, therefore, to take a *quantitative view of traits* and to look for methods of trait measurement.

Traits can be measured by words or by acts. The perceptions and wishes which we consider basic to personality become objects of knowl-

edge, other than self-knowledge, only when they are expressed. This manner of expression may be through purposeful activity; more often, through speech.

Indicators and the Measurement of Traits.—For a given expression, overt or verbal, which functions as the sign of an inner trait pattern, we shall use the term *indicator*. For the trait of sociability-seclusiveness, specific indicators might be declining an invitation to a party, crossing the street to avoid meeting some recent acquaintances, planning one's day so that social contacts will be improbable. One's own account of his actions may also be a valid indication. There is little reason to consider an overt act more valid than verbalization as an indicator; in fact, one might decline the invitation because of lack of suitable attire, cross the street because one of the persons approaching was obnoxious, and plan a routine in order to finish an important job of work. Overt acts thus are more likely to be confusing in reference, because they reflect composite influences (*cf.* Chap. IV). Verbal statements, for all their ease of distortion, are at times a more accurate index of inner state. Harmony of words and acts would be most convincing.

The quantitative view of traits presumes that the more indicators appropriate to a certain trait there are, the "stronger" that trait must be. The concept of strength here is not quite apt; a trait is not comparable to muscle. Perhaps a better statement would be that *the more indicators of a trait there are, the more consistently organized is the trait.* We can plausibly expect a man showing ten indicators of seclusiveness to be more consistently seclusive than a man with only five such indicators.

The concept of measurement here set forth, therefore, is that a standard list of indicators, or opportunities to reveal a trait tendency, be presented to each subject. The number of these opportunities accepted is a rough measure of the consistency of organization of the trait pattern.[4]

Relationship between Indicator and Trait.—Indicators are independent evidence—matters of direct observation. Traits are inferential constructs. The nature of the relationship between them will depend on the view taken of the nature of traits. If traits are considered higher order habits, then indicators are the zero-order habits which become integrated into systems (*cf.* Fig. 23). If trait is a complex mental set, the indicator is merely a specific "equivalent stimulus" for that response. If trait is a judgmental frame of reference, indicators are specific judgments based on that frame of reference.

[4] This formulation is adequate not only for the questionnaire scales, but also for the Rorschach, TAT, and other measurement devices which allow the subject to give spontaneous responses.

It is obvious that not all indicators are of equal value in this connection. Talking back to the boss requires more self-confidence than talking back to a salesclerk. This inequality in the significance of indicators led to the development of weighted items. Instead of counting all items as equal, some responses carried a much heavier weighting in the total score.

The study of indicators has also led to the *multiple-significance* interpretation of specific acts. A person who refuses to speak before a group may be mani-

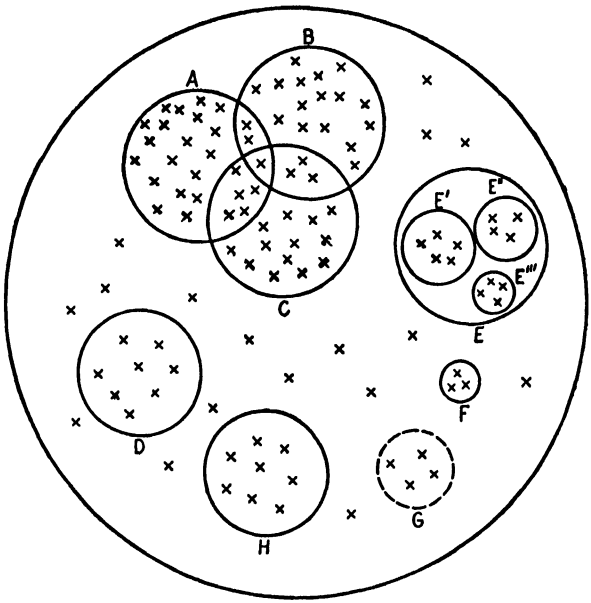


FIG. 23.—Relationship between indicators, traits, and attitudes. *x*, specific expectancy, verbalization, habit, or unit of behavior; *A*, *B*, *C*, indicators organized into consistent groupings as traits; *D*, *F*, *H*, more or less specific attitudes; *E*, relatively generalized attitude (*E'*, *E''*, *E'''* relatively independent of each other except as integrated into the generalized attitude); *G*, partially integrated attitude.

festing a trait of seclusiveness or one of self-depreciation. How shall we handle this? Obviously by weighting such an indicator positively for each trait, the loading being related to the probability of a dependable prediction for each trait. An example of this type of scoring has already been given in Table 3, p. 43.

Klopfer and Kelley (1942) cite the following Rorschach response (to Card IV): "It looks to me like a country boy in overalls, leaning back in a rocking chair, reading, with legs in larger perspective." This is scored W, M, Fc, H (response to whole blot, human movement, texture additional, human being perceived). These scores are summated with others in the record to contribute estimates of introversive-extratensive tendency, failure to use intelligence constructively, tactfulness in social relationships and other characteristics.

Let it be emphasized here that the trait does not *cause* the indicator. The use of trait names is likely to lead to confusion on this score. One psychologist, in a letter to the author, asks: "When the same answer to a given question scores positively (is an indicator) for each of two traits, is it the conception that *either* of these traits can give rise to the given answer, or that a combination of *both* traits is necessary to yield that answer?" Here we have an obvious logical fallacy. This person is interpreting the term "trait" as though the trait were a force compelling the occurrence of the indicator. Such a view is unjustified. The indicator is an independent phenomenon, and might be integrated with *either* trait, *both,* or *neither.* A summation of indicators will show whether a consistent trend exists; only on this basis do we diagnose the presence of a trait. If there are two consistent trends present, we infer that two traits are organized; and if they are not antagonistic in behavioral effects, some acts will be integrated into both (*cf.* the overlapping of traits as represented in Fig. 23).

One indicator is not a basis for diagnosing the presence or absence of a trait. An adequate sampling of behavior is necessary to make such a judgment.

Origin of Traits

We have defined a trait as a functional unity appearing in diverse environmental situations, a generalized pattern which makes possible the prediction of behavior in specific instances. So far, little has been said about the possible origins of these traits, although the theoretical foundation has been outlined in Chaps. V to VII. At this point, it will be helpful to clarify some interpretations of trait origins.

Heredity.—It is possible that certain traits are favored, or perhaps actually determined, by hereditary predispositions. The characteristic pattern of neurotic instability, for example, may build on an inherent quality of the nervous system. Persons who manifest this trait to a marked degree show various signs of autonomic imbalance. The quality "e" or emotional responsiveness, which is not necessarily related to neurotic instability, may be a hereditary function. The tendency to react emotionally to slight stimuli, and for these responses to persist and endure, may depend on autonomic or glandular conditions.

The persistent finding that temperamental characteristics are sometimes linked with body build (see Chap. XIII) suggests another kind of hereditary patterning. That the long, thin, asthenic physique has some kind of correlation with the inhibited, introverted personality seems a safe

prediction, even though the relationship is not dependable for any specific individual. The nature of the common factors, however, has not yet been determined.

Physiological Status.—Aside from hereditary factors involved in the determination of body function and personality manifestation, the general physiological status of the individual may be a causal element. A child with a high metabolic rate and an excess of energy, for example, might develop trait patterns which would persist after the inner physiological state had changed. We know little about the possible effects of diet, blood chemistry, and other similar factors, as regards personality. Any unusual inner state, if persistent over a long period of time, might shape a particular surface trait.

Continuing Environmental Conditions.—Long-continued isolation, poverty to a degree causing biological frustration, and similar environmental situations may mold personality traits. The child who is isolated, even for a few years in early life, may never recover from the handicap to his socialization. Prolonged exposure to adults who are quarrelsome, aggressive, or apathetic must be presumed to pattern congruent traits in the child.

The learning process in the molding of traits can today be documented by actual case records of children who in adulthood have developed extreme personality patterns. Friedlander (1945) reports such a study of a young man who was diagnosed as hebephrenic dementia praecox (symptoms being extreme infantilism, helplessness, silliness, and mental deterioration). Case history notes made when he was a child read as follows:

"*Preschool period:* At age 2-6 (2 yr. 6 mo.) the mother waited on the boy a great deal, neglected her housework because she watched him all day long, and was very attached to the child. The boy showed some resistive behavior, demanded constant attention of father and mother, and had no play-mates except the mother. The mother usually let him do whatever he wanted but occasionally and quite inconsistently gave him severe spankings. The parents refused to send the boy to nursery school because they found him too small, the trip too long, and because 'the mother would feel too lonely.'

"At 3-6 (3 yr. 6 mo.) the mother stated that she was never going to let the boy dress himself because 'he was her only baby' and she enjoyed doing it. She also found the neighborhood children too bad to play with. The boy had practically no toys; he was very shy with strangers.

"At 5-2 (5 yr. 2 mo.) the boy spoke only when prompted by the mother, made no move to help himself; the mother dressed him, fed him like an infant. . . .

The mother really wanted a girl and raised the boy with pretty curls and dresses." [5]

Such an environment obviously provided ample opportunity for the child to develop an expectancy that some one would take care of him, that it was best to act childishly, that he should remain passive and dependent. This tendency not only became generalized, but it paralyzed his adaptive abilities to the point that, when conflicts arose in adult life, his only resource was to regress to the infantile pattern.

Cumulative Effects.—Certain phenomena of learning are cumulative with regard to the organization of inner patterns. Regardless of the constancy of the environment or the persistence of physiological states, the organism tends toward consistency and congruence of personality traits. The specific trait is likely to become more entrenched with time, and various traits are drawn together into coherent clusters. Certain aspects of the learning process will help us to understand this fact.

Selectivity of Stimuli.—One psychological principle which has a great deal to do with the perpetuation and integration of traits is that of selectivity of stimuli. This simply means that a person does not respond to all situations; he selects out those which fit his present prejudices and predilections. Thus a young woman who feels socially rejected may go to a tea. If nine guests speak pleasantly to her and one snubs her, she is prone to remember, talk about, and become emotional over the one unpleasant item, ignoring the nine pleasant contacts. Edwards (1941a) presented a speech to a group of students, with pro- and anti-New-Deal statements exactly balanced. The items noticed and remembered in the speech, however, were those most congruent with the preexisting prejudice of the listener.

This means that people who are cheerful tend to become more so, while those who are leaning toward depressiveness are steadily rendered gloomier. It also means that this established interpretation of situations, based on early experience, spreads to related items of experience and thus increases the degree of congruence between related personality traits.

Selective Forgetting.—A second phase of the same process is that of selective forgetting. People tend to repress and forget not merely that which interferes with satisfaction of a need or that which is unpleasant, but also that which does not coincide with previous judgments. Charles Darwin once remarked that, if he encountered any bit of evidence which contradicted his theory of natural selection, he had to write it down im-

[5] Friedlander (1945), p. 334. Reprinted by permission of American Psychological Association, publishers.

mediately; otherwise, it was quickly forgotten. The paranoid personality forgets acts of kindness, but remembers with grim pertinacity all evidences of hostility.

Distortion and Invention.—Furthermore, the person may actually distort remembered occurrences to fit into his frame of reference, or he may go so far as to invent incidents which have no foundation in reality. Edwards' subjects, for example, actually took some of his statements and twisted them into complete opposites, so that they would conform to established patterns. Among abnormal personalities, delusions of grandeur or of persecution are likely to be supported by "memories" which are completely fictitious.

Trait Origins and the Normal Curve.—We have laid some emphasis upon the point that personality traits, like physical and intellectual traits, tend to follow a curve of normal distribution. This fact does not conflict with our emphasis upon environment or with the statements about increasing consistency which have just been made.

Let us assume that a given personality trait (security feeling) is a function of 10 independent factors, such as kind of inherent autonomic nervous system, glandular balance, type of family, and the first seven experiences with people. We shall also assume that each of these items can vary only as plus or minus, increasing or decreasing the tendency to security. In this case, we have a situation comparable to that of tossing 10 pennies and counting the number of heads and tails each time. If "heads" means a predominance of secure influence, we should find about 1 of 1,000 cases with *all* factors making for security; 10 cases with 9 favoring, 1 opposing; 45 cases with 8 favoring, 2 opposing; and so on. We shall thus obtain the "normal" distribution of security feeling in 1,000 people (see Fig. 24*a*).

Suppose, on the contrary, that we predetermine the results to some extent by making four pennies show heads continually, tossing only the remaining six (*e.g.*, where family factors all favor security). In that case we should get a distribution with no entries beyond 6T4H and, consequently, no extremely insecure personalities. We should, however, get a great many more secure individuals than in the pure chance situation, although the maximum degree of security is unchanged. The curve would still be normal in shape but narrowed in range and moved toward the upper end of the distribution (Fig. 24*b*).

We can also apply this mathematical analogy to the determination of a trait within an individual. Under a pure-chance situation he would be most likely to develop an average degree of any particular characteristic. He is not, however, operating under pure-chance conditions. Having

once become slanted in a certain direction, his mental processes operate to increase the bias; *i.e.*, many "negative" situations no longer affect him, while "positive" situations are noted, rehearsed, and emphasized. He will, therefore, tend toward the upper end of the distribution. Conversely, a child slanted toward insecurity in early life may show the same cumulative effect.

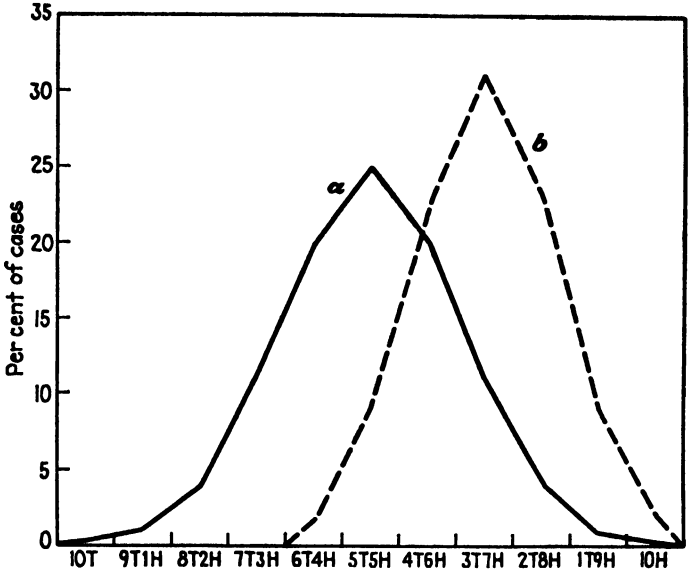


FIG. 24.—Normal distribution of traits as a probability function. *a*. Distribution that would be obtained if a trait were a product of 10 chance factors (as by "heads" or "tails" on 10 coins). *b*. Distribution if four coins are left heads up, and only six coins are tossed (four fixed factors, six chance factors).

We have suggested (Chap. I) adherence to the view of *multiple causation* in personality. It should now be apparent that the study of both individuals and groups lends support to such a view. The mechanisms of selectivity in learning, forgetting, and recalling, however, mean that, of the various causal factors impinging on the individual, some will be relatively more effective than others, *viz.*, those which are congruent with trends already established. It should also be noted that, when a group of people face an environment loaded against them, the personality trait distribution will be shifted. Certain undesirable family situations (*cf.* Chap. XVIII), for example, will "stack the cards" in the direction of insecurity, neuroticism, inferiority feelings, and other traits indicative of personality maladjustment.

Factor Analysis and Trait Origins.—Research aiming at determining with scientific precision just what personality characteristics flow from given physiological or environmental determinants is progressing slowly. It is hoped that factor analysis, a statistical technique now being applied to many psychological problems, will be of considerable value here.

Factor analysis is a device by which the interrelationships among various trait measurements can be reduced to a smaller number of "common factors." A hypothetical example is presented in Fig. 25. In this case it is suggested that

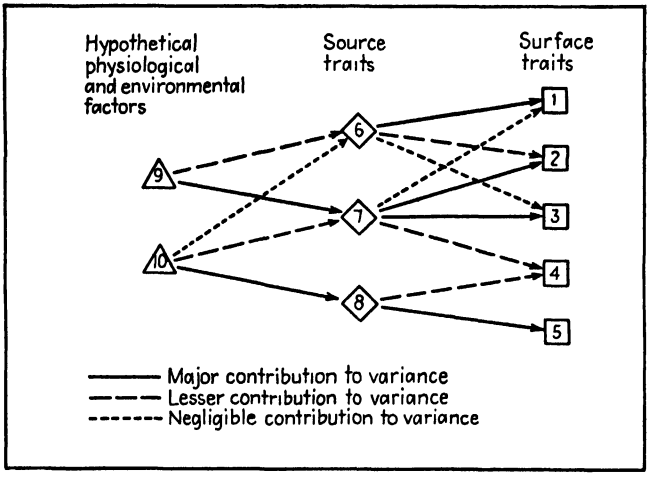


FIG. 25.—Possible relationships between surface traits, source traits, and determining factors. (*Suggested by Tucker*, 1940.)

two independent factors (9 and 10) interact to produce three "source traits" (6, 7 and 8); these, in turn, determine the appearance of five "surface traits" (1-5). The factoring process, of course, proceeds in reverse. Traits 1-5 are estimated by ratings, questionnaires, projective tests, or experiments. Physiological measures and any other variables (*e.g.*, environmental conditions) can be related to these trait measures. The intercorrelations of all these estimates are determined. By factoring these interrelationships, it is possible to get some insight into the nature of the concealed determinants which shaped the surface of the personality.

Light thrown by factor analysis upon various aspects of personality has been limited but encouraging. It seems probable that future studies by this method will be quite helpful toward understanding the process of trait development.

THE CONSISTENCY OF TRAITS

The position we have taken with regard to traits implies that they will continue in a relatively unchanged form over a period of time. We have, however, stressed the importance of learning, at least in connection with

the specific manifestations of traits. This suggests that traits will be modified with experience.

The evidence is that trait measurements of any individual are fairly consistent; from year to year they vary within a narrow range, but this range widens as the time span increases. One of the best studies in this area is that of Crook (1941), who retested college students with a neuroticism questionnaire after 6½ years. His results are summarized in Table 6.

TABLE 6.—DROP IN TRAIT-SCORE CONSISTENCY WITH TIME

Time Interval	Retest Correlation
5 mo.	.77
8 mo.	.71
1 yr. 8 mo.	.69
1 yr. 10 mo.	.67
2 yr. 3 mo.	.43
2 yr. 8 mo.	.60
3 yr. 3 mo.	.64
3 yr. 8 mo.	.57
4 yr. 6 mo.	.47
5 yr. 6 mo.	.34
6 yr. 6 mo.	.56

It appears from this table that there is a fairly steady decrease in the uniformity of the individual's scores as the time between tests increases. There is, nevertheless, a substantial degree of agreement between a person's status as a college freshman and his standing 6½ years later.[6]

Another interesting approach to this problem is to compare the present personality status with the person's memory of himself in earlier years. While this is admittedly subject to retrospective falsification, in that the individual may project into the past his perception of himself at present, the findings still merit consideration. In Table 7 are given the results of such a study. College students were asked to fill out a long questionnaire about childhood conditions. Interspersed with objective questions were various items about their childhood personality traits. For persons answering in a given manner, the average score on a questionnaire trait measure was computed.

The data show that traits are fairly consistent by this criterion. Per-

[6] Crook found that 82.8 per cent of the questions were answered in an identical manner after 6½ years. This is rather high consistency, considering all the possibilities for change in that time. Furthermore, 62.8 per cent of the changes in response canceled each other—*i.e.*, a person might drop one neurotic response only to pick up another.

TABLE 7.—CONSISTENCY OF PERSONALITY TRENDS FROM CHILDHOOD TO ADOLESCENCE

Question	Ans.	N	Emotionality	Self-esteem	Seclusiveness
Were you bullied by other children?...	Yes	33	70.1	42.1	59.1
	No	96	47.3	51.9	51.7
Were your feelings easily hurt?.....	Yes	81	60.7	43.2	61.1
	No	48	39.6	56.4	45.3
Were you afraid of animals?.....	Yes	25	68.6	42.1	52.7
	No	105	48.2	50.9	54.0
Were you shy as a child?.....	Yes	74	59.4	44.1	60.2
	No	55	43.4	55.6	46.6
Did you lose your temper often?.....	Yes	60	60.7	41.0	61.2
	No	69	46.9	56.1	49.2
Did you have nightmares?.....	Yes	33	62.7	44.9	54.9
	No	99	49.3	49.8	54.8
Feel that nobody loved you?.....	Yes	47	60.4	43.2	53.8
	No	83	48.2	51.7	55.4
Jealous of any one person?.....	Yes	42	58.4	43.1	54.3
	No	82	49.4	53.4	54.7
Did you boss others?.....	Yes	42	49.2	59.2	51.2
	No	86	53.8	44.3	56.7

sons who claim to have been emotional in childhood (had feelings hurt, feared animals, lost temper, had nightmares) score high on emotional instability as adolescents. Those who were shy now make high scores for seclusiveness. Those who took a "bossy" role are found to score high on self-esteem, but those who were bullied rate low on this trait.

Illustrative Descriptions.—Excerpts from autobiographies collected in one phase of the study described may serve to make more obvious the relations shown in the table. The following description of herself was written by a girl who scored above the 75th percentile on emotional sensitivity as measured by both the Bernreuter and Wisconsin scales:

"I, according to anecdotes still current in family circles, was decidedly unpleasant, as an infant—refractory, extremely spoiled, inclined to be whiny about such

matters as 'the bottle not being full!' and very much in need of chastisement, which my father and my uncle administered in liberal quantities."

This picture contrasts very completely with the biographies given by students scoring low on emotionality. The following is written by a girl who is low on this trait, high on self-confidence, and low on seclusiveness.

"Until my tenth year, my mother, my brother and I lived with my grandparents in and about New York. I had many playmates and none ever dared bully me. I ordered them around and made them like it, by making it appear as if they were doing the deciding and not I."

Trait Consistency in Children.—Studies of trait consistency during the first 10 years of life have been handicapped by lack of a sound theoretical approach. The attempt to adhere to strictly objective data [*cf.* Arrington (1932)] has not been very successful. Tabulating thumb sucking, nail biting, and other nervous mannerisms today, then checking for consistency some months or years later, leads to evidence for changing patterns. When the subjective significance of behavior is considered, the results may favor consistency. Shirley (1933), for example, comments that the fearful child at one year of age screams a great deal, while at two years screaming has been replaced by running away.

Perhaps the most convincing data on consistency at the earlier ages are those of McKinnon (1942). Sixteen children who had been carefully studied at three years of age were reviewed at eight years. A fourfold classification of types was employed: conformity, invasiveness, caution, and withdrawal, according to the child's dominant pattern. (None of them adhered exclusively to one type of behavior.) After 5 years, McKinnon found that 10 of the 16 children still fell in the same type class. Most of the changes were from invasive to conforming, a logical outcome of training. A single illustration of consistency is the following:

Randall (3) "pushes and pulls children, grabs their materials, makes shrill piercing sounds and has frequent physical conflicts." (Invasive)

Randall (8) "seeks attention from peers and enjoys showing off. His time is spent in idle chatter. He fights, boasts, teases others, and is inconsiderate and thoughtless. Children say he is silly and that he talks too much. He engages in no constructive or cooperative activities." (Invasive) [7]

Long-term Consistency.—Even more impressive than McKinnon's material are investigations tracing the same individuals from childhood to maturity. In these studies individuals admitted to mental hospitals were checked against child-guidance records, and actual notes on the

[7] McKinnon (1942), p. 58. Reprinted by permission.

child's behavior were compared with his adult psychotic symptoms. In most cases, congruence was observed between childhood traits and adult symptoms. Birren (1944) for example, reports on 38 children who were examined in a child-guidance clinic and later became psychotic. He finds that their symptoms correspond closely to the pattern of traits observed in childhood. "Personality characteristics of psychotic patients," he concludes, "are stable and evidence continuous development from childhood."

Trait Change and the Curve of Forgetting.—Crook (1941) plotted curves showing the rate of decline of measured consistency, based on re-

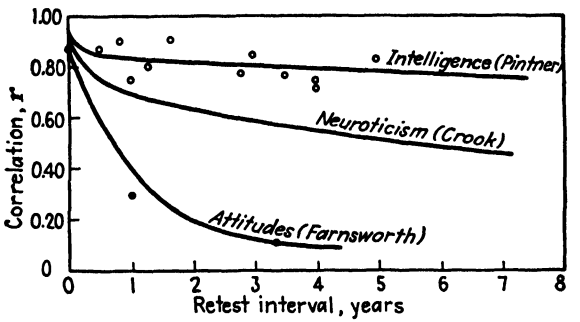


FIG. 26.—Decline in consistency of various psychological measures with time. Consistency of intelligence test scores decreases only slightly over a period of years. The decline for a personality trait (neuroticism) and for attitudes gives a curve resembling the typical forgetting curve. (*From Crook*, 1941.)

test correlations, for intelligence test scores, neuroticism, and attitude test data. The curves (Fig. 26) show high consistency for intelligence, medium for neuroticism, very little (after 1 year) for attitudes. These findings are in harmony with what we should expect. Intelligence is determined to a substantial degree by hereditary factors, hence should show little inconsistency; attitudes are virtually pure effects of environment, hence are easily modified. Emotional instability is probably dependent upon both heredity and environment.

It will be further noted that the shape of these curves resembles closely the shape of the orthodox forgetting curve. As we no longer interpret forgetting as a process of decay with the passage of time, but rather as an active process due to the learning of interfering responses, the shape of the curves confirms the view that learning is involved. Conflicting attitudes may be learned fairly readily; new emotional responses are acquired less easily, for the numerous reasons outlined in previous chapters.

Changes in Social Expectancy.—A confusing factor in the study of trait consistency results from the fact that social expectancy as to "proper" personality traits varies with age. As Tryon (1939) has so well demonstrated, the traits which twelve-year-old boys approve in each other are identical only in part with those accepted as standards at the age of fifteen. Even more was such a shift noted in girls from twelve to fifteen. Such variations probably account for some of the shifts in the adult years which have been summarized by Kuhlen (1945). We do not expect from the middle-aged man the amount of drive, social activity, impulsiveness, and emotionality that he displayed when younger. The conflicts and problems that he faces will also change. (There may, of course, be a "true" change within the individual; his glands slow down, his nervous system is less reactive, and his perspective on events is somewhat wider. He has also learned new social and emotional patterns.)

When we consider all the factors making for change, both within and outside the individual, we find that man shows a surprising tendency to maintain an established trait pattern. Consistency rather than change is the rule.

Sex Differences

While psychological studies agree that substantial sex differences in personality exist, they are at sharp variance with popular notions on at least two scores. (1) Differences in general mental ability are very small, if they exist at all. (2) The major sex differences are due not to biological constitution, but to environment and social expectancy.

The areas in which women have been found to be most different from men are in the fields of emotionality, values, and attitudes. Even in these respects the amount of overlapping is great; the more emotional men score considerably above the less emotional women (see Fig. 27). Men behave on the average in a more dominant fashion, but here again the overlapping is great.

The interpretation usually placed upon these findings is that in our culture boys are brought up in an atmosphere different from girls. Boys are expected to control their emotions, to bear pain and disappointment without crying, to cultivate a "poker face." Girls are permitted and even expected to make open displays of emotion. These social expectancies are early introjected and determine what the child expects of himself.

Further confirmation of the view that these sex differences are culturally determined comes from studies of primitive groups. Mead (1935) found, within a few miles of each other in New Guinea, tribes who completely reversed the personality pattern for the sexes. Among the Tchambuli, she found that women were the calm, planful, dominant sex—men

taking on petty, artistic, temperamental, and submissive patterns. Among the Arapesh, both men and women seemed "feminine" by Western standards, while the Mundugumor showed "masculine" traits predominant in both sexes.

Traits in individuals and in groups obey the same laws. The feature of a trait which seems most pervasive is its status as a form of expectancy. The person anticipates that he will attain pleasure and avoid discomfort

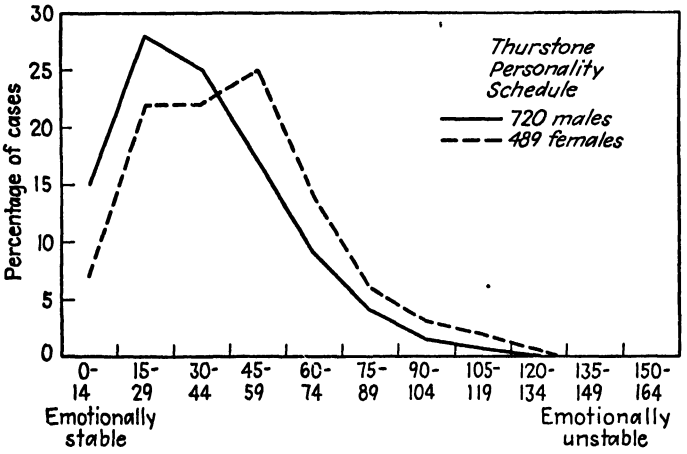


FIG. 27.—Sex differences in emotionality. Although the difference in average scores is highly significant statistically, there is still a substantial degree of overlap of the two distributions. (*Data from Stagner,* 1933b.)

if he conforms to a given pattern, and this pattern—particularly in the case of common traits—is likely to be set by social expectancies. The culturally imposed need to act aggressively, much more characteristic of males than of females, will condition other characteristics, such as inhibition of emotional expression and humanitarian values.

SUMMARY

Although specific habits are probably acquired in advance of generalized patterns of personality, the outlines of adult characteristics begin to be formed in infancy. The child's first few experiences with adults may estabish a generalized perception of other people as pleasant or unpleasant, thus affecting markedly his social adaptability.

Generalized expectancies as to proper behavior, and evaluation of types of situations as good (approachable) or bad (to be avoided) develop on the basis of social expectancies. Through introjection the child takes in socially approved patterns and guides himself by them. Through trial

and error other general tendencies are acquired. These patterns may be culturally widespread, giving rise to common traits, or they may be unique to one social situation, giving rise to individual or unique traits. They may be manifest in daily behavior (surface traits); they may alternatively or in addition function as source traits in the determination of other characteristics of the individual.

Several lines of evidence indicate that personality traits, once established, tend to persist. Indirect statistical data and direct clinical observation support the view that traits are modified chiefly by learning new ways of perceiving and reacting to situations.

Sex differences in emotional and evaluative traits are significant. The evidence favors the view that these differences are a function of cultural patterns imposing different expectations on boys and girls.

Suggestions for Reading

Allport's *Personality: A Psychological Interpretation* gives an excellent discussion of trait theory, oriented much more to unique traits, as compared with the emphasis here on common traits. Chapter XIII of Shaffer's *Psychology of Adjustment* presents an interpretation more along the lines developed here. Guthrie's chapter in Hunt, *Personality and the Behavior Disorders,* Vol. 1, gives a still different view. An entire volume has recently been published by R. B. Cattell, dealing in a very technical way with various aspects of trait measurement and relationships, under the title *Description and Measurement of Personality;* and see also Eysenck's *Dimensions of Personality.*

CHAPTER IX

THE ORGANIZATION OF PERSONALITY: THE SELF

In preceding chapters we have built up successively the elements which enter into a comprehensive description of the personality. Any given individual may be described in terms of his characteristic temperament or feeling reactions, particularly such generalized tendencies as optimism, pessimism, depression, or excitability. With greater precision he can be pictured in terms of specific emotional responses, complexes, and phobias; as also, in terms of his habitual patterns of rationalization, identification, compensation, and social roles. Finally, highly organized aspects of his personality can be set down in terms of the pattern of common and unique traits manifested.

All this, however, leaves one with a feeling of incompleteness, as if there were some essential but not obvious point missing. The nature of this missing element is suggested by some of the discussions of psychoanalytic mechanisms (Chap. VII) and again in connection with certain traits described in Chap. VIII. What is lacking is the *inner feeling of individuality,* the Self concept. What is it that *unifies* my temperament, my complexes, my political attitudes, my habits in social interaction? It is the awareness of *myself* as a continuing entity within these varying situations and action patterns.

The importance of the Self can be brought into focus if we consider briefly some of the facts already presented. It has been emphasized that personality is a matter of the individual's beliefs and expectancies about his environment; that his personality is reflected in "how he sees things." Who is the "he" referred to in this phrase? Clearly it must be the very center or nucleus of the personality.

Can the Self Be Known?—Philosophers often enjoy debating such questions as How can the Self know the Self? How can that which is examined be that which is examining?

We shall have to content ourselves with answering this question on a fairly naïve level (with the parenthetical thought that deeper answers may not be answers at all). The position adopted here is that introspectively we can distinguish readily between two types of experiences: those

which have ego-reference, and those which do not. Washington crossed the Delaware; *I* crossed the Connecticut. *My* home, *my* school, *my* writings are items in memory which have a unique quality, the quality of self-reference, which is not found in memories of things that I have read about or acquired in some impersonal fashion. Further, each of us is aware of the *continuity of experience;* I am the same person who did this 20 years ago, and there is no possibility in my mind that it could have been anyone else.[1]

Koffka (1935) has suggested that we can locate the Self spatially as the point which divides "in front of" from "in back of," as well as "left" from "right." Temporally it is at the point separating the future from the past. One can think of incidents which have already occurred and can imagine similar happenings yet to come; the felt self-reference is different in the two instances.

Not all of our experiences involve awareness of Self, and in some cases it seems difficult to link the memory to the Self. For example, a man may in a fit of anger speak obscenely to his wife. Later he says, "I don't know why I did it; I was not myself." The action, as recalled, does not seem compatible with his image of himself. Studies of amnesia indicate that a severe blow may cause a loss of self-reference without loss of consciousness; the person may act in a normal manner, yet be unable at a later time to recall his actions following the injury. Physiologically we might say that self-awareness is the most complex function of the cerebral cortex, and that emotion or physical shock may upset this function without blocking apparently normal operation of verbal and manual habits.

How Does the Self Become Known?—Ever since William James, it has been customary to speak of the infant's consciousness as a "big, blooming, buzzing confusion." The accuracy of this description may forever remain indeterminate. It seems pretty certain, none the less, that the infant's consciousness includes no awareness of himself as an individual. As far as we can judge from observation of young children, their mental states can be described as "It hurts!" rather than "I have a pain!"

Self-awareness develops gradually as the individual recognizes the distinction between Self and Not-Self, between his body and the remainder of the visible environment. It seems probable that awareness of his body furnishes a common core, about which self-reference becomes organized, although later one can distinguish Self from the physical body. The child sees portions of his physique as common factors in all his experiences; he

[1] This is, of course, limited to normal personalities. Confusion of identity is a feature of various mental abnormalities, and is perhaps the most striking symptom of personality breakdown to the average observer.

has muscular and organic sensations as part of all his activities; and his feelings of pleasure and pain, especially in the early years, are associated with definite bodily sensations.

Self-awareness is fostered by the fact that the child is given a name, and this name becomes a repetitive element in many memories. He is presented with toys and clothing, and adults treat such items in a distinctive way, trying to point out their special relationship to himself. At first, possessions have no meaning to him. Later he may pass through a stage in which injury to them may be treated like an injury to his body. He is identified with a family, and he similarly may behave as if the family were an extension of his body.

The consciousness of Self comes to full focus, however, as the individual experiences himself as a continuing unity in a *changing* environment. The Self is best understood by contrasting it with the Not-Self, the outer world. Constant change in the outer environment emphasizes the stable Self. Children who are moved often from one neighborhood to another are more sharply aware of themselves as persons. Primitives who live always in the same village, with the same neighbors, commonly show practically no self-awareness. Even civilized adults become self-conscious in a strange situation.

Factors Delaying Self-awareness.—Why is the child so slow in developing an awareness of Self as differentiated from others? Why is the nucleus of self-feeling detectable only after the second or even the third birthday? Three contributing factors deserve mention.

1. The infant has a very poor memory. While learning is possible during the first postnatal week, or even prior to birth, only very simple learning seems possible and several repetitions are required. Since the idea of Self is essentially an abstraction of a common factor from all one's personal memories, it must necessarily wait until the memory function is better developed.

2. Even if the memory process were more efficient, the young child simply does not have the *background of experience* to distinguish Self from environment. When things happen, he does not have the necessary data to evaluate their importance *to him.* He cannot separate mother from himself (mentally, that is) until there have been some vivid occurrences involving physical separation. He must build up some idea of the differences between himself and others. Even with an excellent memory, it would take the child some time to accumulate the data requisite to evolving the concept of Self.

3. Another factor is the child's deficiency in language. Numerous experiments indicate that discriminations are much easier when distinctive

responses can be made to each discriminable stimulus. The discrimination of Self from environment calls for some kind of differential response, the most available type being verbal. While self-awareness could probably be developed without language, it would almost certainly be of a diffuse type, merging the individual's conception of himself with his personal possessions and his near-by environment.

The Self-image.—We have pointed out (Chap. III) that many "tests" of personality give us the individual's picture of himself. It is obvious that this self-portrait is often at variance with the observations of intimate friends or of trained psychologists. We shall find it valuable, therefore, to consider briefly some of the sources which contribute to the formation of this inner picture.

His Real Characteristics.—The objectively present attributes of the child—his physique, intelligence, emotionality—are, of course, contributory to the Self-image. An unusually small stature, for example, often has a marked effect on the individual's self-estimation. In fact, the compensatory reactions, such as a loud voice and other mannerisms directed to making him seem bigger than he really is, are widely recognized. A very fine physique or a defect of some obvious type may have marked effects upon the conception of Self. Mental ability and other capacities, of course, also contribute their share to this picture.

Descriptions by Adults.—Almost as important as the child's real attributes are those characteristics imputed to him by parents and other adults. A boy who has grown up surrounded by an admiring family may have a gross overvaluation of his intelligence, attractiveness, and physical prowess. He may have been discouraged from testing out his qualities in real situations and, instead, may have been led to believe in the beautiful picture painted by those whose opinion he respects.

Conversely, great damage can be done to the nuclear Self by derogatory descriptions handed down by adults. Parents who habitually, in the child's presence, speak of him as stupid, clumsy, or naughty, induce him to develop a corresponding Self-portrait. He may, further, act in accordance with this characterization. If he perceives himself as awkward, he will almost certainly do things in such a way as to merit the adjective. The Self-image is of tremendous importance, because it operates as a controlling pattern for everyday behavior.

Comparisons with Others.—The child may, let us say, be average in intelligence. If he has the misfortune to follow a very brilliant older brother, he may perceive himself (and be regarded by his parents) as quite stupid. Children of inferior mental ability make better school adjustments when placed in groups separate from the superior children, so that

the constant strain of unfair competition is removed. (This value is neutralized if the teacher frequently reminds the dullards of their segregation in a slow group.)

Inner Pressure.—Finally we may mention the factor of ambition or aspiration as a determinant of the Self-image. The boy of ordinary physique who has athletic ambitions may unconsciously distort his inner self-evaluation. A lad born to a long line of military heroes will be under both outer and inner pressure to picture himself in a similar role. Such incorrect self-portraits contribute substantially to personal and vocational maladjustments.

At this point we should emphasize a converse of the processes suggested above. The building of a Self-image is not all positive in nature. The deletion of certain undesirable features is constantly going on. This is chiefly a process of *refusing to observe* manifestations which are contrary to the picture that the individual wants to maintain. The negative evidence is *repressed.* When attention to these attributes is forced, rationalizations are usually ready to proffer "I'm not usually like that," "I'm not feeling well today."

The extent to which this process will function is determined by the felt importance to the Self of such a characteristic. Traits which are perceived as major aspects of the Self-image (ego-involved) will be vigorously defended. If the ambition is focused on intellectual success, physical inadequacy may be admitted without too much embarrassment, whereas evidence of intellectual incompetence will be covered up with vehement emotion. The factor of self-reference cannot be ignored in evaluating any of the more complex phases of personality organization.

Segmental Selves.—Does the personality necessarily develop a single, unified, internally consistent Self-image? Even casual observation justifies a negative answer. William James once asserted that a man has as many Selves as there are separate groups about whose opinion he cares. While this may be an overstatement (since the expectations of many groups may be sufficiently alike that he does not differentiate in this manner), it is certainly in the direction of truth. With his family a man may picture himself as a good provider; with a pretty stenographer, as a Don Juan; with "the boys," as a hard-drinking, poker-playing fool; in business, as a shrewd, ruthless, but fair competitor. Such integrated conceptions of Self in specific contexts will be referred to as segmental Selves.

It has already been stated that the concept of Self arises as a polarized differentiation from the Not-Self, the outer environment. This must be

modified by pointing out that the Self remains related to the environment, and that separate aspects of the Self come into focus when different environments surround the individual.

In Fig. 28 a diagrammatic representation of the complex interactions of complexes, prejudices, traits, "Selves," and the Self has been attempted. This diagram has two functions: it implies the hierarchy of complexity

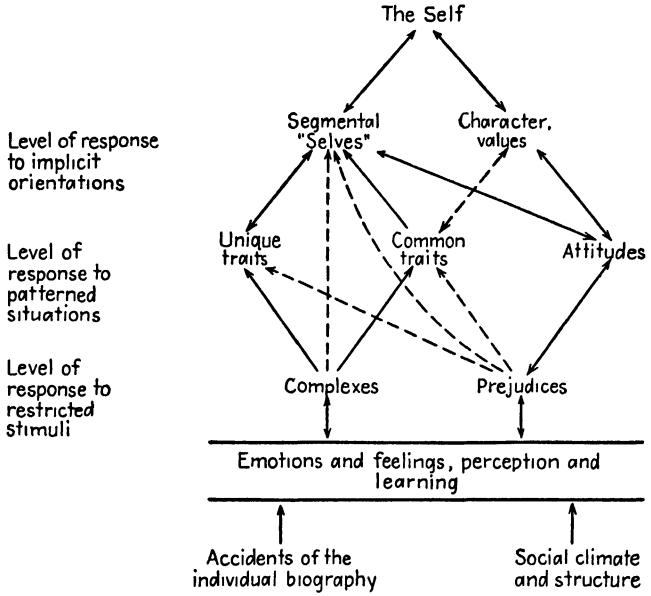


FIG. 28.—Interaction in the development of complex phases of personality. Arrows indicate the direction of modification; *e.g.*, prejudices may help to determine attitudes, and in turn may be modified by them. Items "higher" in the chart usually dominate those at lower levels. (*This diagram was suggested by a different representation in Allport,* 1937.)

and dominance, the higher functions being maintained intact at the cost of forcing change at the lower level in many instances; and it also suggests the chronological sequence of development from the simple, all-or-nothing emotional responses of early childhood to the highly organized and differentiated patterns of the mature adult. Despite this complication, the chart may help to systematize the hypotheses presented so far.

Shifting Roles.—The Self-image, and more particularly the quasi-independent patterns called "Selves," will be determined to a considerable extent by the role or roles imposed upon the individual by society. The individual learns what is expected of him; he then develops habit patterns and inner beliefs in conformity with the group standards.

In the normal course of events, the individual remains primarily affiliated with one major group, and thus develops a Self-image which is not disrupted by conflicting expectancies of different social patterns. This person may then differentiate segmental "Selves" which will deviate only to the extent of exaggerating certain traits—sexuality, economic motivation, race prejudice, good fellowship—in accordance with the frame of reference appropriate to the special situation.

We occasionally encounter, however, abnormal cases of "multiple personality," in which completely contrasting sets of common and unique traits are manifest. The most satisfactory explanation of these seems to be that the individual, in his normal social relationships, encounters excessive frustration. While superficially adapted to the situation, in fantasy he builds a different Self-image with a different evaluation of himself and his environment. Later, because of special circumstances not clearly understood, but including such factors as fatigue and shock, the fantasied or subsidiary Self-image may replace the established Self and the individual will change his behavior to conform to this new pattern [*cf.* Prince (1905)].

The problem of developing a consistent picture of the Self in its relation to society is accentuated for people who are forced to assume sharply different roles at different times. The "marginal man," the individual who has status in two or more groups of conflicting patterns, encounters this difficulty. Warner, Junker, and Adams (1941) report some very interesting cases of this type: *e.g.,* middle-class, light-skin Negroes who feel psychological attractions to both Negro and middle-class white societies. The varying social expectancies to which the individual is exposed inevitably make difficult the organization of a consistent Self-image.

Security and Self-esteem

Because the Self-image is an evaluation of the Self in relation to the environment, we can for convenience distinguish two modes of variation: differences in the evaluation of the environment and differences in the conception of the Self, as such. We shall call these *security feeling* and *self-esteem,* respectively.

Security.—In Chap. V we laid considerable stress on the point that the young child begins to develop a generalized picture of the environment from the time of birth, and that the chief axis of variation between individuals was with reference to the favorable or threatening quality of the external world. As the child encounters a majority of pleasant experiences, he tends to evolve a picture of himself in a warm, friendly environment, where he is loved and cared for. By contrast, the child who experiences a great deal of frustration, pain, discomfort, and uncertainty may be described as developing a picture of himself surrounded by dangers,

threats, and impending catastrophe. The two extremes of this dimension are called security and insecurity, respectively. Whenever attempts have been made to measure these features of the Self-image [*cf.* Maslow *et al.* (1945)], it has been found that most people fall between the extremes: they have some security and some insecurity feelings. This is logical, in view of the fact that every child is likely to encounter some pleasant and some painful experiences; to find that some adults are kind, others harsh to him; and to succeed in some, fail in other goal-directed activities.

A high level of security seems associated with a high degree of frustration tolerance. Because the individual perceives his environment as basically friendly, he can take a considerable series of shocks before his equilibrium is disturbed. The insecure individual, by contrast, cannot appreciate good fortune; the world is to him intrinsically hostile, and he will not believe in evidences of good faith. He is, none the less, likely to make exaggerated demands upon his friends for manifestations of affection and to treat every microscopic slight as proof of deep ill will. Secure personalities are generally characterized by patience and tolerance, qualities which are relatively lacking in the insecure person.[2]

Self-esteem.—Because conceit (egotism, or self-esteem) constitutes an aspect of personality which can scarcely be overlooked, it has long been studied and discussed by psychologists. The conceited individual perceives himself as being superior to others in one, many, or all respects. All people in Western culture are subject to pressure for overestimation of Self, but also to a degree of modesty in direct expression. Persons who are overtly egotistical are thus likely to be infantile, inadequately socialized, and unpopular. If the excess of self-esteem is compensatory in character (developed to cover an inner feeling of inferiority), this failure to achieve popularity forces the individual to act even more blatantly, just as the behavior of the insecure individual often increases his insecurity.

Both very low and very high self-esteem are likely to be associated with inadequately integrated self concepts. The individual whose Self-image includes many derogatory self-evaluations finds it difficult to live with and accept this image. An exaggerated sense of self-importance is likely to occur only in a rather infantile person who has failed to develop an accurate perspective on his status in society. Moderate self-esteem is correlated with better adjustment than either extreme.

The Ascendance-Submission test developed by F. H. and G. W. Allport (1928) includes some measure of self-esteem, although it was intended pri-

[2] *Cf.* Frenkel-Brunswik and Sanford (1945) on anti-Semitism.

marily as a measure of socially assertive behavior. Persons with low self-esteem tend to project their ideas onto others and to assume that others have low opinions of them. They then avoid being in a forward or conspicuous role, to allay this anxiety.

Bernreuter (1933a) included in his Personality Inventory a measure derived from the A-S test, but he labeled this trait "dominance" and found it to be negatively related to introversion and emotional instability. Stagner (1937) prepared a scale with a set of questions alleged to measure persistence, but upon interviewing his subjects concluded that persons rating themselves high on persistence were really conceited. Order was brought into this area by the work of Maslow (1939), who pointed out the necessity of separating *dominance behavior* from *dominance feeling*, and concluded that dominance feeling was virtually identical with self-esteem.

Relations between Security and Self-esteem.—Curiously enough, there does not seem to be any very close correlation between security and self-esteem. There is a general tendency for persons who feel insecure to evaluate themselves poorly, but there are a great many exceptions, mostly of a compensatory type.

Maslow, who has done some of the best work in this area, proposes that the interrelations of security and self-esteem can best be understood if we examine the extreme combinations. Four, he points out, are possible: (1) High security, high self-esteem; this person has strength, and also affection for his fellow man; he behaves in a kindly, protective fashion. (2) Low security, high self-esteem; this individual has strength, but feels hostility and fear of others, and is likely to behave in a ruthless, sadistic manner. (3) Low security, low self-esteem; this is the masochist, or "bootlicker." (4) High security, low self-esteem; this is the quiet, sweet, dependent personality. While these characterizations are wholly applicable only to a few individuals in any group, they are suggestive of the importance that these two facets of the Self-image have in determining total behavior.

In America, it is normal to show a moderate amount of self-esteem by overvaluing oneself on rating scales and questionnaires (see Fig. 29). This apparently is not true of other cultures, *e.g.*, the Chinese.

Functions of the Self-image

In the diagrammatic representation of the various aspects of personality discussed so far (Fig. 28), we have shown the Self as the pinnacle of an interlacing set of specific and generalized tendencies. This is intended to suggest that the Self-image acts as a determining agency—at least, to a

limited extent—in controlling the lower, less complex functions. In the topological system of Lewin (as illustrated in Fig. 5, page 68), the Self is represented at the center of a differentiated area, the outer rim of which represents the region of contact with the environment. By this Lewin wishes to call attention to the relative inaccessibility of the Self, *i.e.*, the fact that we do not readily reveal our true Selves to casual observation,

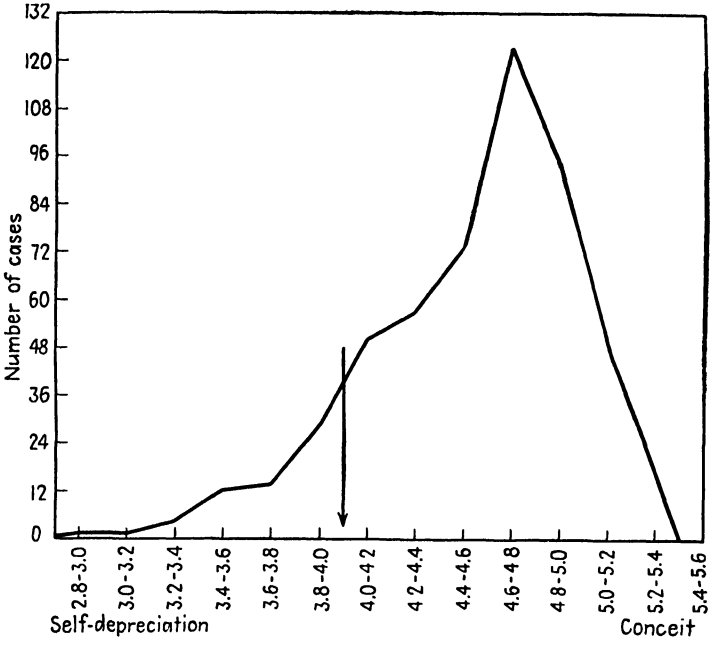


FIG. 29.—Distribution of scores on self-esteem. Almost all American college students show some tendency toward conceit; the arrow marks the theoretical neutral point on the scale. (*Data based on 524 college men, from Stagner*, 1937.)

and that the Self is not easily modified by external stimulation. Murray (1938) found the need for "inviolacy of the self" to be a significant variable in the personalities of the men studied intensively at his clinic.

We may suggest, in line with these ideas, that the Self-image serves two major functions in the personality: (1) as a generalized determining tendency which rules out certain inconsistencies in the simpler patterns, and (2) as an unchanging or slowly changing nucleus of stability within the personality.

Control.—My Self-image is "what I believe to be the real Me." As indicated above, much of this is actually what others believe to be the real Me, introjected and made an intrinsic part of my Self-image. It

may in part be the "ideal Me," as opposed to reality. Nevertheless, once I believe an imputed trait to be an essential feature of my Self, other patterns are modified to conform reasonably well with it.

An easy example is that of an individual who has been converted to communism. This change involves a drastic revision of the person's picture of himself, and particularly of his perceived relationships to his environment. The role of social reformer is now predominant in his mind. The result usually is a decided revision in such lower level attitudes as race prejudice, economic values, and conventionality—although any direct attempt to change these patterns would have been resisted vigorously.

Self-respect appears to be chiefly our introjected conception of the respect of others. Ultimately we respect in ourselves what our parents respected in us or what we learned would merit respect from our contemporaries. This conception, however, is subject to modification and eventually may be relatively independent of any actual social group. One will, nevertheless, attempt to maintain his self-respect by acting in accordance with the Self-image. Superficial characteristics will be abandoned in order to preserve the integrity of the inner Self. To act out his role as a Don Juan, a young man may change his attitudes regarding money, a job, or friendship. The Self-image determines a frame of reference within which these other tendencies must function. If they prove too sharply inconsistent with the Self, they are suppressed or repressed.

It might, however, be misleading to emphasize too much this principle of the unity of the personality. While the Self-image overrules some inconsistent patterns, this process is far from complete. Many conflicts of both wish and behavior will persist in the average personality.

Personality is always *unitas multiplex,* the unity being enforced by the fact that all one's activities involve a single physiological mechanism, as well as by the need for self-consistency. We often find, none the less, that the unity is deep and hard to locate; the multiplicity apparent, if not overwhelming. A psychologist or psychiatrist may, by patient study, locate the "unity thema"; although to the layman, this personality is still a mixture of perplexing contradictions. In these circumstances, too much stress on unity may encourage the untrained observer to imagine a patterned unity based on superficial and relatively unimportant characteristics. Thus we assert that the Self functions *in the direction of unity,* but by no means guarantees its attainment.

Avoidance of Harm.—Subordinate to this control function, and apparently an extension of it, is the function of inhibiting reactions which might bring harm to the individual. The self concept develops around a core of bodily sensations. One suspects that pain plays an exceptionally

weighty role here. The Freudians, for example, emphasize the function of the Ego as an agent seeking for the Id (basic desires) a maximum of pleasure and a minimum of pain.

Frustration tolerance, or the ability to maintain equilibrium under pain or blockage of fundamental motives, is either an innate quality of the organism or one developed early in life. Persons who have "good self-control" are those who can withstand pain without murmuring, see their fondest hopes go glimmering and continue to work, maintain coordinated activities under the stress of anger or fear. Persons low in frustration tolerance crack under strain, lose control of their actions. The role of a tightly organized Self-image in maintaining integrated behavior under frustrating conditions should be obvious.

Stability.—A second function of the Self-image is that of providing a stable inner core, which changes very slowly, thus lending continuity to the personality. Darley (1938) studied the degree of resistance to change of various mental patterns. The rank order (from least to most resistant) was reported as follows: (1) recently acquired attitudes toward objects remote from the Self, (2) opinions based on ignorance or misinformation, (3) superstitions, (4) deep-seated prejudices, (5) opinions or systematic stereotypes based on early childhood training, and (6) opinions about the Self.

Various studies of attempts to change attitudes indicate that *ego-involved* attitudes are more stubbornly held than superficial attitudes. Watson and Hartmann (1939) found that a religious value with which the individual felt a personal identification was not perceptibly modified by a barrage of techniques. This must be compared with the numerous studies of superficial attitudes (on birth control, labor unions, censorship, and so on) which are easily modified by only slight psychological pressure.

The importance of a stable Self-image is further emphasized by the fact that emotional maladjustment seems to be associated with instability in the individual's judgments about himself. Several studies [3] have reported that the best items for identifying the "neurotic" personality are also likely to be quite ambiguous, subject to varying interpretations by different people, and answered in a different way by subjects repeating the test. This sounds utterly confusing, since an item which gets differing responses from the same individual on different occasions would seem useless. The key lies in the fact that the person with an unstable Self-image may report

[3] See Neprash (1936), Hertzman and Gould (1939), Eisenberg (1941), and Crook (1943).

himself neurotic in one respect this week, in another next week.[4] In fact, it would be in harmony with many observations of such personalities if this lack of inner integration proved to be a primary factor in the development of the neurotic pattern.

Level of Aspiration

The Self-image is evaluated as satisfactory or unsatisfactory to the individual in terms of his frame of reference. This, in turn, depends on his contact with groups, his perception of their expectancies, his ideal Self, his personal successes or failures, and his conception of what is possible. While it is difficult to devise methods of studying these diverse factors directly, it is possible to investigate their end product. The technique most widely employed in this connection is the level-of-aspiration experiment.

The standard procedure for this experiment is to present an individual with some task of moderate difficulty, in which he is not skilled—*e.g.*, dart throwing, tossing pennies, or canceling letters. He is given one trial and told his score. He is then asked to predict his performance on the next trial. "What will you do next time?" is a commonly used form for this question.[5]

It is presumed that the individual's need to impute only the characteristics of success to his Self-image will impel him to set his goal higher than his performance. Frank (1935) argues that the difference between past-performance score and expressed-aspiration score will be a function of varying tendencies: the need to keep aspiration level high, the need to make aspiration level conform to reality, and the need to avoid failure. In the actual experiment, it appears that these specific needs may function in radically different fashion within different personalities. One boy may define failure as doing less than he predicted; another may define it in terms of a concealed standard far below his expressed aspiration.

Even more confusing, from the point of view of interpreting aspiration scores, is the fact that the same person does not always show similar aspirations in different tests. Gould (1939), in a careful study, used six measures: synonyms, steadiness, speed in addition, digit substitution, cancellation of letters, and a target test (sliding metal disks onto a bull's-

[4] The variability of specific persons, even those who are quite maladjusted, should not be overstated here. Note that Crook found a rather high constancy of answers to definite items, after time intervals up to 6 years (page 159).

[5] We cannot explain why such an ambiguous question has been so widely used. As recent experiments have shown, the wording of the question leaves the subject free to state what he really *expects* to do, what he would *like* to do, or what he is *afraid* that he may do.

eye). She found that the difference scores (amount by which prediction differed from performance) in these six tests did not agree very closely. The 15 intercorrelations ranged from .04 to .44, with a median at .29. This means that a man with high aspiration on one test might be very low on a second and average on a third—the aspiration level was not constant. This means that there may be not a level of aspiration in general, but only specific levels for each task set.

Gould's interviews with her subjects indicated, however, that different estimates of performance might serve the same ego-protective function. Thus a person might take a certain pride in setting a high goal, even though he never achieved it; a second individual would take pride in always achieving his estimate; and a third might be proud of uniformly doing better than his estimate! A study of rationalizations indicated that the same difference score might mean different mental processes in varying subjects.

Group Standards.—We have already indicated that frames of reference are profoundly influenced, if not absolutely determined, by the standards of the group within which a personality develops. Similarly, level of aspiration is markedly determined by the group with which the person compares himself. Festinger (1942) informed his subjects that they were doing better (or worse) than some specified group: high school, college, or graduate students. Aspirations were affected particularly by the subjects' being told they were below college students (their peers). His subjects were not much motivated by being either above or below high school students (inferior standard) and were satisfied to be either above or below graduate students (superior standard). Preston and Bayton (1941) studied Negro college men. Midway in the experiment the subject was informed that he was doing as well as white (or Negro) men in other colleges. The group compared with whites tended to a lower aspiration level, especially as defined by estimates of the lowest score that they might make. This is interpreted as indicating the demoralizing effect of comparing a subordinate to a dominant group. Performance much inferior to the whites was now perceived as a reasonable possibility.

Maladjustment.—Gruen (1945) has shown that level of aspiration is related to emotional maladjustment. Students who rated themselves as emotionally unstable (Rogers test) tended to make either very high aspiration estimates, or estimates below actual performance. The well-adjusted group consistently gave estimates just a little above average performance. It is suggested that maladjusted individuals tend to be influenced in exaggerated form by wish or fear, while the normal person keeps a good balance between hope and reality. Another possibility to

be kept in mind is that a basic feature of the emotionally maladjusted personality is a certain instability of the Self-image—and presumably, instability in evaluating hopes of success and fears of failure.

Significance of Aspiration Level.—The significance of ambition in personality is obvious. Progress through life is largely a succession of aspirations toward specific goals, whether or not they are achieved. There is some doubt, however, that the level-of-aspiration experiment has cast significant light on the nature of this process. At the most, we can say that certain theoretical points have been verified and sharpened. In our culture the individual during adolescence, if not throughout life, is constantly comparing himself with his conception of acceptable performance, *i.e.*, with social expectation. His level of aspiration represents in part his expectancy based on past success and failure, and in part his perception of himself in relation to group standards. Further, it appears that some subjects can use a high aspiration level as a kind of satisfaction in itself, even though performance is poor. Finally, the aspiration experiment represents a device for putting the person under pressure, and thus revealing rather quickly his rationalizations, evasions, and other ego-defense mechanisms.

Unconscious Self-judgments

The task of studying the Self experimentally is complicated by a variety of personal and cultural considerations. The individual who is asked directly to reveal his inner characteristics may feel a desire to show off his good points and conceal his inferiorities. He is under social pressure to be modest. He will feel anxiety about the purpose of the experiment and will give different responses according to the degree of confidence he has in the experimenter.

Psychologists are, therefore, greatly indebted to Werner Wolff (1943) for devising a technique of obtaining *unconscious self-judgments.* While this sounds like a contradiction in terms, the method is not too complicated. Wolff obtained, without the knowledge of his subjects, photographs of their clasped hands, of outspread hands, and of facial silhouettes; samples of handwriting; and samples of voice. In the case of handwriting and voice, all subjects used the same words. Some weeks or months later, the subject was asked to judge the probable personality characteristics of various persons from these data; unknown to him, his own records were mixed in with those of other people.[6]

Recognition of Self in these records is surprisingly rare. Huntley

[6] In order to disguise the handwriting further, it was presented in mirror image.

(1940), who duplicated Wolff's work with a larger group, found that less than one-third recognized their own hands, mirrored writing, or facial profiles. From those who failed to recognize themselves we get a chance to study unconscious self-evaluation.

Outstanding in the data of both Wolff and Huntley is the presence of *extreme* judgments in the unconscious self-ratings. As Fig. 30 shows,

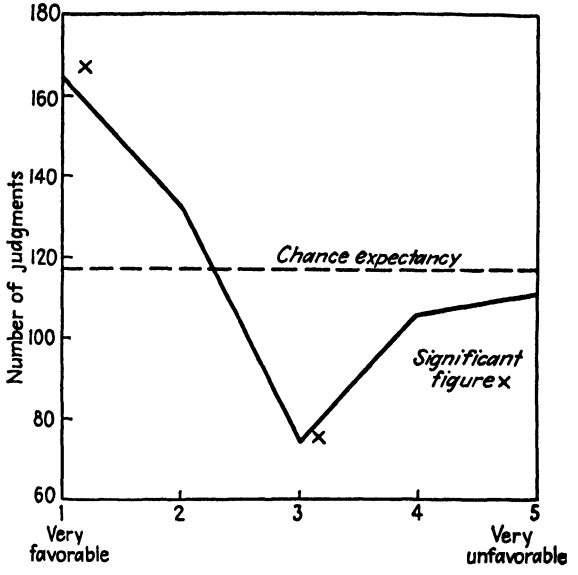


FIG. 30.—Distribution of unconscious self-judgments. Note the great excess of highly favorable judgments of Self, as compared with chance expectancy, and the relative scarcity of neutral evaluations. (*Modified from Huntley*, 1940.)

there are far more highly favorable judgments than would be expected by chance; far fewer neutral or average judgments than we would expect; and an increase, though not above chance, in the number of very unfavorable judgments.

It is clear that the Self-image is influencing these ratings, even though self-recognition is not involved. (Stimuli may be effective even though below the limen of conscious awareness—*cf.* Chap. VI.) It also seems that, under such conditions, self-esteem is considerably higher than would be indicated by questionnaires. In Wolff's tests the individual very rarely judges himself to be average.

How can we explain the sharp increase in unfavorable as compared with neutral judgments? The best explanation seems to be that most of us have repressed from consciousness many aspects of the Self-image

which we are unwilling to recognize. A boy who is ashamed of his big nose, for example, may repress awareness of this feature. Perhaps it symbolizes vulgarity in his mind, or it may have sexual or other unpleasant connotations. Judgments on the profile may then be that the person is a vulgar or highly sexed individual. The unconscious self-evaluations, in other words, may give us information about features which the person fears he has, but consciously denies. In this respect Wolff's method is analogous to Murray's Thematic Apperception Test.

Wolff's investigations have confirmed the findings of psychoanalysis and projective techniques in indicating that the normal personality includes much more intense, infantile egotism, as well as more intense self-depreciation, than is revealed by ordinary observation. These characteristics are suppressed or repressed to avoid social disapproval. They can, none the less, reveal themselves under the special conditions of the Wolff technique.[7]

In the level-of-aspiration studies, it was noted that the well-adjusted personality set a goal slightly above present achievement, whereas maladjusted individuals either aimed at excessively high goals or curbed ambition for fear of failure. The Wolff experiments seem to show that the tendency to push the Self-image high in terms of social standards is very strong in all of us, but in the well-balanced personality it probably is kept under control to avoid social criticism. Similarly, the Self-image usually includes some undesirable traits, which are repressed to avoid the mental pain involved. Neurotic and psychotic individuals indulge in unrestrained boasting or in merciless self-criticism. In the normal personality only such special devices as the Wolff technique will bring out these extremely favorable and extremely unfavorable self-judgments.

Insight

Individuals differ with respect to the extent to which they can see themselves as others see them. John may be able to verbalize his Self-image in such a way that it corresponds closely with the judgment of competent observers. Jim, on the other hand, may perceive himself in a manner which seems quite at variance with the judgment of experts. In relation to personality, *insight* means the ability to perceive the Self in an objective manner.

It is obvious that this is one characteristic on which we cannot accept self-report. The extent to which the various forms of unconscious

[7] Sodium pentothal, moderate alcoholic intoxication, and partial anesthesia may also reveal these concealed features.

learning and selective forgetting have operated to prevent conscious recognition of certain features is highly variable. Inherent in this fact is the impossibility of being conscious of unconscious material. Insight into *peripheral* characteristics is, of course, fairly painless; but traits very intimately embedded in the Self-image are quite difficult to judge in an objective way. Repression is the great enemy of insight. Because we tend to forget incidents which are humiliating or disgraceful, and because we prefer not to recognize our own stupidities and improper acts, we lose insight. The point has already been stressed (Chap. VII) that cure of undesirable emotional conditionings is almost impossible without insight. Unless the visceral and affective components are effectively linked to verbal handles, it is very difficult to establish new, more mature, behavior and understanding.

Sears (1936) has given some interesting and important evidence on the role of insight. He had boys rate themselves and also a group of close friends. Thus it was possible to compare the self-rating with the opinions of several intimates. Insight was operationally judged present when these two agreed. Now, when the ratings of those boys low in insight were studied, it was found that they had a notable tendency to *project* their own bad characteristics onto others, to deny in themselves that which observers agreed was present, and to see this same trait to excess in their fellows. This, a typical self-defensive reaction, is obviously inimical to mental health, as well as preventing accurate judgment of the personalities of others.

Perspective

Objects which loom large when viewed at close range seem smaller at a distance. An out-of-focus perception distorts the real relationships of things in the environment. Adequate perspective allows us to get large and small troubles into their proper proportions.

The good judge of personality is capable of detachment from his social milieu; he can achieve psychological distance from people and judge them without feeling a close involvement. Adequate self-judgment apparently requires a similar detachment from the Self. It is desirable to achieve proper perspective on ourselves and our traits in relation to our social environment.

There probably is no such thing as a judgment made without a frame of reference, and our evaluations of personality—including self-evaluations—are made within a frame of reference determined by our experiences. To use a fairly simple example, a person may judge himself to be a radical if his reference standard is a group of Vermont Republicans, whereas if he associated for a time with Greenwich Village communists, he might rate himself rather conservative. The same holds for more

intimate personal characteristics. An individual's evaluation of himself as dominant or submissive, emotional or calm, sociable or seclusive, will be dependent to some extent upon the group with which unconsciously he compares himself.

If judgments are always group oriented, how can one change his perspective? Obviously, by widening his range of group contacts, in either reality or fantasy, and by deliberately trying to adopt the viewpoint of people in a different group. Anthropology and history widen perspective by giving us the standards of different cultures. Idealistic formulations, considered as vantage points for viewing the world and ourselves, change the perspective. It is for this reason that anyone with a well-developed philosophy of life is less perturbed by frustrations and disappointments than are others. He can see such happenings in proper perspective as minor events; his judgment is not obscured by viewing things at short range.

The human personality is not bound by its environmental patterns. It is capable of actively seeking out new surroundings and acquiring new perspectives. In this way the scope of the Self can be expanded and self-evaluation clarified.

Summary

The Self concept is presented as the unifying factor running through all our emotional experiences, habits, memories, traits, and values. Except under special circumstances, the Self either is not conscious or is conscious in the form of the Self-image, an abstraction of one's perceptions of his real physique, intellect, habits, and emotions; of his conception of how others see him; and of fantasied qualities and accomplishments.

In Western culture the Self seems to acquire through social pressure an upward tendency, a need to be evaluated highly. This need can be demonstrated to some extent in the level-of-aspiration experiment and very well in Wolff's technique for unconscious self-judgment.

The Self-image always evolves relative to a social group; and in highly stable, small groups, such as primitive tribes, there may be little awareness of Self as opposed to others. An individual with high security feeling has little self-consciousness. Persons shifted often from group to group will develop a clearly differentiated Self concept. If this shifting involves a loss of affection and a feeling that the environment is full of dangers and threats, the person is said to feel insecure. The security-insecurity dimension is a fundamental aspect of the Self-image.

Self-esteem is the positive expression in consciousness of the upward tendency of the Self. Young children show exaggerated self-esteem. As we become socialized, we learn to put on a show of modesty, which may be

penetrated by special methods or may be sloughed off in personality breakdowns.

Insight is the ability objectively to evaluate the Self. Lack of insight is associated with projection, rationalization, and other maladjustive practices. Adequate insight into the Self and its shortcomings is fostered by the attainment of perspective.

Suggestions for Reading

For a more comprehensive discussion of the Self in relation to its social environment, see Kimball Young's *Personality and Problems of Adjustment,* Chaps. IX and X. The role of the body image and visceral sensations in the development of self-awareness has been stressed by numerous psychologists from William James to Gordon Allport. Allport's *Personality: A Psychological Interpretation,* Chap. VI, gives a good treatment. Chap. VIII of the same work presents an excellent discussion of insight. Kurt Koffka's *Principles of Gestalt Psychology,* Chap. VIII, offers a highly sophisticated but stimulating approach to this entire topic. An early treatment of the security-self-esteem topic will be found in Plant's *Personality and the Cultural Pattern,* Chap. V. A sound general treatment of these concepts will be found in Maslow and Mittelman, *Principles of Abnormal Psychology,* Chaps. VIII and IX.

CHAPTER X

CHARACTER

Personality, Temperament, and Character

We have used the concept of personality to include all of those inner dynamic patterns which characterize each person as a unique individual. So far no attempt has been made to draw into this discussion the popular distinction between personality and character. It will be noted, however, that such a differentiation is customarily made. We may speak of a rascal as having a fascinating personality but a very poor character. Some people of high moral character have distinctly neurotic personalities.

There would be less confusion if for the word "personality" in such contexts we substituted the word "temperament." Traditionally, *temperament* has referred to the emotional aspects of personality; *e.g.*, the four temperaments described by Hippocrates—sanguine, choleric, melancholic, and phlegmatic. In this usage temperament would cover most of the material presented in Chaps. V to IX, beginning with the feelings and emotions and considering their modification and integration into adjustment mechanisms, traits, and the Self-image.

Character has customarily been employed to designate that sector of personality most intimately related to socially established codes of ethics and morals. Honesty, truthfulness, integrity and similar traits are included here. Character is thus related to the *socius*, that portion of personality which consists of the introjected standards of custom, convention, and morality, although we note that the *socius* is somewhat more inclusive than character. Many social attitudes (*cf.* Chap. XI), for example, are considered a part of the *socius*, but not part of character.

Character as Belief and Expectancy.—Since we have consistently treated personality as being made up predominantly of systems of beliefs and expectancies about the Self and its relations to the environment, we should see whether the same approach will illumine the psychology of character.

It seems fairly obvious that honesty in any given situation can be helpfully conceived in this way. The child learns to perceive environmental stimuli in relation to a set of approved social standards. This

action is defined as honest (*i.e.*, good); another action is defined as dishonest (*i.e.*, bad). Thus the growing personality acquires frames of reference in terms of which possible acts can be evaluated in terms of the basic approach-withdrawal or good-bad continuum.

Character also shares with personality in general the quality of being erected on an emotional foundation. The positive valence which becomes attached to the label "good," and its consequent capacity as a directive influence on behavior, is only one element in this picture. Punishment for misbehavior becomes a foundation for anxiety; and many tense, nervous personalities are created by excessively rigid standards of morality applied to very young children. The child may be spanked (or threatened with loss of love and security) for lying or stealing, when his acts were normal responses for his age level. It should also be obvious that anger and aggressiveness, related to excessive frustration, may find an outlet in destructive and anti-social behavior.

Conscience, which is an essential element of character, can be characterized as a pattern of inhibitory conditionings. The child contemplates a certain act; if the mental image of himself performing the act carries a negative valence (is unpleasant), he will inhibit the tendency to behave in this way. The role of words in transferring affect from one punishment situation to others is important here. If, on the other hand, the child anticipates *no increase in pain* as a consequence of his act, he will not inhibit the action.

General and Specific Views of Character

We have reviewed in Chap. VIII the controversy over personality traits as specific habits or as generalized tendencies. The same disagreement is found in the character area. Common parlance and traditional psychology suggest that character is a generalized feature of the individual, so that it is appropriate to speak of "strong" or "weak" characters, without a need to specify in what respects they are strong or weak. This assumes that behavior is sufficiently consistent from one situation to another to give such statements meaning. Contrasted with this is the view, somewhat more prevalent today, that "character" is simply a blanket term, covering a number of relatively independent, specific habits; and further, that a person who manifests socially approved evaluations in one context is not thereby shown to be dependable in other situations. Proponents of this view would hold, for example, that respect for property rights would not necessarily be associated with respect for the truth.

Despite years of study and experimentation, this controversy is farther from being settled than that relating to temperamental trait systems. A

brief review of the available data will, however, make possible a few tentative conclusions on the topic.

Work of the Character Education Inquiry.—The most impressive and, to date, the most valuable investigation on the nature of character is that of the Character Education Inquiry. This study, which devised new techniques, administered tests and scales to hundreds of children and collected detailed information about their home and school behavior, furnishes most of the data of a scientifically controlled sort available on this problem. We shall, therefore, take time to quote at length from their procedures and results.

The directors of this investigation chose as their main objectives (1) the child's moral knowledge, (2) the child's attitudes and opinions and (3) the child's actual conduct. As subsidiary lines of evidence they studied the reputation of the child among his classmates, estimates of character traits by teachers, and so on. It is obvious that these latter factors are not measures of character, but they may be useful in identifying pupils for closer study.

Techniques.—The methods used in collecting the information required were ingenious. For the measurement of moral knowledge and moral opinions, of course, objective questionnaires were used. In the study of overt behavior, however, every effort was made to eliminate any suggestion that the investigator was interested in character, honesty or any of the specific aims of the investigation. One of the honesty tests, for example, involved sending the child on an errand at the end of which he received more than the correct change. He was scored on whether or not he returned the money. Another involved the possibility of cheating in a party game (pinning the tail on a picture of a donkey while blindfolded); a third, cheating on an examination. In the same way, behavior which presumably showed qualities of inhibition, perseverance, etc., was tested by concrete situations rather than by the purely verbal procedure characteristic of most previous studies in this field.

In studying reputations, a typical device was the Guess Who test. Several judges drew up standardized character sketches of 100 children, which were then used as a sort of rating device against which other children could be checked.

The statistical work of the inquiry centered around the following questions: (1) Are honesty, trustworthiness, perseverance, etc., *traits* of character (as we have defined traits) or are they simply blanket terms covering bundles of unrelated habits? (2) Are there relations between verbal and overt behavior other than those which would be expected on the basis

of such trait names? (3) Are there correlated factors which might explain the findings uncovered in answering the first two questions?

Results of the Inquiry.—The results of the Character Education Inquiry fill three volumes. It is therefore manifestly impossible for us to do more than sketch in typical outlines from their results. Since their best procedures were in testing "honesty," we shall confine ourselves to that phase of the study.

The results are interpreted by the researchers as indicating a high degree of specificity in character reactions. The children were found not to have generalized their concepts of honesty, cooperation, perseverance, self-control, and so on, to a point at which their responses on one test could be predicted from another unless the two situations were very similar. In general (for example), it was possible to state that the child who cheated in one *classroom* situation would cheat in another one; but this same child might be scrupulously honest in athletics, party games, and so on. The child who took money might not be willing to look at an answer on an examination, and so on.[1] The authors remark of the child's response to a specific test situation that "the secret of his performance lies in the specific experiences which have brought satisfaction and disappointment to him in the course of his short career." [2]

TABLE 8.—CORRELATIONS BETWEEN MORAL KNOWLEDGE AND TOTAL HONESTY SCORE

	Pop. *X*	Pop. *Y*	Pop. *Z*	Pop. *XYZ*
"Good citizenship"	.35	.28	.30	.31
Information	.40	.37	.39	.39
Opinion *B*	.20	.30	.23	.31
Opinion *A*	.33	.19	.30	.32
Opinion *A* plus *B*	.29	.27	.29	.35

Not only is there a low correlation between different tests of a given "trait," but there is a low relationship between behavior and information or attitude. For example, Table 8 gives the correlation of "total honesty score" (the sum of the situations in which the child acted in what an adult would call an honest manner) with "moral knowledge" (information and

[1] Students apparently develop codes defining conditions under which cheating is permissible. A friend in another college is authority for the statement that his students consider cheating unfair when it is done to raise a grade, but not when it is done to keep from failing a course!

[2] Hartshorne, May, and Shuttleworth, 1930, p. 374.

opinions). The correlations, even when the three school groups are pooled (giving a total of over 700 children in population *XYZ*), are all low, although indicating a general tendency for the child with better information and attitudes to behave more honestly. A surprising fact is that the correlation of behavior with information is higher than the correlation with either attitude scale. When the two scales are summed, however, the resulting correlation is almost as high as that with the moral-information score.

While there seems to be no question that the "honesty scores" really measure honesty, in the sense that the things the children did would unhesitatingly be labeled honest or dishonest by adults, yet the ratings of teachers and other well-acquainted individuals agreed but poorly with the test scores. The correlation of "honesty ratings" with "total honesty scores" was only .25! This may, of course, be interpreted to mean that the ratings were poor, that the tests were unreliable and invalid, or both. Taking into consideration, however, the fact that the different objective scores for honesty do not agree closely, it seems to mean that when we make a rating on honesty, or total scores designed to measure honesty, we are doing something which is psychologically fallacious, in the sense that there is no psychological reality corresponding to "honesty in general." There is only honesty on examinations, or honesty with money, or honesty with one's playmates.

Is There a General "Good Character"?—Since there is little evidence for general honesty, cooperativeness, self-control, and so on, one would expect the evidence to contradict the widespread belief in "good" characters and "bad" ones. Such actually is the case. Insofar as the measures of integration devised by Hartshorne and May may be considered valid measures of character consistency, we are justified in stating that some children show fairly high integration, but most show little or no consistency in their responses to test situations. The indication, therefore, is that while some children might be accurately classified as "good" or "bad" characters, most children can be more accurately rated on highly specific aspects of behavior.

Limitations of the CEI Data.—It appears that, as far as these data go, we must answer two of the original questions with the conclusion that character reactions are chiefly matters of training the child how to respond in a particular situation. "Behavior on a very extensive battery of tests of honesty is externally determined (*i.e.*, not determined by character in general) *in about* 60 *per cent of all children* in grades 5 to 8."[3] Such a

[3] The italics are the author's.

conclusion, of course, does not at all rule out the existence of generalized character traits, but simply finds them rare or nonexistent in children of this age level.

Many authorities in the field of personality and character have objected to the highly specifistic interpretation placed on the CEI data. As spokesman for this group, Allport (1935) may be cited as follows:

"It has been objected . . . that a high degree of generality must not be expected in young children, and that in the older children, the Inquiry did indeed find greater evidence of consistency. It has been objected that the moral habits studied are too few and too distantly related to give a reasonable opportunity for generality to emerge in the results. It has been objected that ethical rather than psychological conceptions were used, and that, although children may not be consistent in character, *socially defined*, they may be quite consistent in their own *personal* attitudes and traits. It has been pointed out that, although general moral attitudes have not been developed under our piece-meal method of education, there is no proof that such general attitudes cannot under proper conditions of instruction be produced. It has been objected, furthermore, that the theory of specificity rests upon an arbitrary interpretation of equivocal results." [4]

Reason for Inconsistency May Be in Social Standards.—The fact that the Character Education and other inquiries have reported moral behavior to be poorly generalized and determined in the main by specific situations may reflect merely the fact that our moral standards are capricious. Even grade school students have been known to observe that the theft of a million dollars is not punished as severely as that of a hundred; and high school students commonly discuss the fact that the "smart guy gets rich without working." A group of teachers and principals in the author's class once went into their own experiences with children on these problems and came out with the conclusion that our social standards are directly responsible for a great deal of juvenile crime.

There is psychological consistency between being "honest" in some situations and "dishonest" in others, if the child gets prestige in the one case by conforming to adult standards and in the other by conforming to child or group standards. Stealing may be a form of self-assertion in the face of authority, in one instance; where the authority factor does not appear, the same child may behave in a perfectly honest manner. In terms of the *subjective reference* of the behavior or its involvement with the Self-image, then, such apparent inconsistencies become harmonized. Compare Gordon Allport's diagrammatic representation of possible inner

[4] From *Handbook of Social Psychology*, ed. by C. Murchison, p. 811. Used by permission of Clark University Press, publishers.

consistencies ignored by the Character Education Inquiry, Fig. 21, page 143.

There is a profound discrepancy between our accepted social standards for the acts of individuals in informal situations and the acts of the same individuals in formalized business or political roles. It is psychologically consistent for a man to be meticulous about leaving the exact number of pennies for the paper boy, yet to defraud stockholders of thousands of dollars by manipulating stock in which he holds an interest. Until social values are harmonized, behavior relating to those values will be dissociated and inconsistent.

Distribution of Character Traits.—The results of the Hartshorne-May studies indicate that character traits, to the extent that they are measurable, distribute themselves according to the curve of normal distribution, as we have already found traits and other psychological characteristics to be distributed. By this statement, of course, we mean that there is no sharp dividing line marking off "honest" from "dishonest," "truthful" from "lying," or "moral" from "immoral" people. Rather do we have some people consistently honest, some consistently dishonest, and more who are occasionally the one, occasionally the other. There is no point at which we can divide our group into "good" and "bad" characters.

This approach, which is typical of the scientific psychologist's approach to personality problems in general, is in sharp contrast to the popular and the legal attitude toward character. The law, which is a result of, as well as a determiner of, public opinion, holds that it is possible to divide people into a dichotomy, *i.e.*, into two mutually exclusive groups. In the one group we place "bad" characters, those who have been convicted of specified actions which are socially disapproved. In the other we place "good" characters, goodness being defined in most cases as the absence of "badness." While this point of view is in obvious contradiction to the facts, it has continued for ages and may undoubtedly be expected to persist for some time.[5]

Many studies of character traits have been based on this legalistic approach to character measurement or classification. From a practical point of view they may be justified; but from a psychological viewpoint, it is confusing, because different kinds of delinquency have different personal implications. It is agreed by Hart *et al.* (1943) and Hewitt and Jenkins

[5] It is interesting to note, in this connection, that criminal records seem to prove specificity in adults. Few criminals who are convicted of more than one crime vary their offense; they stick to the same thing. In other tempting situations they may be quite "honest."

(1946) that at least three groups can be segregated from a typical random population of delinquent boys: a *socialized* category, characterized by cooperative stealing and gang activity; an *unsocialized aggressive* category, involving violent and destructive behavior, usually without companions; and a *neurotic* group, characterized by inhibitions, feelings of inferiority, and inner conflicts, whose delinquency may be a form of compensation unrelated to either of the other categories.

Analysis of Delinquent Behavior

Delinquency and Neurosis.—A great number of researchers are in agreement that delinquent children will, on the average, score significantly above control children on tests of emotions or neuroticism. Even when intelligence and economic status (both of which are below average in the typical delinquent groups) are equated, delinquents have an excess of worries, depressions, and emotionally infantile characteristics. A careful study by Capwell (1945) illustrates this point. She compared 52 delinquent girls with 52 nondelinquent girls of the same age level and matched as to IQ. Several personality tests were employed; the one giving the most clear-cut results was the Minnesota Multi-phasic Personality Inventory. On this scale, as Table 9 shows, there were highly sig-

Table 9.—Emotional Trends of Delinquent and Nondelinquent Girls of Equal Intelligence [1]

MMPI Scale	Percentage of Delinquents Who Reached or Exceeded 75th Percentile of Nondelinquents
Psychopathic deviate	93
Paranoid	84
Manic	63
Schizoid	57
Psychasthenic	57
Depression	55

[1] Modified from Capwell (1945). All of the differences shown are statistically significant. In a normal population, about 25 per cent would reach the stated level.

nificant differences on six different characteristics; in every case, the delinquents resembled more closely the abnormal patients upon whom the inventory was validated. The delinquent girls are particularly characterized by tendencies toward shallowness of emotional response and disregard of other people (psychopathic deviate scale) and feelings of persecution (paranoid scale). They also show more depressions, excitement, psy-

chasthenic and schizoid trends than do the control group. Parallel findings have been reported by numerous investigators for delinquent boys, and for male and female adult criminals.

This observation, however, should not be taken at face value. There are a number of points to be kept in mind in interpreting these data. (1) Delinquents and criminals have, by the nature of their situation, more things to worry about; if they are in confinement, they will have occasion to be depressed and anxious far more frequently than the average child. (2) Relatively few neurotics become criminals, and many criminals are not emotionally maladjusted to any significant degree. (3) There are actually many cases in which it appears that delinquency is an alternative reaction to a nervous breakdown.

Delinquency and Conflict.—Delinquent acts occur because, in most cases [6] at least, the child wants some object or condition (positive valence) more than he fears the potential punishment (negative valence). But the very existence of such alternative implies the existence of a conflict. As we have noted (Chap. V), many individuals react in an *aggressive* manner to frustration and conflict; they attempt to break down the barrier or to overcome the obstacle. From the mental hygienist's point of view, this is a more healthy approach than the *intropunitive* pattern, in which the aggression is turned inward (self-criticism, self-punishment, with resulting anxiety and depression). If we take a long-range view, therefore, the aggressive delinquent is adopting a healthier attitude than the withdrawn, moody, anxious child. Ackerly writes:

"Two of the most heavily handicapped, though least delinquent in the group (of ten rebellious boys) gave up the struggle, one attempting suicide and one by a pronounced infantile regression. . . . In the other eight, effective rebellion and delinquency went hand in hand with maintenance of a comparatively healthy ego integration." [7]

The delinquent, on the other hand, gets himself into more trouble by his attacks on his frustrations. Thus, he has more conflicts and in many cases cannot successfully attack his new barriers (police, jail). He consequently is likely to be overwhelmed by his difficulties and plunged into depression. Houtchens *et al.* (1937) found their serious delinquents significantly higher on both the manic and the depressed scales of the Humm-Wadsworth inventory than either mild delinquents or controls. It seems possible that many of these emotional upsets are at a superficial

[6] Possible exceptions would be cases in which the child was not aware of the danger of punishment—did not anticipate it.

[7] Ackerly (1933), pp. 158-159. Reprinted by permission.

level, being related to their frustrating situation, rather than to deep-seated maladjustments characteristic of the neurotic.

Other writers have stressed the fact that delinquency, regardless of its antisocial nature, represents an active attempt by the individual to solve his conflicts and is, thus, a constructive approach. With certain exceptions which will be noted below, we are therefore inclined to view the resort to crime as a form of conflict adjustment essentially more healthy than the self-punitive, anxious neuroticism evolved by so many frustrated children.[8]

Delinquency as Tension Release.—In the type of criminal or delinquent act which directly attacks a frustrating situation (a poor child stealing toys or a stupid boy achieving some sense of power by bullying others), we observe a simple and direct relationship between conflict and expression. This does not always hold. We find a number of curious instances in which delinquent behavior serves as a substitution for other acts which are even more unpleasant to the child than stealing. Healy (1915) described many cases in which the offense had no relation other than a symbolic one to the inner tension and in which it was considered a release phenomenon, rather than a direct attempt to satisfy a need. A typical case is the following:

"Case 65. A girl of German parentage, who when first seen was a little over 10, for two years had been engaged in much petty stealing. She had taken money and other things, not only from her parents on repeated occasions, but also money and jewelry from neighbors, and various things from school. She had already stolen in two schools, and been expelled. In spite of much threatening of police, and reform school, and some whipping, and having been given money regularly to spend, there had been no improvement. She was said to be strong-willed, but not quick-tempered, and to lie only in the matter of stealing. . . .

"Nothing in any way explanatory of this girl's persistent stealing at first could be obtained. She is cleanly and extremely modest, avoids vulgarity most carefully, is not quick-tempered, likes picture shows in a normal way. She has a good voice, and enjoys singing. She is very affectionate to parents. She learns games quickly and enjoys them—in all ways seems to be a normal, and very bright little girl.

[8] For some reason, very little Rorschach study has been done on delinquent children. An abstract of work by a Canadian psychologist [see Luke (1943)] reports a comparison of 80 delinquent boys with 80 matched controls, and indicates that the delinquents were more often aggressive, obstinate, and afflicted with anxieties, fantasies, and inferiority feelings. This is in general harmony with the questionnaire data cited above. The results would be more valuable if the subjects were classified as to type of behavior problem exhibited.

"In an attempt, after a couple of first interviews, which brought forth nothing, to get at the genesis of her stealing, very interesting situations came to light. It seems that where the family lived two years previously she had for a playmate a little boy. She spoke of him with some vehemence, and after considerable inquiry said that this boy long ago told her a lot of sex things which she has never well understood, but which have been excessively in her mind ever since. 'That was a boy across the street in *X*, who was not a good boy, but when a fellow comes over you have to treat him nice. He swore before me and said awful ugly words. Papa threw a stick at him once. He started me on the road to saying bad words.' (Her parents stated that she never even used slang.)

" 'He's taken things of mine. I think that's what started me. And then up here I know a girl, and a boy goes with her, and he told her a lot of bad things and she came and told me about them right along. Oh, they are things I would not say. These things come up in my mind often. Well, when I'm in school and have that headache I told you about, and sometimes at night, and then I get all mixed up. They told me many bad things like that, but when I think of them I just start away and go away and that's the only way I can get away from them. When these things come up I forget all I'm doing and get upset and then sometimes I take things.' "[9]

In this case we have an illustration of the statement that keeping a child "pure and innocent" is worse than no protection at all. The only way in which a child can be prepared for these emotional problems is to have a clear, factual understanding of sex, because in that way the feeling of being "all mixed up" can be prevented. This girl's stealing ceased as soon as her sexual worries were relieved by straightforward explanation. Psychologically, the sequence of events seems to be this: association of stealing or other delinquent behavior with sexual misdemeanors; severe repression of the latter as far as performance went, but inability to get rid of the thoughts about it; and substitution of the less reprehensible behavior as a way of relieving the very real strain which seems to be present.

Delinquency Is Learned.—The child who is in an unpleasant home environment, where poverty, severe discipline, denial of love, and similar frustrations assail him, must react in some way. Rebellion against this home life and the social codes which the parents represent, may lead to the acquisition of habits which come into conflict with the law. We note, however, that the specific mode of expression of this tendency—the delinquent act—is learned. It is learned as part of the total context of personality—the traits, defense mechanisms, and Self-image, which characterize the complete individual. This means that delinquencies acquired

[9] Healy (1915), pp. 370-373. Reprinted by permission of Little, Brown & Company, publishers.

through imitation and suggestion may be superficial and, therefore, easily eradicated, while those which are ego-involved—those closely integrated with the Self—will be central and hard to change.

Delinquency is basically an act of rebellion—against excessively harsh and unloving parents, against a physically frustrating environment, or against the social authorities who may symbolically represent both parents and environment. The ability to rebel overtly, however, is related to incompleteness of development of the Super-Ego, or conscience (see Chap. XV), and individuals with a different character structure, in which the social prohibitions and taboos have successfully been introjected, literally cannot resort to crime. It is not compatible with their own inner pattern. These latter personalities often find other ways to rebel (*cf.* Chap. XI).

In a certain number of cases we find that conscience has developed to a substantial extent, but that the individual commits antisocial acts because the taboo against these is weaker than another which he is tempted to violate. In accordance with the principle of equivalent stimuli, violation of various moral codes may be psychologically equated; and the child who is tempted in the sex area may obtain temporary release by violating the less terrifying property code. The fact that this release of tension leads to more frustrations and thus defeats the purpose of the act is a consequence which cannot be foreseen or used as a cue to action by the delinquent.

At any rate, the evidence clearly contradicts the view that any useful purpose is served by classifying character as either good or bad. Outside the specific area of revolt, the individual often conforms adequately to social requirements. Character, as far as these studies go, has consistency chiefly in relation to broader traits of temperament and personality, not in relation to social standards. The way to reform the delinquent, therefore, is not to punish the whole child, but to supply adequate modes of self-expression through which these same traits can function in a socially acceptable manner. Punishment which is brief, immediate, and closely related to the asocial act can operate to influence the child against repetition of that act. Punishment which is prolonged and relates to the total personality, with all its good as well as bad acts, can only result in the development of a desperate resentment against society and continued aggressive retaliation.

Integrity

It is not necessary to confine ourselves to a negative approach to character. We need not define a good character as "a person who has never been arrested." We may also recognize and study those character-

istics which are associated with the popular conception of superior character.

Such terms as "integrity," "trustworthiness," and "persistence under hardships" come to mind when we try to analyze the concept of a fine character. Cattell (1945) lists the adjectives "honest," "self-controlled," "self-denying," "loyal," "fair-minded," and "reliable" as identifying nuclear traits within the sector of integrity. Some of these characteristics, of course, may be found in the delinquent. Loyalty to the gang, sticking to a plan in the face of difficulties, taking risks to help criminal associates, persistence despite criticism will be found in many delinquents. As a general rule, however, we are likely to find that these characteristics are reduced or lacking in persons of socially undesirable character.

Integrity Implies Ego-involvement.—Essentially, what we see as an explanatory factor in these apparently conflicting observations is the fact of ego involvement. If the individual feels that acting in a particular way is part of his essential Self-image, he will show the characteristics of persistence, resistance to suggestion, thoroughness, and conscientiousness. Thus a lad may show great perseverance and resistance to temptations to quit when he is engaged on some extracurricular activity, but work half-heartedly and quit easily when doing disagreeable school tasks.

A General "Will" Factor.—The point of view suggested in the preceding paragraph would imply that there is no general "will" factor, no trait of personality which identifies one person as dependably high on these characteristics in all fields and another individual as consistently lacking in these ways of behaving. There is a good deal of evidence that this is not true; that there actually is a generalized "will" factor. Let us consider the data and see if the two apparently contradictory approaches can be harmonized.

"Will" Defined by Ratings.—In Webb's pioneer study (1915) on the general character factor, which was based on ratings, 200 college students were rated for specific types of behavior, and these judgments were then intercorrelated. It was found by factor analysis that there was one general factor running through all these estimates and that it seemed to correspond roughly to the common notion of "good character." Highest loadings were found for the characteristics "conscientious," "persistent in the face of difficulties," "kind on principle," "not given to displays of anger," "not given to oscillation of mood." Webb called this factor *w*, or will factor, considering it to be the core of character.

Many critics have doubted the validity of Webb's findings, since his ratings allow the halo effect to operate very extensively. Confirmation of

Webb's findings by Chi (1937), however, justifies more confidence in the existence of the *w* factor, particularly because Chi employed a statistical device for eliminating or minimizing the halo effect. We are thus less inclined to suspect that the general factor resides solely in the minds of the raters.

In Chi's data the traits loaded most heavily with the general factor were initiative, mental alertness, accuracy, promptness, independence, and industry. These differ slightly from those reported by Webb to be the best measures of *w*. The difference perhaps is related to the difference between American and British cultural evaluations of desirable character.

"Will" Estimated by Tests.—The best objective study of a general character factor by tests is that of Brogden (1940). He employed a battery of 40 tests, including 11 measures of intelligence, 4 objective tests of honesty (Character Education Inquiry), 3 tests of persistence, and others for perseveration, inhibition, suggestibility, and so on. He also employed 10 questionnaires, such as the Woodworth for emotional stability and the Character Education Inquiry forms for moral attitudes.

Brogden reports the isolation of seven general factors, of which five are clearly related to character. The first and most general is weighted heavily on conscientiousness, resistance to suggestion, freedom from perseveration, and preference for dependable characters. This bears a marked resemblance to the *w* factor, isolated by Webb and Chi from ratings, and thus tends to support Webb's hypothesis. Brogden's other character factors were honesty, persistence, dutifulness or self-control, and a willingness to accept adult moral codes. While these were theoretically independent by the statistical analysis, it is probable that in most cases they would be found to go together.

Perseveration.—It may be possible to integrate these findings by reference to the *p* factor, or perseverative tendency. Perseveration is operationally defined as the inability to shift rapidly from one act to another—the first act persisting to interfere with the second—and is especially clear in the field of motor activity. Typical tests include writing letters normally, then writing mirror images; shifting from addition to subtraction; canceling one letter and then changing to canceling a different one. This *p* factor is entirely different from voluntary persistence on a task; it actually seems somehow to be the reverse. Brogden found his persistence factor loaded heavily on the side of freedom from perseveration.

Pinard (1932) reports that desirable characters seem to fall in the middle of the perseveration distribution, rather than at either extreme. From a group of boys living in a children's home he got the distribution shown in Table 10. The ratings on character patterns were made by the

professional staff of the home. It is clear that either extreme perseveration or extreme lack of perseveration makes for low character ratings.

TABLE 10.—RELATION OF PERSEVERATION TENDENCY TO CHARACTER

(After Pinard, 1932)

Degree of perseveration	Number of boys	Character rating			
		Difficult	Self-controlled	Persevering	Unreliable
Extreme perseverators	27	23	5	6	22
Moderate perseverators	31	4	24	19	9
Moderate nonperseverators	29	8	20	20	8
Extreme nonperseverators	26	20	5	4	21

In Chap. IV it was proposed that personality structures differ with regard to *rigidity*—the ease with which systems are modified and the degree to which systems influence each other within the personality. Perhaps perseveration is the experimental analogue of rigidity. An excessively rigid person is one who does not change readily and who is prone to keep his ideas and emotions in logic-tight compartments, so that they do not shake down to mutual consistency. This corresponds generally to Pinard's picture of the high perseverators—rebellious, nonsuggestible, not amenable to adult control. The person who falls below a reasonable minimum of rigidity, correspondingly, might be expected to be too easily influenced, lacking in personal direction, always changing. Pinard characterizes his low perseverators as weak, suggestible, whining, petty—plausibly similar to the personality lacking sufficient "backbone." The *p* factor, then, seems to belong to the category of "source traits," and to furnish a connecting link between the conflicting trends in our data on character.

As in other contexts, so in the analysis of integrity we find that it is hopeless to seek a categorical verdict that behavior is exclusively generalized or completely specific. Character cannot be separated from the Self-image, and the nuclear quality of persistence, resistance to suggestion, or integrity, as we may choose to label it, is a generalized feature of the Self.

The specific factors in character must be understood in the light of our analysis of conditioning (Chap. VI) and adjustment mechanisms (Chap. VII). Whether the child is high, low, or moderate on persistence and

integrity, the actual pleasantness and unpleasantness experienced in connection with specific situations will have much to do with his later conduct on comparable occasions. The anxiety resulting from violation of the rules against stealing, lying, cheating, or sexual misconduct may thus remain highly specific. This would account for the relatively low intercorrelations of such acts, both in children and in adults.

Summary

Character is that segment of personality which is defined in ethical or moral, rather than psychological, terms. As a result, we find the data hard to harmonize. Considerable research material supports the thesis that honesty, truthfulness, and other character patterns are quite specific —that there is little basis for the hypothesis of general good or bad characters.

Children convicted of delinquency and adults convicted of crimes are found to be more emotionally unstable than matched normal cases. This finding must be modified by noting that much of the delinquent's emotionality is probably situational, since the evidence indicates that in many cases revolt against the environment is an alternative to a neurotic breakdown.

Approaching the problem of character from the point of view of defining superior character, as opposed to the study of delinquency, we find considerable evidence for generalization. There is probably a generalized *w* factor, in the nature of a source trait, which involves persistence and integrity plus adequate conformity to adult codes. Underlying this seems to be at least one other generalized tendency, the *p* factor, or perseverative tendency, which is likely to lead to character and personality problems if present to excess or if not up to a desirable minimum.

The solution to the general versus specific controversy regarding character, therefore, is to accept both alternatives, the integrity-persistence-rigidity pattern being generalized, but reactions such as honesty, truthfulness, and morality being to a very considerable extent specific to the situations in which they have been acquired.

Suggestions for Reading

The three-volume report of the Character Education Inquiry is still the most complete source of information in this area. Healy and Bronner's *New Light on Delinquency* summarizes important data collected by these two veteran investigators. Alexander and Healy offer, in *Roots of Crime,* a rather technical psychoanalytic discussion of the motivation of delinquents and criminals. Some recent work is summarized in Chap. 26 of Hunt's *Personality and the Behavior Disorders.*

CHAPTER XI

ATTITUDES AND VALUES

Our emotional reactions not only become attached to other people and to total situations, resulting in those traits which we have described, but they also become conditioned to verbal labels or ideas. The latter process results in the formation of emotional stereotypes, typical examples being "our country," "Jews," and "communists."

Stereotypes are commonly associated with a certain generalized percept or tendency to react in a certain way, regardless of the situation in which the stereotype occurs. For example, some persons, especially those from our Southern states, would withdraw from any situation in which a Negro participated; Nazis, from any situation involving Jews. This generalized reaction tendency to situations involving a particular stereotype we shall call an attitude.

The difference between attitudes and traits is a matter of degree only. We have applied the term "trait" to those reactions which have become so effectively generalized that the common element of determination is a matter of subjective reference. The attitude, on the other hand, has an objective reference, although the stimulus is conceptualized rather than concrete. It might legitimately be said, then, that an attitude is a little more specific, less generalized, than a trait; but the exact line of demarcation would be difficult to draw (*cf.* Fig. 23, page 152).

The attitude is characterized always by (1) an object, (2) a direction, and (3) intensity. The object may be considered the intellectual or cognitive aspect of the experience. The direction is given by the predominantly pleasant or unpleasant feeling tone bound up with this intellectual understanding. Intensity may be thought of as related to excitement, or degree of activity which will be released by situations involving the attitude. Thus a stereotype, *e.g.*, "scab," has both a meaning and an affective element. A "pro-fascist" attitude involves both comprehension of certain situations and emotional reactions for or against these conditions.

Stereotype and Attitude.—Two points of view exist among psychologists with reference to these attitudes. One considers the stereotype, or

the intensity of the affective reaction to the stereotype, as the most important aspect. According to this view, the study of prejudice against Jews, for example, would concentrate on determining the presence of this prejudice and its intensity. This task of measurement is met by the Thurstone opinionaire technique described on a later page. By this method it is possible to describe a person with considerable accuracy as regards his emotional reaction toward war, communism, birth control, and so on.

The other point of view implies that, while the emotional stereotype is significant and its measurement is important, the real question is, What are the specific forms of behavior out of which this generalized attitude developed? We might call this a genetic or an analytical approach. In a great many cases it is important to distinguish between one's attitude toward a verbal label and the attitude toward the psychological object, independently of the stereotyped label. We would suggest, then, that, in considering the total behavior of any individual, we might find specific emotional conditionings (complexes) relating to particular objects—dogs, for example; generalized emotional conditionings (stereotypes) relating to more abstract objects, such as the church; and still more generalized conditionings (traits) in which we can no longer distinguish an object, but only an abstracted relationship to the total situation, as in self-confidence.

Methods of Studying Attitudes

Attitudes being, as we have defined them, merely more specific and directed to a known psychological object, as compared with traits, they have been studied by techniques related to, but slightly different from, those used with traits. Most common has been a modified questionnaire method known as the opinonaire. They have also been studied by rating scales and by analysis of actions (voting, etc.). The opinion scale is probably most reliable of the various methods, although not convenient in all cases.

An opinion scale is constructed by collecting statements about a certain psychological object. For example, in studying attitudes on prohibition, it was possible to find statements ranging from complete endorsement of prohibition to complete antagonism to prohibition. Opinions are used which represent differing degrees of approval or disapproval. They are presented to the subjects with the question: Which of these represents your opinion? The opinionaire is thus a special form of questionnaire in which emphasis is laid upon the verbal reaction itself rather than an assumed underlying state.

Equal-appearing Intervals.—Thurstone (1929) has insisted that if the scores for these opinionaires are to be treated statistically (*i.e.*, if a numerical value is to be assigned to the endorsement of particular opinions), the weight attached to each opinion must be determined by a method of judging which gives to each statement the median rating it received from a large number of judges. The value of this system of arriving at numerical values for opinions, according to Thurstone, is that equal distances between opinions (*e.g.*, between 2.1 and 3.1 and between 8.1 and 9.1) are equal, in the sense that the first difference is observed by a number of judges to be equal in value to the second difference. This makes the scale values statistical units which can be averaged and treated in other ways, while arbitrary scoring values for opinions cannot legitimately be treated in this way. From this point of view this equal-appearing intervals technique is mathematically superior to types of opinion scales in which a numerical value is arbitrarily assigned to particular opinions. There are certain difficulties or disadvantages which also attach to the method.

While the Thurstone method is suitable for constructing opinion scales regarding emotional stereotypes, it probably does not, in many cases, reveal the structure of the attitude. Remmers (1933) has constructed a "master scale" of the Thurstone type into which any desired stereotype can be inserted; the scale can then be used without further standardizing. You may with the same opinions measure attitudes toward capital punishment and birth control, attitudes toward labor unions and organized religion, etc. This achievement indicates that the equal-appearing intervals technique measures the strength of emotional reaction toward some stereotyped idea. It does not show the individual reactions which, when integrated, make up one's attitude. For it is apparent that a man's attitude toward labor unions develops and expresses itself in different ways from his attitude toward the church.

Analysis of Stereotypes.—Even if we conclude that the stereotyped mental picture of a group of people, an idea, or an institution is to be the major object of our investigation, we still need not be content with the very limited information gotten from the Thurstone or the Remmers type of scale, which serves only to locate the stereotype on a scale ranging from complete approval to complete disapproval. Various investigators have developed devices for breaking down the stereotype along qualitative lines, so that variations in dimensions other than approval-disapproval can be studied.

Katz and Braly (1935) studied the racial stereotypes of college students by asking them to check from a list of adjectives those believed typical of the different groups named. Distinct patterns were ascribed to the various racial and national groups. The Germans, for example, were industrious and stolid, the Turks cruel and treacherous.

Stagner and Osgood (1946) combined the adjective check list with a graphic rating scale, thus making possible quantitative comparisons among

stereotypes on each qualitative gradient. The form of these items, with an illustration of the results obtained from a series of tests during the prewar and war years, is shown in Fig. 31.

Attitude as Integration of Opinions.—The majority of opinion inventories name the stereotype, and thus differ only in minor respects from

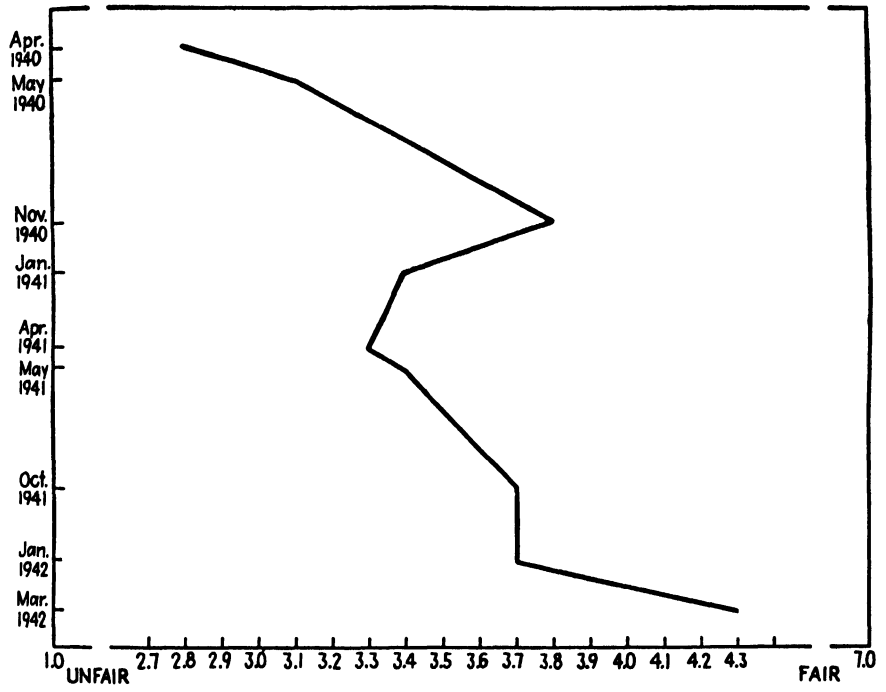


FIG. 31.—Changes in stereotype of Russians, 1940 to 1942. Successive samples of Dartmouth students indicated their attitude toward Russians on a scale from "unfair" to "fair." Note the steady improvement in the average student's mental picture of the Russians as the war progressed.

the adjective analysis of stereotypes. This technique has a fatal weakness when the social scientist wishes to study an action tendency apart from its label. It is said that the late Huey Long, in one of his sober moments, remarked that "It would be easy to sell fascism to the American people; just call it anti-fascism." For once it seems that Huey was right. At the conclusion of a detailed study of attitudes sympathetic to fascism, the following remarks were made on the technique of studying attitudes:

"It is obvious that if we made up a scale ranging from statements such as 'I think fascism is lovely' to 'I think fascism is terrible,' we should get attitude scores, but they would not represent the basic attitude which made it possible

for fascist appeals to raise a tremendous mass following in Italy and Germany. And we should not learn anything about the specific responses which are integrated into the general attitude or disposition to react." [1]

In this study, for example, the first step made was to collect samples of fascist propaganda, quotations from fascist leaders, and the like. An attempt was then made to organize these conceptually. Seven more or less distinct ideas were identified, which seemed to characterize fascism: militarism, nationalism, anti-radicalism, contempt for lower (working) class, opposition to labor unions, opposition to monopoly or "big business," and the benevolent-despot theory of government. Parallel statements in American idioms were devised or collected. The test thus prepared was tried out on several hundred cases, and it was found that, while the first five ideas formed a consistent group, the last two did not seem to fit. Statements appropriate to the first five were then kept, as representing a psychological unit which was called "sympathy for fascism." [2]

In this study the word "fascism" was not incorporated, except that at the end subjects were asked their opinions about Nazi Germany. Seventy-five per cent of them were strongly antagonistic to German fascism. Yet, of this 75 per cent, many endorsed all—or virtually all—of the opinions characteristic of the European fascist movements. There is thus an attitude structure independent of the stereotyped label, "fascism"; every alert citizen should learn to recognize it.

Other Indexes of Opinion.—It is not necessary to prepare a formal opinion scale to study attitudes and opinions. Membership in a group which holds decided views on any topic is a plausible index of opinion. The child who is "born into" a given church is likely to absorb attitudes from his elders, and the adult who voluntarily joins such a group shows endorsement of the leading tenets.

Free statements of opinion, as in the case of autobiographical material, can also be used to study attitudes. It is apparent, for example, that the persons writing the two following passages differ with respect to religious attitude; but the degree of difference is not nicely quantified as it might be with a formal scale. The first says:

"I have been raised as an Orthodox Jew. I attended Hebrew school for 7 years, going after school each day and Sunday morning. I still pray about five mornings a week, using the leather bands on my arms and head. I still feel quite keenly about my religion. I have never eaten anything but kosher food. I feel in deep need of religion, and get consolation out of thinking about my religion. I

[1] From Stagner (1936a). Reprinted by permission.

[2] Stagner and Katzoff (1942) factor-analyzed the intercorrelations of the 18 items in this final form and found that three, rather than five, factors were adequate to explain them. These factors were respect for property above human rights, lack of sympathy for the "underdog," and aggressive nationalism.

believe that religion is the greatest thing in a man's life. I cannot understand what atheists live for."

The other writes thus:

"Concerning religion, I could write all day, but I will boil down my idea in a few words. I think that all religion, as it is today, is too narrow, too hypocritical, too backward, and is and will retard the advance of the present civilization if the people do not recognize the latent danger in the outworn church policies. The church is one of the many outworn machines of the patriarchal (*sic*) system that must go."

Various investigators have employed autobiographical material of this type. Stouffer (1931) had students write accounts of their personal experiences relating to alcohol and prohibition; judges then rated these documents for attitude toward prohibition. The ratings correlated very highly (better than .80) with scores on a Thurstone-type scale for attitude toward prohibition.

Other Measures of Attitude.—An opinion is a verbal expression of an attitude. It is obvious that attitudes, considered as basic ways of perceiving and judging a particular psychological object, may be expressed in many other ways. Voting in elections is an obvious example; joining in a lynch mob or a pogrom is another. The projective techniques which proved so useful in studying emotional and motivational traits are also showing their value in the investigation of attitude.

Picture Interpretation.—Fromme (1941) and Proshansky (1943) have reported substantial success in the use of pictures as projective stimuli for attitudes. Fromme administered to his subjects a questionnaire on national policy for preventing war (the data were collected in the summer of 1939), which was in essence a measure of nationalist-internationalist thinking. The following is an interpretation of a rather vague picture of a cemetery with an armed sentry at the gate, ghosts hovering above the tombstones:

"This is an armed guard on a cemetery in France visualizing the ghosts of soldiers of the Allies and also a German soldier. The German soldier seems to be indicating *surrender or supplication.* The sentry is dreaming of the *glories of the past war.* He sees the four soldiers of the Allies united, and the German soldier alone, disarmed, and asking for forgiveness. The soldier then wakes up and begins to consider why common men should fight each other. He attempts to understand international relations and thinks that it would be better if we could *curb the over-aggressiveness of certain countries.*" [3]

[3] Fromme (1941), p. 454. Reprinted by permission. The italics are ours.

The respondent in this case is a successful and fairly wealthy, though young, businessman. He answered almost every item on the questionnaire in a nationalistic manner. The thematic material reinforces our impression of his nationalism, and suggests some of the emotional factors (desire to dominate others, desire for glory) which probably make nationalism so satisfying to him. This is the particular value of the projective approaches; they help us to penetrate behind the "mask," or *manifest content,* of the attitude to the emotional and motivational elements, the *latent content.* We are thus better able to understand the intensity and resistance to change of these attitudes.

Free Association.—Free association, of both the discrete and the continuous variety, may be used as a projective method in the study of attitudes. Shaklee[4] had subjects mark an attitude scale, then read the statements again and give further associated ideas. A man who gave an emphatic "Yes" to a proposal that the United States build up a huge military power, said the following:

"I think there is an analogy between the law-abiding citizen and peace-loving nation, the gangster element and the *militaristic* nation. We must hold a club over the head of warlike nations as we do over gangsters' heads as this is the only thing they will understand."

The additional material here reveals the nature of the mental pictures which guided the opinion choice; it also emphasizes the dissociation which makes possible the advocacy of extreme militarism at home while condemning militaristic trends abroad.

Attitude Measures Are Relative to the Situation.—In all these cases, it must be remembered that the attitude manifested is related to a certain cultural milieu or a given group situation. It took courage for Galileo to defy entrenched conservatives and assert that the earth revolved around the sun; no such courage is required to express this opinion today. A communist in Russia of 1913 was a dangerous radical; today he is a conservative. The significance of stereotyped judgments and opinions endorsed must always be evaluated relative to the existing social climate.

This is particularly well illustrated by Farnsworth's (1943) study of attitudes toward war. The Thurstone-Peterson scale had first been standardized in the relatively peaceful days of 1930-1931. Farnsworth set out to repeat the standardization in 1941. As he expected, he found that the values assigned to many opinions had changed. A statement

[4] Alfred Shaklee; unpublished paper, University of Colorado, 1939.

which any mild pacifist might have made 10 years earlier had now become one which only an extreme pacifist would endorse. As the cultural climate became militaristic, the scale values shifted accordingly.

Attitude measures, once established, can of course be to some extent used to chart the shift in the climate of opinion. As a particularly obvious case, Boyle [5] retested 50 Dartmouth men on an attitude-toward-war scale shortly after Pearl Harbor, the original test having been given some 18 months earlier. There was a highly significant shift toward endorsement of war, although, even here, the shift was not so great as might have been expected. Even a war is not enough to revise completely the individual's inner organization, once it is established.

Does the Opinion Technique Measure Attitudes?—Some psychologists have questioned whether the opinion technique, which uses purely verbal responses, gives a "true" picture of basic attitudes. It has been pointed out, for example, that for many years the citizens of Texas voted "dry" and drank "wet"; that American businessmen advocate free competition and then make contracts preventing it; that the steel companies oppose the "closed shop" for employees while having a "closed shop" for employers, and so on. It is proposed, therefore, that we must set up a dichotomy of opinion and action.

This seems unjustifiable. There are numerous indications that opinions are more than mere verbalizations, that they are also predictive of behavior. In Porter's (1926) study of students' attitudes toward war, for example, student pacifist leaders scored high for opposition to war, while student R.O.T.C. officers scored low in this respect. Another study is that of Neumann (1927), who gave his test of international-mindedness to 40 persons already known to have international interests, *e.g.*, businessmen in international trade, members of the Communist party, religious leaders interested in international church work, etc. In no single case did he find any of these individuals preferring nationalist to internationalist opinions.

If we look at many examples in everyday life, we see clearly that verbal and overt behavior cannot be sharply separated. The opinions of the Supreme Court justices as expressed in their books and essays obviously bear on their decisions in disputed cases, as witness the consistent division of the court in numerous cases. Murphy and Murphy (1931) conclude their discussion of this point by saying:

"After all, a man's categorical opinion about Chinese, or Jews, or Communists, or Rotarians, is in everyday life regarded (if the man be sincere) as a *significant*

[5] Boyle, G. F. (1942). Reported in Stagner (1944b).

part of his behavior. There seems to be no reason why this behavior should suddenly become *non-significant* when it is made the subject of careful inquiry." [6]

There is, indeed, some justification for arguing that opinions are often more valid as indexes of attitude than is true of overt behavior. Consider the case of a man who endorses equal economic opportunity for Negroes. He may actually wish to employ a Negro, but because of orders from his superior or because of fear of economic retaliation by prejudiced customers and suppliers, he may not act accordingly. It is, of course, just as true that opinions are sometimes falsified because of social pressure and fear of criticism. As with emotional traits, there is no single valid index of attitude. Opinions should be considered in the light of other available information about the individual before they are accepted as completely dependable evidence of attitude.

Attitude and Frame of Reference

The intimate relationship between personality and patterns of perception can better be illustrated at the level of attitude than anywhere else in our material. We have a continuous gradation from highly specific, stereotyped reactions to widely generalized frames of reference.

Visual Stereotypes.—Many attitudes can, indeed, be expressed as visual stereotypes more clearly than in any other manner: the capitalist with his fat belly and silk hat, the communist with whiskers and bomb, the paunchy, shirt-sleeved politician. In Fig. 32 a cartoonist presents the stereotyped Britisher and American as distorted conceptions which must be cleared up in the postwar world.

One of the early experiments in this field (Rice, 1926) presented students and adults with photographs of various individuals: a member of the United States Senate, a prominent Bolshevik, an alleged gangster, and so on. They were asked to try to identify the photographs solely by appearance. While the identifications were very rarely correct, choices piled up heavily for a certain picture as representing a given individual because it happened to fit the visual stereotype associated with that group.

Even when stereotypes are not visual, they have a certain perceptual quality. Katz and Cantril (1940) asked Princeton students to check adjectives from a list, to indicate their conception of the "typical" fascist and communist. The top five choices for fascist were militaristic, nationalistic, proud, egotistical, and showy. For communist they were poor, uneducated, radical, fanatical, and stupid. It is not difficult to visualize each of these figures. Also significant is the fact that these young

[6] Murphy and Murphy (1931), p. 626. Reprinted by permission.

men could conceivably identify themselves with the fascist but not with the communist picture; on a forced choice, 68 per cent said they would choose fascism, 32 per cent communism.

Attitudes Actually Modify Perception.—Hypnotically induced attitudes modify our perception of reality (page 89), and an expectation induced by the conditioned-response technique can also change the way

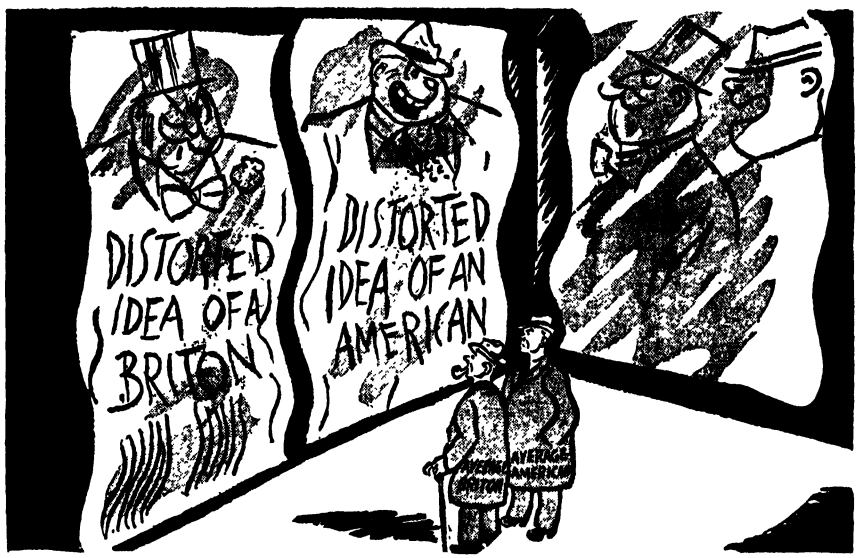


FIG. 32.—A visual representation of British and American stereotypes. The cartoonist has graphically depicted the two peoples' mental pictures of each other as distortions that greatly handicap friendly cooperation. The same conclusion, of course, would hold for almost any two national groups. (*Reprinted by permission of Time and Tide, London.*)

we see our world. Horowitz and Horowitz (1938) found that prejudiced attitudes also interfere with accurate perception. They showed photographs of mixed Negro-white groups to Southern white children and asked them to describe the pictures from memory. Colored children in the scene were frequently omitted entirely. Distortions also occurred; a Negro working cooperatively with whites would be described as engaged in some menial task.[7]

[7] Levinson and Sanford (1944), in the process of standardizing a scale for the measurement of anti-Semitism, observed that people who criticize Jews for being too clannish and seclusive also criticize them for being too forward, trying to push themselves into gentile organizations. Having evolved an unpleasant stereotype of the Jew, they see no inconsistency in ascribing completely opposite behavior patterns to him.

Context and Opinion.—The fruitfulness of this approach can further be illustrated by reference to studies of the effect of propaganda and verbal labels on opinion. It has been demonstrated in a number of investigations that a person will change his *stated* opinion on a given topic if the opinion is (1) ascribed to a person of marked positive or negative prestige, (2) labeled with an emotionally toned stereotype, or (3) otherwise incorporated in a pleasant or an unpleasant context. Does this really mean that attitudes are so easily changed?

The best interpretation of these studies seems to be that which stresses the subject's perception of the opinion statement. It is a commonplace in the psychology of perception that a change in context changes the interpretation of the "real" situation. An excellent example is cited by Asch, Block, and Hertzman (1938). Their technique included having their subjects rate various political slogans for effectiveness and other qualities (thus revealing, of course, their own opinions). Later these slogans were fictitiously ascribed to political leaders, and new ratings were obtained. Thus, a communist who had ranked "America First" very low as a slogan was told that Earl Browder had just employed it in a speech. He then ranked it rather high. Asked to explain, he said, "I decided Browder meant 'America First in the fight against fascism.'" Thus it is clear that he had not changed in basic attitude; he had simply been induced to perceive the slogan in a different light. This process of *redefining the stimulus* occurs quite often and seems to give the clearest insight into the nature of the change. The material presented is reinterpreted, in the light of the new context, to make it fit into a frame of reference which earlier had seemed inappropriate.

Point of View.—One's perception of reality is clearly influenced by the point from which he views a scene. An individual's attitude on social questions likewise assumes that he is looking at the problem from an established location. Schanck (1932) found that a person might take one attitude as a church member, another as a private citizen. Stagner and Osgood (1941) had students mark their gradient test (*cf.* Fig. 31) first in the usual manner, then as they thought the typical Englishman or German would mark it. Analysis of the responses showed that the standards of judgment remained about the same, but the data behaved as if the subject had moved his viewpoint from one end of the scale to the other. If a true change in frame of reference is achieved, then basic modifications of attitude occur. A person converted to a distinctly different religion (*e.g.*, Protestant to Catholic) or political allegiance (conservative to communist) gets a totally different outlook on many problems. He

"sees" them differently and his judgments change accordingly. This is a true attitudinal change.

Personal Reference Points.—Child and Doob (1943) report that people tend to use their own personalities as a point of reference for certain attitudinal judgments, *e.g.*, of foreigners. Their subjects attributed their own personal characteristics to citizens of preferred countries; traits which they disapproved, and said that they did not themselves possess, were imputed to disliked countries; traits approved, but not their own, were ascribed to preferred countries. This phenomenon is similar to that noted in the task of judging personalities unlike and like oneself. It probably illustrates also the projection of repressed (undesirable) personal qualities onto groups which have somehow acquired a negative valence.

The average person—one not lacking self-insight to an unusual degree—recognizes within himself the presence of conflicting tendencies. He doesn't like to be considered a "typical" member of any group; he wants consideration for his unique individuality. When, however, he projects his personal traits onto a group, he simplifies the situation and consequently exaggerates the uniformity of the group. Thus Sappenfield (1942) finds that Catholic students are in fact neutral on the birth-control issue, but they judge the "typical Catholic" to be strongly opposed to contraception. In all religious groups there appeared a similar tendency, on certain issues, to exaggerate the unanimity of the group while ignoring the differences of opinion in the individual's own mind. This may be the ultimate explanation of stereotypes: the need for simplification of a reality which otherwise is too complex to be understood and judged.

Generalized Reference Frames.—As a result of various personal experiences, suggestions, and educational influences, the child develops standards for judgment of racial and religious groups, social policies, economic and political institutions, and other psychological objects. While his judgment on any particular issue is, at first, likely to be an extreme, all-or-nothing affair, taking no account of the ambivalent good-and-bad nature of most issues, there may be little logical consistency between his judgments in different areas. With the passage of time, both the accumulation of experience and his own examination of his inner processes will tend to make his judgments more self-consistent.

Lorge (1939) compared social-attitude scores for two groups of adult men, aged twenty to twenty-five and over forty, respectively. He found that the older group performed more reliably (*i.e.*, the scores on the two halves of each scale agreed more closely) and also more consistently (in the sense that their attitude judgments in related fields harmonized better). Stagner (1936b) found the re-

liability of a pro-fascist attitude scale to be only .68 with college students, but .88 with adults.

Ferguson's Primary-attitude Scales.—At a level of generalization only one degree removed from specific attitudes we find the "primary attitudes" reported by Ferguson (1939). He intercorrelated scores on a large number of measures of specific attitudes: birth control, evolution, the reality of God, war, treatment of criminals, capital punishment, patriotism, censorship, respect for law, and communism. A factor analysis of these correlations revealed the existence of three general factors, corresponding respectively to religious, humanitarian, and nationalistic frames of reference. A summary is shown in Table 11.

TABLE 11.—PATTERNS DEFINING FERGUSON'S THREE "PRIMARY ATTITUDES"

I. Religionism	II. Humanitarianism	III. Nationalism
Favorable to belief in reality of God and disbelief in evolution and birth control	Unfavorable to the harsh treatment of criminals, capital punishment, and war	Respect for law, belief in censorship, and patriotic attitudes
vs.	vs.	vs.
Belief in evolution and birth control, and disbelief in reality of God	Approval of harsh treatment of criminals, capital punishment, and war	Belief in communism, and attitudes unfavorable to law, censorship, and patriotism

It seems likely that primary attitudes, as Ferguson employs the term, would include at least all the areas associated with major social institutions. Thus there should certainly be an "economic" primary attitude, in addition to the three listed. Failure to find such a general factor may be a function of Ferguson's choice of tests, as numerous other investigators have reported test correlations which make the existence of a generalized economic frame of reference quite probable.

The Allport-Vernon Study of Values.—One of the most widely used scales for generalized values, strikingly resembling Ferguson's primary attitudes in certain respects, is the Study of Values prepared by Vernon and Allport (1931). The authors began with a theoretical discussion of Spranger (1928), in which six basic "value types" were proposed: the theoretical, economic, aesthetic, social, political, and religious types. Each of these was considered, not as a pattern which would be shown

in pure form by many individuals, but as a hypothetical extreme which various people approached by degrees.

The Study of Values also differs from the other attitude-measuring devices we have discussed in that it propounds concrete situations about which a judgment is to be made. For example, one question reads: "Do you think that it is justifiable for the greatest artists, such as Beethoven, Wagner, Byron, etc., to be selfish and negligent of the feelings of others?" The subject may indicate strong agreement, strong disagreement, mild agreement, or mild disagreement. Another part of the test offers questions of the following type: "Do you think that a good government should aim chiefly at (1) more aid for the poor, sick and old; (2) the development of manufacturing and trade; (3) introducing more ethical principles into its policies and diplomacy; (4) establishing a position of prestige and respect among nations?" Here the subject is asked to rank the four answers according to his preference.

The scoring of the scale is arbitrarily arranged so that the magnitude of the score obtained on certain series of items gives the relative strength of the corresponding value for this person. Thus a score of 37 on any of the scales is said to show a strong affective reaction toward objects of that particular value. Since the test is so constructed that the subject cannot make high scores on all the scales (in raising his score on one, he lowers it on others), the scores give only relative comparisons within the personality of the strength of these interests or affective responses.

The validity of such a subjective measure as the Study of Values is difficult to demonstrate objectively. The best evidence comes from testing groups who have already, by some decisive action, given an indication of the relative dominance of particular value attitudes. The results of such studies tend in general to confirm the validity of the scale. A group of theological seminary students, for example, made extremely high scores on the religious value, and above average on social; all their other scores were below average. Business-economics students make their highest scores in the economic scale, while science and medicine majors are highest on the theoretical scale.

Since the scales are so standardized that a score of 30 is the hypothetical neutral point for all scores, profiles showing the deviations of individuals above and below this point give a quick indication of major values. In Fig. 33 is given a composite profile of the members of the psychology faculty of Dartmouth College. The very high scores on theoretical, aesthetic, and social values and very low ranking on political and economic items are logically appropriate in this field, particularly in an academic environment. For comparison, the profiles of a large group of

Dartmouth undergraduate men and Wellesley undergraduate women have been drawn in on the same chart. The characteristic sex differences are shown: men run consistently higher on economic and political, women on aesthetic and religious values.

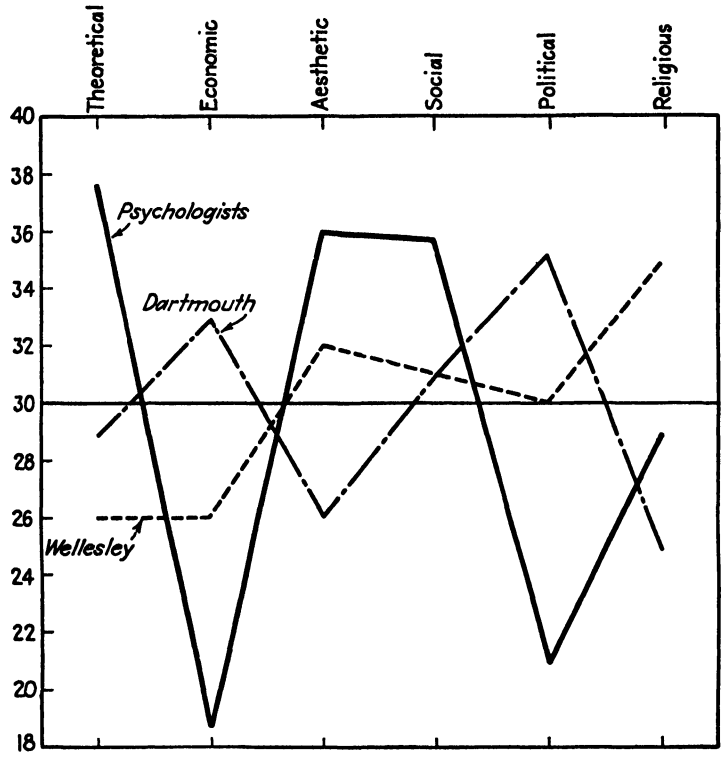


FIG. 33.—Value profile of a psychology faculty. The heavy line shows the composite profile, on the Allport-Vernon Study of Values, for six professors of psychology. For comparison, composite profiles for several hundred Dartmouth and Wellesley undergraduates are also shown.

Generalized Radicalism-conservatism.—Ferguson's primary attitudes are statistically independent of each other, and it is theoretically possible for a person to have religious, economic, nationalistic, and humanitarian values which are unrelated to one another. In practice, it is likely that persons endorsing a conservative policy in one field will be led to adopt a similar attitude elsewhere, and that this will result in the development of a still broader frame of reference, which we may call generalized radicalism-conservatism.

The development of such a set of generalized standards is made likely

not only by the need for internal self-consistency, but also by the fact that many agencies which issue influential suggestions tend to lap over various of these fields. The Catholic church, for example, officially takes a conservative position in religion, and also in opposition to communism; unofficially, church spokesmen are generally conservative as regards all of the issues listed by Ferguson as criteria of his primary attitudes. Left-wing parties tend to become polarized on the nonconservative ends of these gradients. Newspaper editors and political demagogues, in discussing a program for the economic betterment of the underprivileged, usually imply that it will result in undermining existing standards in the fields of morals, religion, industry, and national affairs.

Statistical studies of attitudes which support the view that people develop a generalized pattern of radicalism-conservatism—or that the individual tends to perceive himself as located consistently with respect to the liberal and conservative ends of reference scales in various fields—are quite numerous. Adinarayaniah (1941) found that race prejudice in Britain was significantly related to economic conservatism; Stagner (1944a) reported that economic radicalism-conservatism appeared as a common factor in measures of racial prejudice, nationalism, pro-fascist sentiment, and approval of forceful solutions to problems, with a group of American students. Carlson's (1934) data indicate that, at least among students, intelligence is a factor making for a more liberal attitude.

Case Studies.—Case studies of individuals making extreme scores on almost any economic, religious, or nationalistic attitude scale indicate that such individuals tend to take congruent—but less extreme—positions on other attitude items. The following autobiographical quotation illustrates the Self-image of a college student whose conservatism was generalized to an unusual degree.

"I am so conservative as to be a reactionary. I believe in the paramount importance of infantry and cavalry as opposed to air corps, motorized forces and artillery; I place great reliance on civilian army units rather than on professional soldiers. I have no use for liberal Protestant religion, and advocate the retention of orthodox Christianity. In fact, I even find much to support the argument that battery radio sets are superior to the modern electric types . . . (!)"

That this is not a pose taken for the purposes of the autobiography is indicated by the fact that this young man organized an anti-communist society while he was still in high school, and took a prominent part in one of the "red-baiting" episodes which occurred periodically at the university he attended. He was, as is obvious, intensely militaristic.

Sex Differences in Radicalism-conservatism.—The assumption is usually made that women are more conservative than men. History records that the Spanish Socialists were elected to power in 1931 on a platform calling for enfranchisement of women, and that when they kept this promise, the women voted to throw them out of office at the next election.

Statistically we find considerable evidence supporting the same position. Lundberg (1926) found women to be more conservative on matters relating to labor, government, religion, morals, and domestic problems. However, they were more pacifistic and more inclined toward government ownership. Vetter (1930) also found his women subjects to tend toward the conservative end of his scale.

Development of Attitudes

Attitudes represent evaluative scales for judging, fundamentally, the degree of approval or disapproval accorded a given psychological object. It may thus be anticipated that they develop through the processes of emotional conditioning, transfer, abstraction, and generalization which have been sketched in Chap. VI.

Allport (1935) has proposed that there are four principal ways in which attitudes are developed. These four may be labeled briefly (1) integration, (2) differentiation, (3) trauma, and (4) adoption.

These ways of forming attitudes may be illustrated by the study of Davis (1930) on the development of 163 communist leaders in Russia. Davis analyzed various sources of data on these individuals in an attempt to determine which were the decisive factors inclining them toward communism. Some, he found, developed gradually to a communist position as a result of continued persecution, experiences with the representatives of the Czarist order, and so on (integration). Others were converted suddenly as a result of unusual, shocking, or painful experiences (trauma). A third group show in their development a preliminary stage of vague discontent and interest in various forms of unorthodox ideas, which ultimately became concrete and specific in communist activity (differentiation). Finally, there seemed to be considerable evidence that some of them had simply followed suggestions or examples of friends, teachers, or parents (adoption).

Many observers feel that most young Americans simply adopt their political and economic attitudes, usually from their parents (*cf.* Chap. XVIII). Blake and Dennis (1943) provide evidence that typical stereotypes may go through the processes of *adoption* and *differentiation:*

"The young white child acquires first of all a generally unfavorable attitude toward the Negro, which makes him unwilling to attribute to the Negro any 'good' traits. With increased age and experience, the child gradually learns to apply the adult stereotypes, a few of which are complimentary." [8]

Naturally many instances do not conform clearly to any of these four classifications. A person may develop a stereotype or an attitude as a result of several of these processes operating simultaneously or successively. Attitudes are sometimes shaped or modified by positive conditioning, for which the term "trauma" is distinctly misleading. We may also have a kind of "negative adoption"; children who feel strong resentments against their parents occasionally reject all the attitudes approved by the culture and adopt opposed positions wherever possible.

Importance of Family.—Most attitudes of children find their origin in the attitudes of their parents and other members of the family. Horowitz and Horowitz (1938) studied the development of prejudice against Negroes in white children living in a "border" state between the traditional North and South. They found that, characteristically, young white children showed little or no prejudice, but were taught not to play with colored children. The following quotations from interviews are self-explanatory:

"Mother doesn't want me to play with colored children, cause they colored men. Might have pneumonia if you play with them. I play with colored children sometimes but mamma whips me." (Second-grade girl.)

"Do you ever play with someone your mother doesn't want you to?" "Yes." "What happens?" "Sometimes I get by and sometimes I get a licking. One time I slipped off and played with some colored people, back of our house when she told me not to, and I got a whipping." (Third-grade boy.)

We have elsewhere referred to the process by which the child begins to establish scales of judgment for personal and social situations. It was pointed out that vivid or strongly emotional experiences served as *anchoring points* for the development of frames of reference. The role of experiences such as those cited above, in the determination of a racial standard of values, needs no comment. It is, however, interesting to observe that most of the parents denied telling their children not to play with Negroes. They seemed to believe that the children were innately prejudiced and to forget their own contribution to that prejudice.

The Learning Curve for Prejudice.—For the three tests used in the study of Negro prejudice, Horowitz finds that the curve of development

[8] Blake and Dennis (1943), p. 531. Reprinted by permission of the American Psychological Association, publishers.

is slightly different (Fig. 34). On a pure preference (Ranks test) there is a rapid jump to complete prejudice. On the Show Me test, where the nature of the situation is also a factor, the curve rises more slowly; and on the Social Situations test, the average child had not reached a completely prejudiced attitude by the age of fourteen. This suggests that the white child's generalized prejudice is neutralized to some extent by recognizing that the Negro boy is often a fine athlete, marble player, work companion, and so on. It is, nevertheless, depressing to note that even

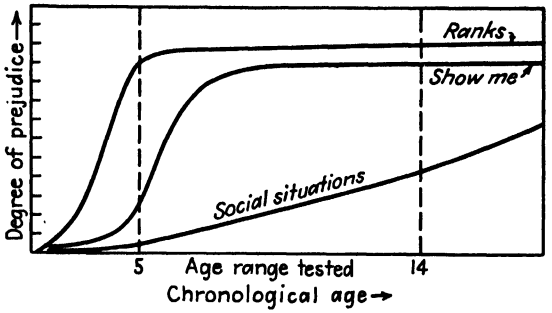


FIG. 34.—Curves of development of anti-Negro prejudice. While these are generalized curves, based on prejudice scores from children of different age levels, the shape is so similar to the typical learning curve as to suggest that a learning process is involved. (*From Horowitz,* 1936.)

on the Situations test, Horowitz' curve of prejudice mounts steadily upward.

The Scapegoat Mechanism.—Many unfavorable stereotypes are held in a manner sufficiently passive to represent no apparent danger to the minority group involved. The existence of such prejudices, however, lays down pathways along which hostility may be discharged when tensions increase. Anti-Semitism in Germany, for example, was widespread but apparently harmless prior to 1928. When the depression hit, a great deal of aggression developed; the Jews were made scapegoats for the frustrations of the German people.

Individuals who manifest intense and active prejudice under normal conditions are probably directing into this channel hostility arising from personal frustrations. Sexual, familial, and vocational situations are often involved. *Projection* of undesirable characteristics onto the minority group is commonly observed. Hitler, for example—certainly one of the most aggressive men who ever lived—was constantly denouncing the Jews for their aggressiveness. Unconscious guilt feelings may shape many attitudes, *e.g.*, toward Negroes in the South. Personal dynamic factors often find expression in political, economic, or religious frames of reference.

Atypical Attitudes

The adoption of a radical attitude in religion, economics, or politics is likely to be an act of rebellion, a rejection of the values endorsed by the parents and the larger community. This means that the stereotypes and frames of reference of the atypical individual are likely to be more heavily freighted with emotion than is the case with the conformist.

Psychoanalytic studies by Lasswell (1930) and statistical investigations by Krout and Stagner (1937) and Stagner (1944c) indicate that a substantial proportion of radicals have experienced feelings of rejection by their parents. They often manifest conscious or unconscious hostility to their parents, particularly the father. Apparently this emotion is transferred to various parent symbols, *e.g.*, employers and heads of governments.

It follows likewise that most radical attitudes show higher ego involvement than is characteristic of conforming attitudes. For one thing, social pressure against atypical views will cause them to be abandoned unless they are strongly held; and it is improbable that they will be so held unless ego involvement is marked. In the second place, an attitude based on strong emotions regarding the parents is tied to images, memories and feelings close to the nucleus of the Self-image.

Atypical Social Situations.—Exceptions to the generalizations noted above may occur. A child born into a radical family will hold atypical attitudes with less fervor than one rebelling against a conservative background. Similarly, one finds an occasional community in which the social climate is liberal, and conformity leads to the development of attitudes which are atypical for the culture as a whole.[9]

Atypical Attitudes and Emotional Maladjustment.—Conservative psychologists and businessmen often take a naïve attitude that the radical is an emotionally maladjusted neurotic. While some of the rebellious nonconformists show an excess of emotional peculiarities, a survey of the literature does not indicate that this generalization has wide applicability. Krout and Stagner (1937) report that symptoms of emotional imbalance

[9] An excellent study of such an instance is reported by Newcomb in his *Personality and Social Change*. College girls, mostly from wealthy, conservative families, were brought together in an educational atmosphere of decided liberalism. He found that the girls switching to liberal views tended toward one of two patterns: (1) a passive attitude of conforming to the opinions of fellow students or (2) a vigorous seeking after leadership by taking an advanced and active position of liberal questions. These same tendencies could be identified in conservative communities, but they become more apparent in the atypical situation studied by Newcomb.

were about equal in their radical and control subjects. Newcomb (1943) found inferiority feelings more common among his conservatives. Probably the relationship between atypical attitudes and neurotic emotionality is a complex one, with each personality differing in some respects from all others.

It may be that in some instances radicalism, like delinquency, is an alternative to personality breakdown. The radical, like the delinquent, is "attacking" an environment of which he does not approve. The radical may not break legal or moral taboos, and hence may not be technically a delinquent; but basically he is directing his aggression into an attempt to break down the barriers which frustrate him.

Frustrations and conflicts may thus lead to a variety of consequences in personality development. They may lead to successful compensations or sublimations and, thus, to a highly desirable pattern; they may lead to evasions, fantasy life, neurotic projections and rationalizations, and eventual disintegration. Active adjustments, however, are not all of equal social value. The delinquent chooses a path which tangles with the forces of law and order; the radical perceives the true source of his frustrations in the institutional pattern and seeks to destroy or modify these institutions. Thus each in his own way reveals the inner pattern of his personality.

Summary

An attitude is a generalized tendency to approve or disapprove, to approach or withdraw from, a conceptual object. Some psychologists would limit the attitude to the status of a stereotype, a mental picture of some group or group symbol. Other psychologists hold that an attitude is more complex, generally comparable to a trait.

Methods of measuring attitudes correspond to these differences in conception. It is possible to study attitudes through practically all the methods listed in Chaps. II and III.

The analysis of attitude data indicates that people tend to develop generalized frames of reference, such as the religious, humanitarian, and other "primary attitudes" or values; and, over and beyond these, there is noticeable a tendency toward generalization of conservative and radical frames of reference encompassing all social fields. The individual who achieves this complete generalization is, of course, rare.

Attitudes and values are products of the interaction of the individual with his environment. Chiefly they are of cultural determination, but unusual family or social situations and unusual dispositions within the individual may profoundly alter the attitude pattern which would be expected if only cultural factors were operating.

Suggestions for Reading

Newcomb's *Personality and Social Change* reports an extensive investigation of factors influencing social attitudes among college students. It has numerous valuable insights into the relations between attitudes and traits. The technical studies on attitudes are well summarized in *Experimental Social Psychology* by Murphy, Murphy, and Newcomb. Harold Lasswell's volumes on *Psychopathology and Politics* and *World Politics and Personal Insecurity* offer provocative, if not always proved, statements regarding the dynamic personal bases of economic and political attitudes. Spranger's *Types of Men* and Campbell's *Human Personality and the Environment* offer interesting treatments of attitude and value. Goodwin Watson's *Action for Unity* discusses the psychological origins of prejudiced attitudes and evaluates techniques for modifying them.

CHAPTER XII

EXPRESSIVE MOVEMENTS

The feelings and emotions are manifested not only as conscious processes, but also through various overt reactions, although these reactions may not be automatic and predictable for each feeling or emotion. It follows that, when the affective life of the individual has become organized into a personality structure, this integration may be studied from the behavioral angle, specifically, in terms of muscular movements and gestures. The purpose of the present chapter is to give the student a general acquaintance with studies in the field of what we call expressive movements.

Many overt acts are defined not in terms of the movements that the subject makes, but in terms of the purpose, intent, or subjective connotation lying back of the reaction. Thus stealing, evading companionship, and going to church are overt, but their significance for personality study is implicit. Hence they have been treated in the foregoing chapters devoted to that side of personality structure. There are, however, many diverse acts of the individual which cannot be thus treated. Shrugging the shoulders, raising the eyebrows, biting the fingernails or scratching the head constitute types of overt behavior which cannot be immediately interpreted in terms of implicit significance. They may, on the other hand, be studied directly as objective forms of response.

The purpose of this discussion is to emphasize the difference between *expressive movements,* which are directly associated with affective states of one sort or another, and *functional activities,* which are complex integrated processes into which feelings and expressive movements may enter as components. Functional activities we have already treated.

Origin of Expressive Movements.—The affective states, pleasantness, unpleasantness, excitement, and depression, in their original unmodified forms lead directly to reflex movements of an expressive nature. In the infant, for example, an unpleasant situation is associated with a simultaneous movement pattern in which waving the arms and legs, screaming, and smooth muscle changes are participants. Before these

activities acquire any meaningful significance, they are excellent illustrations of our category of expressive movement.

One of the most interesting things about the evolution of this total movement pattern is the way in which different parts are broken off or suppressed by training. The "rage" responses of young children are subject to considerable modification as parental and social controls operate to eliminate the responses of overt attack. Instead, there is a tendency to encourage verbal forms of expression and the cultivation of substitute outlets. A great deal of our so-called "civilizing" of the emotions consists of this substitution of verbal for manual responses. Even when this process has proceeded rather far, however, one may still observe the clenched fist, tightened muscles, and other gestural responses. There is evidence which suggests that, even when the process of training has gone on to such an extent that the verbal expressions of emotion have been eliminated, there may be an unconscious, unrecognized gesture which reveals the emotional state to the observer. However, most individuals never completely suppress their verbal responses, but go through life venting their impulses of attack through "cutting" remarks!

Significance of These Movements.—Expressive movements may have *social significance, i.e.,* they may communicate to others one's emotional state. Such are the frown, the smile, the shrugged shoulder, the wave of the hand, and so on. Other expressive movements may be treated as insignificant and meaningless by observers, yet may have *autistic significance, i.e.,* they may be meaningful in terms of the experiences of this individual alone. Krout (1935) has spoken of the subject as "communicating with himself" when employing these apparently meaningless gestures. (From the viewpoint of psychic determinism, of course, there is no such thing as truly meaningless behavior.) Scratching one's head, tugging at the ear, thumb sucking, puffing up one's cheeks, blinking, queer bodily postures, apparently aimless movements of arms and legs, belching, and meaningless vocal noises are listed by Krout as examples of this type of reaction. His data show that such apparently meaningless gestures do in many cases have a great deal of significance for personality.

Individual Differences in Social Gestures.—Those gestures which are used in social communication are largely standardized for a particular culture. The observer of these movements thus is likely to be impressed by their uniformity and to neglect the extent to which they reveal the individuality of the subject. Individual differences appear quite markedly in such diverse activities as handwriting, drawing, walking, and inflection of voice. While graphologists and "character analysts" of various kind have exploited the possibilities of this expressive material for a long

time, the most thorough scientific investigation of such responses is the study by Allport and Vernon (1932). These investigators sought to confine themselves to those habitual movements in which individual differences in *manner* of performance might reveal persistent trends of personality:

"Every act seems to have its non-expressive as well as its expressive aspects. . . . In unlocking a door, for example, the task itself prescribes definite coordinated movements suited to the goal, but it allows also a certain play for individual style in executing the prescribed movements. There are peculiarities in the steadiness, pressure, precision or patience with which the task is executed. It is only these individual peculiarities that are properly called 'expressive.'" [1]

Individual Consistencies in Movement.—The purpose of Allport and Vernon in setting up their experiments, therefore, was to devise situations in which people would perform different habitual acts under conditions which permitted the measurement and comparison of individual differences in the manner of performance of these tasks. An obvious example is speed of movement. Is one person consistently fast, another consistently slow? If so, we are justified in speaking of some underlying personality characteristic which is expressed in this tempo of performance.

The experiments actually employed were too numerous to be described here. Suffice it to say that most of the measures employed were not from artificial, laboratory situations, but, as far as conditions of measurement permitted, were lifelike tasks. The subjects were asked to draw rectangles the size of dollar bills, to stroll about the room, to draw in a sandbox with the toe, to copy passages of prose, and to do other simple, ordinary tasks. In some cases the problem of measurement undoubtedly distorted the situation, as when the subject was asked to "shake hands" with a dynamometer! It is possible that the normal handshake was not elicited in many subjects.

Results of the Experiments.—Experimental measures were obtained during three sessions, each of 25 subjects being studied on a large number of tests at each session. The three sessions were separated by intervals of several weeks, thus eliminating as far as possible chance consistency due to mood and temporary physical conditions. An examination of the data reveals a high degree of consistency in the expressive movements studied. There is observable a tendency for temporary factors to increase the correlation of measures obtained at the same session (.75 and .76) over the correlation of measures obtained at differing sessions (.64 and .62).

[1] Allport and Vernon (1932), pp. 21-22. By permission of The Macmillan Company, publishers.

It is assumed that this increase is accounted for by the effect of mood, physical status, and other such related factors.

Allport and Vernon found that a person is likely to have very similar patterns of expressive movement even when completely different muscle groups are used: thus, hand drawing and foot drawing tend to agree, and gestures by the right hand and arm resemble those of the left side. These findings argue for an inner pattern, probably perceptual in character, which controls these expressive movements, regardless of the particular muscles employed.

Group Factors in Expressive Movements.—Another interesting phase of this work lay in the attempt to reduce the multiplicity of correlations to a few group factors or generalized tendencies in expressive movements. An attempt was made first to pick out several tests which had logical or psychological relationships, then eliminate or add other measures according as the intercorrelations for that test with the group first selected were high or low. In this trial-and-error way three tendencies were isolated, to which Allport and Vernon refer as "group factors."

Areal Group Factor.—Of the three "factors" isolated, the first to be described is named the areal group factor. It may be defined as a tendency on the part of some individuals to occupy a large amount of space in movement and for others to occupy very little. The tests which showed this characteristic most clearly were area of total writing, total area in drawing figures, and area of blackboard figures. Three tests which showed this factor to a moderate degree were slowness (reverse of speed) in drawing, area of foot-drawn squares, and overestimation of the size of an angle made by moving the arm. These measures have in common the tendency to "sprawl" over a certain area, hence the name for the factor.

It is interesting to note that some graphologists have claimed that this tendency to spread over area has significance in the diagnosis of such characteristics as ambition, pride, and imagination. The more scientific students of handwriting, however, are not willing to base interpretations of generalized traits on such single characteristics.

Centrifugal Factor.—A second factor reported is called centrifugal because several tests involved are based on movements to or from the body. Persons who are high on this tendency overestimate distances from the body, but underestimate distances toward it. Other tests showing this factor were amount of space taken up in arranging cubes according to size; underestimating weights (the subject pulled the weight toward the body, hence the movement is consistent with underestimating distance); and verbal speed (one might imaginatively compare this with pushing words outward from the body).

Younger subjects seemed to be more "centrifugal" than older ones. It is interesting to observe that Enke (1927) concluded, on the basis of a different series of experiments, that persons of the pyknic physical type, which is supposed to be associated with an emotional, excitable personality, are expansive and free in movement, whereas the contrasted (leptosome) type, which is said to be associated with the withdrawn, schizoid personality, showed hesitant, tense, inhibited movements. These findings seem to give confirmation to Allport and Vernon's observations on the areal and centrifugal factors.

Emphasis Factor.—Another group factor, which seems best named by calling attention to its function of emphasis, is revealed in the following measures: fewness of parallel lines (subject was merely told to draw parallel lines on paper), pressure while writing, overestimation of weights, finger pressure on stylus, tapping pressure, and ratings on voice intensity and on movement during speech. In this connection the authors call attention to the importance of psychological as well as statistical agreement between tests in the construction of composite measures. They say:

> The pressure variables alone do not intercorrelate sufficiently highly to give a statistically consistent aggregate. *Mere physical pressure or tension would seem to be significant only as part of a wider and more psychological tendency to make emphatic movements.*[2]

If the three "factors" identified by Allport and Vernon be considered merely as generalized habits of movement, in the one case sweeping and expansive movements from side to side; in the second, vigorous movements toward or away from the body; and in the third, emphatic movements (manifested mostly by strong pressure downward), the student will find them easier to comprehend. This view involves a certain amount of oversimplification, but may serve as a convenient device for getting the major characteristics of the three general tendencies.

Psychomotor Congruence: Case Studies.—Other authors might have stopped with these interesting contributions to our knowledge of the internal consistency of movements and the existence of generalized movement habits running through the specific test situations used. Allport and Vernon went further, in an attempt to investigate what they have labeled *congruence,* in opposition to the statistical *corresponce* of measures which they had already demonstrated. The findings of the correlation technique

[2] *Ibid.*, p. 115. Pascal (1942), however, reports that a measure of handwriting pressure, without the other variables used by Allport and Vernon to make up their "emphatic factor," correlates well with ratings of impulsiveness, energy, expressiveness, and dominance—all traits which might plausibly be related to an emphatic expressive pattern.

showed that persons scoring high on this test should score high on that; those scoring low on this should score low on that. What about the cases who scored high on the one and low on the other? These subjects were inconsistent according to the general trend as studied statistically; but Allport and Vernon felt that individual case studies might reveal that what appeared inconsistent was really perfectly congruent when viewed in the correct light.

An illustration is that of a man who ranked very high on the emphasis factor but was quite slow on reading and speaking. He is reported to be a business executive, forty-five years of age, very forceful and expansive. The contradictory results are explained as follows:

> Although aggressive and self-confident, the subject has developed caution, precision and the capacity for delay; when committing himself he must be certain. His records on our tests are congruent with a nature that is careful but decisive when in action. His reading and speaking are slow because his enunciation is exceptionally distinct and precise. The reduction in size of his writing, compared with his more automatic expansiveness of movement, seems to indicate the same quality.[8]

General Value of These Studies.—The significance of these studies of psychomotor congruence lies in the fact that they provide concrete evidence that the personality structure is organized at all levels; that the expressive aspect of habitual movements is a legitimate approach to the study of individuality. More especially, in the use of the case-study approach, they show the way for studies of the total personality in action, as well as in conscious thought; although the authors specifically eschew, in the introduction to their volume, any attempt to study the relationship between their measures of movement and the conscious or unconscious processes which might underlie them.

Inner Personality and Expressive Movement

The hypothesis of the unitary personality calls for identifiable relationships between the implicit traits of personality and patterns of expressive movement. While we are prepared, in view of the facts already developed about the breaking up of response patterns, to find some inconsistency between these levels of personality structure, we are justified in expecting some significant relationships. On the whole, the research data confirm this expectation.

Studies of Handwriting.—The study of handwriting as an index of the inner personality has varied from top to bottom of the scale of psy-

[8] *Ibid.*, p. 136.

chological respectability. Today it is on its way up. While professional graphologists are by no means so successful in diagnosis as they claim to be, they identify outstanding personality trends significantly more often than would be predicted by chance.

Handwriting investigations have taken the form of attempts to correlate specific features of script with separate traits of personality, and also attempts to interpret the script as a pattern in relation to the total personality. On the whole, the former of these has not been too successful. As was indicated above, Pascal (1942) found some statistically significant correlations between features of handwriting and ratings on specific personality traits. Other studies give conflicting results.

Studies which sought to match the total pattern of script with a free sketch of the personality as a whole have been more successful. Powers, whose study is published in the Allport-Vernon volume, used this method. Assisted by other psychologists, he drew up careful sketches of the outstanding personality traits of 10 adult men. Each of these copied, in spontaneous script, a passage of 40 words. Photostatic copies of the script were submitted to college students, faculty members, and professional graphologists.

The results indicate that even college students can match these two sets of material more often than would happen by chance. The faculty members excelled the undergraduates, and the graphologists were significantly superior to both. Since one correct matching could occur by chance, persons consistently averaging more than one correct choice were obviously finding some clues in the handwriting. The score of 2.41 matches, average for the 17 graphologists, would occur by chance only once in 8.5 times. Thus Powers confirms the view that handwriting provides significant clues to the total personality. This finding, as regards graphologists, is supported by Eysenck (1944), working with neurotics. Eysenck, however, finds that psychiatrists, without any practice in handwriting analysis, could not identify personality patterns with better than chance success.

One of the more startling studies of handwriting is that reported by Saudek (1929) on honesty. Saudek obtained samples of handwriting in the case of 73 different individuals employed by 18 different firms, and diagnosed "dishonesty" in 14 cases. No honest person (according to the employer) was classed as dishonest by Saudek, but one individual listed by him as honest was reported by the employer to be dishonest. Remembering the data on the lack of self-consistency on honesty tests reported in Chap. X, we must be amazed at Saudek's success.

The Lewinson Technique.—The most methodical formulation of criteria for evaluating personality from handwritings is that prepared by Thea Lewinson, based on the more intuitional system developed by Klages and Pulver. This technique calls for careful analysis of various aspects of the script, and for checking the indications in one sector against those in another. The handwriting is divided into upper, middle, and lower zones,[4] and each zone is studied separately. Spacing, mode of joining letters, and other factors are also considered.

The general approach here seems encouraging. Not many data are available, however, as to the success of the technique. Reliability figures have not been published. That some substantial validity has been achieved is indicated by the study of Munroe, Lewinson, and Wachner (1944), in which handwriting, free drawings, and the Rorschach were used as independent bases for personality sketches. These sketches agreed closely with each other and also with interpretations prepared by faculty members who had worked closely with the girls involved.

Studies of Drawings.—It would seem probable that, if handwriting were a clue to inner personality, spontaneous drawings would be equally valuable. This thesis has been developed by Waehner (1946) in an elaborate set of criteria for the interpretation of free drawings. The reliability of this technique is uncertain, but some validity is reported in the study mentioned, as well as in the publication by Munroe, Lewinson, and Waehner (1944).

Spontaneous drawings, almost at the level of "doodling," drawings made absent-mindedly while talking, may also have significance for emotional complexes. Erickson and Kubie (1938) report an intensive study of a girl with a severe emotional conflict which had been repressed. As a starting point for locating the nature of the repressed material, the psychiatrist chose to employ some curious but apparently meaningless symbols which the girl had idly scribbled on a pad of paper while talking to him. Ultimately it was shown that each symbol had a definite relationship to a factor in her confused personal problem. While the use of the drawings as such may not have been essential to the diagnosis and cure of this conflict, they were decidedly helpful.

Matching Voice and Personality.—Since we have stressed the importance of the emotions as basic materials for the evolution of personality structure, we should expect the voice, certainly the best single medium of emotional expression, to be an excellent index of personality. The re-

[4] Upward-projecting letters, such as "b," have a middle and an upper zone; downward-projecting letters, such as "g," have a middle and a lower zone. Letters without projections, such as "a," fall within the middle zone.

sults generally indicate that, at least for the lay observer, judgments of personality from voice are easier than judgments based on handwriting, drawings, and other overt manifestations.

With regard to the validity of these judgments, the evidence, which is not entirely clear, is confused by our familiar difficulty of lacking an agreed criterion of validity. Taylor (1934) recorded various voices and presented them to the judges without identification. On a list of adjectives the judge checked those characteristics which he felt applied to the speaker. Considerable social agreement appeared; *i.e.*, the judges manifested general uniformity in their choice of descriptive terms. This may, however, be indicative only of the existence of a *social stereotype*—a common belief that a given voice reflects a certain personality. The consensus of Taylor's judges, for example, did *not* agree with the self-judgments of the individuals whose voices were recorded; but we do not, of course, know the self-judgments to have been completely valid.

Eisenberg, who has done rather extensive work in the field of expressive movements, is inclined to emphasize the importance of stereotypes and an *assumption* of unity in the minds of the judges rather than a real penetration to the inner characteristics of the subjects. He writes:

"A comparison of judgments on handwriting, gait and voice indicates that judgments are organized on the basis of a general attitude of acceptance of dominance and rejection of nondominance *with a concomitant ascription of desirable qualities to the dominant individual* and undesirable qualities to the nondominant individual." [5]

Keeping in mind the possibilities of the halo effect and the projection of the judge's beliefs onto the people whom he is observing, we must recognize the possibility that Eisenberg is right. In some of the studies cited above, however, sufficient precautions seem to have been taken against these errors. We conclude that under favorable circumstances expressive movements truly reveal inner personality trends.[6]

The Problem of Stuttering.—In connection with the general topic of voice and personality, we may well mention briefly the problems of stutter-

[5] Eisenberg and Zalowitz (1938), p. 631. Reprinted by permission of American Psychological Association, publishers. Italics added.

[6] A few investigators have found marked differences in expressive movements among subjects grouped according to measured personality traits. Allport and Cantril (1934) and Fay and Middleton (1939) found that judgments based on voice agreed with results of questionnaire tests of personality, and Wolff (1943) presents substantial evidence favoring the view that objective records of expressive movements give valid clues to inner personality trends. Such studies seem to deny Eisenberg's conclusion, at least in any sweeping form.

ing and stammering. The specialists in this field are not in entire agreement, but majority opinion seems to favor the view that such speech difficulties are generally reflections of maladjustments in the total personality, not merely a matter of improper breathing or tongue movements.

The view of the etiology of stuttering and stammering which seems most widely accepted, and which conforms closely with the interpretation of personality development presented in this volume, may be summarized as follows. An intensely emotional incident occurs, during which the child's attention is focused on his speech behavior; perhaps he is being compelled to confess some misdeed or is otherwise suffering from anxiety. The glandular and muscular effects of strong feelings and emotions result in blocking, confusion, muscular incoordination, and awkward speech. On later occasions the individual encounters partially equivalent stimuli and transfers to them the same clumsy speech response. Since stuttering and stammering also expose the person to ridicule and anxiety, a vicious circle may be set up which fairly quickly establishes a habit of poor vocalization. Several case histories which seem to confirm this view are cited by Krout (1936).

Krugman (1946) reports on a Rorschach study of 50 stuttering children, from which he concludes that they are, on the average, characterized by more emotional maladjustment, more rigidity, and greater anxiety than normal children of the same age levels. It is not, of course, definitely proved that the speech difficulty results from such personal maladjustment; stuttering puts the child into emotion-arousing situations and thus may cause him to manifest more emotional instability. We are, however, inclined to accept the interpretation that the more extensive personal deviations are causal and the speech problem, secondary. Most of the work on therapy seems to harmonize with this view; mental hygiene is usually a prerequisite to a straightforward attack on the vocal peculiarities.

"Meaningless" Movements and Personality

Handwriting, drawing, speech, and the other functions heretofore considered have in common an obvious purposefulness, although this is not necessarily involved in the way that they operate to give clues to the inner personality. The activities studied are more or less socially standardized and are essential to a normal adaptation to the environment; the personal significance is found in individual differences in the manner of executing these acts. Two individuals may use the same words in speaking; the manner adopted reflects differences in inner personality.

In addition to the forms of expressive movement included in these categories, we have various investigations of movements which are not ap-

parently purposeful or culturally patterned. Tics, nervous tremors, general muscular tension, and various kinds of "meaningless" gestures may be grouped in this manner. These movements also have significance for personality.

Emotional Disorganization of Voluntary Movement.—Useful as an introduction to this topic, and perhaps throwing light backward upon the preceding section, is Luria's work on the disorganization of voluntary movement by strong emotions. As we have stressed repeatedly, emotions in their original state present a unified pattern of perception, feeling, visceral response, and overt movement. While this pattern is sometimes broken up by repression or training, the feeling-movement connection is very likely to be retained. Luria devised a method for studying this linkage.

The subject is asked to maintain a slight pressure on two rubber bulbs, one in each hand. He is given a word-association test; as he speaks his response word, he is to press the bulb in his right hand. The presence of strong emotion characteristically disorganizes the pattern of movement in the right hand and often the uniformity of tension in the left hand, as well (see Fig. 35). This phenomenon is familiar to everyone as the tremor and incoordination accompanying strong emotion. Luria's technique simply makes it conveniently accessible for study.

Luria's original volume presents data of a highly convincing character on the validity of his method, using material rarely available to investigators in Western nations—*e.g.*, the record made by a murderer less than 24 hours after the crime. In general, the results of American work on the technique confirm the validity of the method, but indicate that it is not nearly so diagnostic of mild emotional upsets as Luria would predict.

More interest attaches to the extent to which this disorganization is a persistent feature of a personality, and to its relation to inner personal patterns. Luria asserts that he found two "types" of personalities—those who were not easily upset, whose movement patterns were not easily disorganized, whom he called "reactive-stable," and a contrasted, easily disorganized group whom he called "reactive-labile." The work of American investigators indicates that there are all degrees of stability, from the extremely stable individual whose record is given in Fig. 35*A* to the very unstable person of Fig. 35*B*.

Disorganization of Movement in Abnormal Personalities.—While we have found no published data on the use of the Luria technique with abnormal cases, rather similar materials have been used. McGrath (1935) gave his subjects two tests of motor control (dotting test and stabilimeter), as well as verbal tests of emotional stability. He found, as have

others, that on the *verbal* tests his psychotics (extreme personality breakdown) sometimes scored as well as the normals; the neurotics made very unfavorable scores. On the *motor* tests, however, the order of competence was, uniformly, normals, neurotics, and psychotics. This suggests that the psychotics may have repressed verbal awareness of their troubles and responded to the questionnaire tests as if they were well adjusted.

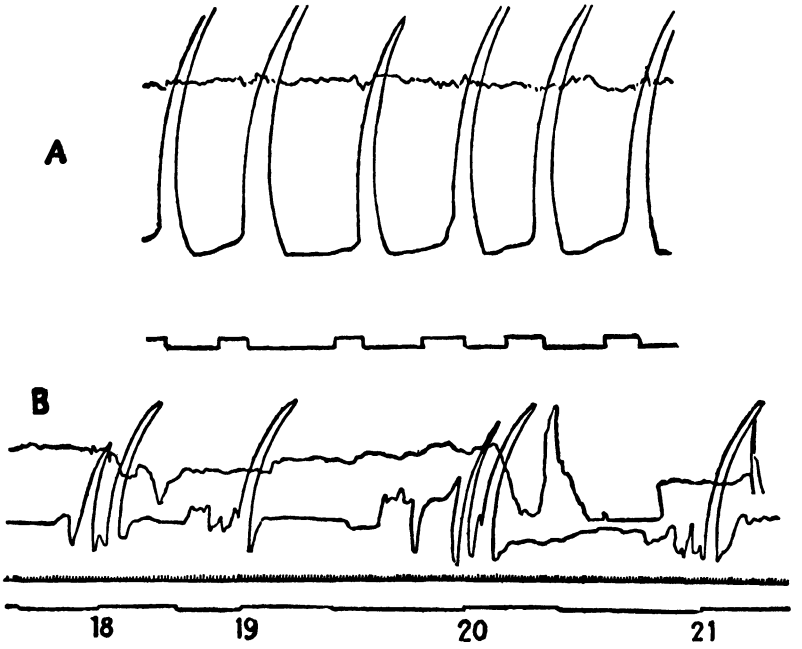


FIG. 35.—Luria's "reactive-stable" and "reactive-labile" types. *A*, record of a stable subject. Left-hand record uniform; right hand shows smooth reactions to stimulus words. *B*, record of a labile subject. Left hand fluctuates in pressure, right hand makes uncalled-for reactions of uneven strength. (*From Luria*, 1932.)

Wulfeck (1941) has corroborated McGrath's findings with a new set of motor tests. The psychotics show more muscular tension, poorer control of tension, and in general more motor disturbance than do neurotics and control normals. Thus it appears that *major* disturbances of personality may be better revealed by tests of overt behavior than by purely verbal means, the latter being more valid in the case of *minor* breakdowns.

Myokinetic Psychodiagnosis.—Starting from the known work on handwriting, the Luria method, and the Allport-Vernon study on expressive movements, Mira (1940) has developed a technique of great potential significance, which he calls myokinetic psychodiagnosis. It is based on

the assumption that certain inner states will reveal themselves in unconscious muscular thrusts in a given direction.

The subject sits before a drawing board, blindfolded or shut off by a screen so that he cannot watch his hands. He must keep his wrist off the board, thus giving the arm and shoulder muscles a chance to determine the results. He draws 10 lines, which are to be of a given length, with each hand, in the following ways: from left to right, from right to left, outward from the body, and inward toward the body; then, with the board in a vertical plane, upwards and downwards.

The analysis of results involves finding the center of the first line drawn, and erecting a perpendicular which cuts across the succeeding nine lines. The centers of these lines are located, and distance from the intersection of the perpendicular is measured. Some subjects will keep "center of gravity" pretty close to this line; others show a steady drift above or below. Such a drift indicates a persistent muscular tension in the direction of shift.

On the basis of abnormal cases (manics, depressives, suicidal, and paranoid patterns), Mira believes he can identify certain deep tendencies in the personality. For instance, a marked drift *away* from the body, in the case of lines drawn to and from the body, was associated with aggressive attitudes toward others, while an *inward* drift was associated with self-directed aggression and suicidal trends. Subjects who, when drawing in the vertical plane, moved the center of gravity upward, were pretty consistently found to be elated, manic cases; those whose shift was downward were characteristically depressed.

Autistic Gestures

The motor disturbances which are revealed by formal tests, as in the studies of McGrath, Wulfeck, Luria, and Mira, may also appear in a more patterned form as nervous mannerisms, tics, and unconscious gestures. Particularly among children, these motor expressions of inner tension cause considerable concern to parents.

Olson (1929) has made a careful study of these nervous gestures. Using the short-sample observation technique, he has proved that children are highly consistent, both as to specific gestures and as to total nervous movement. His findings also confirm the view that these motor expressions are part of the total emotional pattern (visceral, motor, verbal) which have become fixated and exaggerated; often enough, the verbal aspect has been repressed, so that the child either is unaware of making the gesture or is unable to explain why he makes it.

Krout's Study of Autistic Gestures.—The origin of the mannerisms studied by Olson seems best revealed by the work of Krout (1935) on "autistic gestures," or gestures which have only self-reference. He has

not only made extensive observations on kinds of gestures and their occurrence in specific individuals, but has also offered some shrewd suggestions as to the interpretation of these phenomena.

Krout accepts the view that external threats or inner anxiety may prevent the appearance of a total pattern of emotional response. The gesture may then be either a fraction of the total response, which escaped inhibition, or it may be a symbol, a response equivalent, for that which was suppressed. He proposes that the typical behavioral sequence should be viewed as follows: "(1) extraorganic stimulation, (2) inhibited overt response to extraorganic situation, (3) intraorganic stimulation, and finally (4) explicit response that is not evidently directed to the extraorganic situation from which the original stimulation had derived." [7]

This formulation seems satisfactory with the one exception that the first stage may be intraorganic as well as extraorganic. A good illustration is that of the case of hand biting cited in Chap. IV. The original stimulus here is internal—a sex tension—and the inhibiting factor is the anxiety relating to masturbation. The final autistic gesture was, of course, hand biting, and this can be interpreted either as a device for keeping the hand occupied or as an unconscious self-punishment for forbidden actions.

To Krout's monograph is appended a list of 340 observed gestures, from "adjusting glasses" to "yawning." Many of these activities are clearly habitual, or vestigial, habits, relating to irritative stimuli. Adjusting glasses, for instance, undoubtedly has its origin in the first experiences with these objects, when they are almost invariably uncomfortable. Later, however, it appears that adjusting one's glasses may be an abbreviated way of saying "You annoy me" or "Let's take a look at this." Yawning originally is a response to a condition of sleepiness, but in later life it may be a way of saying "You make me sleepy."

The significance of such acts may perhaps better be illustrated by one of Krout's examples: "Subvocally, I recognize the desire, while at the dinner table, of getting up and going away from it just after eating. Nevertheless, I suppress this recognized desire, and remain seated. Immediately afterwards, without recognizing it right away, I start to bring my feet up and down on the floor" (p. 100). Here it is obvious that the movement is a substitute for the inhibited act, namely, that of walking away from the table.

Hypnotic Reproduction of Gestures.—A further check on his view that autistic gestures are determined by definite stimuli and not by chance factors is afforded by Krout's observations on hypnotic reproduction of

[7] Krout (1935), p. 18. Reprinted by permission.

gestures. In the case of three subjects, their gestures were carefully recorded during an interview with the experimenter, without the subject's knowledge, of course. They were then hypnotized and were asked to reproduce the gesture that they had made, during the conversation, to each of the stimulus words. A list of 33 words and responses is given in detail for one subject; the accuracy of reproduction is almost 100 per cent. The experimenter states that this record was no better than the other two. To explain this by saying that the subject remembered what response he had given is to strain our faith in the ability of persons to remember what seem at best to be incidental responses.

The significance of this phase of the study lies in the demonstration that autistic gestures are not really disconnected from the mental life of the subject and, under appropriate conditions of abstraction (dissociation), may be reproduced, even though the subject was not aware of making them on the previous occasion. If they were chance responses, they could not possibly be reproduced under such conditions.

Movements as Symbols

What is the common denominator of these studies of overt movement? In what way can these data be related rationally to our previous findings on the inner aspect of personality?

Almost all of these different lines of evidence converge intelligibly upon a conception of movement as a symbolic function. This is clearest in the area of autistic gestures, where fragments of a previous action pattern now represent mentally the entire pattern. It is also, with a little study, apparent in many of the other investigations.

The work of Mira, for example, which ties in so well with that of Allport and Vernon and with some of the early research on motor concomitants of feelings, is intelligible only if we think of these muscular reactions as symbols. There is no physiological reason why elation should correlate with an upward drift of line drawing, or depression with a downward displacement. Linguistically, on the other hand, almost all people associate elation with being "up, on top of the world," and depression with being "down." Mira's data on the outward thrust of the extraverted aggressive and the inward pull of the suicidal cases must also be understood symbolically. Movements are governed by *perceptual patterns.* If the gesture is conceived as symbolizing a percept of the person in relation to his environment, these findings fall into their proper place as evidence of an inner unity of personality.

The same conception is fruitful in understanding the expressive data on

handwriting and voice. Most of us have mental images of the voice appropriate to a certain kind of personality, as is evidenced by the repeated occurrence of stereotypes in these studies. It is certainly plausible that a person who *pictures himself* as dominant and aggressive, and who is sensitive to the stereotyped notion of the vocal mannerisms associated with such a personality, *will develop* such speech habits. The same would hold for some aspects of handwriting. Handwriting and voice may also have symbolic qualities of the sort described in the preceding paragraph.

We are left, then, only with such studies as those of Luria, McGrath, and Wulfeck, in which attention is centered on disorganization rather than on the form of the overt movement. The data in this group suggest a simple relationship to the motor effects of strong emotions: stimulation of the autonomic nervous system and endocrines, possible conflict and indecision about proper patterns of action. In the case of personalities with many strong emotions—particularly those who lack well-developed outlets for emotional expression—these manifestations of disorganization would appear in such degree as to be generalized characteristics. That innate physiological control mechanisms may be defective in such individuals is a promising alternative hypothesis, but we have few facts on it at present.

Summary

The organism is a psychophysiological unit, and happenings at the level of gesture and expressive movement may be expected to reflect inner patterns of perception and feeling. This hypothesis is confirmed by studies of handwriting, drawing, voice, motor coordination, and nervous movements.

The unifying concept which runs through most of these studies is that of movement as symbol. The movement is often a fragment of a previous pattern, and now stands for the total pattern in the individual's mind. In some cases, also, the overt movement may be a reflection of the individual's conception of how he ought to act, if he is to live up to his Self-image.

The studies which cannot be understood in terms of this formulation relate chiefly to the disorganization of patterned movement by strong emotion. Reference to the physiological consequences of such emotions seems adequate to explain disorganization. The fact that some personalities show a marked excess of such incoordination, while others show very little, may be ascribed either to innate physiological weakness of control mechanisms or to an excess of strong emotions with inadequate outlets in purposive action.

Suggestions for Reading

Werner Wolff's *Expressive Movements and Personality* is a very stimulating book in this field. It is perhaps a little overenthusiastic about the possibilities of such approaches to the inner personality. Lewinson and Zubin's *Handwriting Analysis* is interesting but highly technical. Allport and Vernon's *Studies in Expressive Movement* gives an illuminating discussion of the general problem, as well as a more detailed report of their experiments. Eysenck's *Dimensions of Personality* reports valuable recent work on problems relevant to the material of this chapter.

CHAPTER XIII

TYPE THEORIES OF PERSONALITY

Popular psychology, in addition to using the terminology of mechanisms and traits which has been outlined in the preceding chapters, also presents many examples of description of personality in terms of types. This approach, which has the appeal of being easy and obvious, has been used by writers on personality for thousands of years. The classic division of mankind into four temperamental types—choleric, phlegmatic, sanguine, and melancholic—dates back to Hippocrates and is, of course, still employed by some popular writers today.

Type descriptions are characterized by the technique of picking some outstanding feature of an individual and using that as a label for the totality. Thus we read of the "hard-boiled" type, the "constricted" type, and so on. Not infrequently this requires that we ignore many characteristics of the person which have no particular relation to this arbitrary label.

Identification by type labels may not encounter serious difficulties in ordinary conversation. In speaking of a small group of friends, we may clearly single out a particular person by calling him the "eager-beaver" type. In a large group, however, we are likely to find all gradations, from very energetic and industrious to very lazy and irresponsible. The same point can be illustrated by reference to physical features. In a small group it may be sufficient identification to speak of a man as "the short one"; but in a larger group not simply short and tall types are represented, but a continuous distribution from one extreme to the other.

The shift from type to trait conceptions has generally paralleled the progress of psychology as science. Early discussions of feeble-mindedness, for example, assumed that there was a sharp line of cleavage between feeble-minded and normal children. Later studies showed that there was a continuous distribution from feeble-mindedness to superior mental ability.

Different Conceptions of Types.—There are at least three different conceptions of psychological types, as they appear in the writings of various authors. These have been diagrammed in Fig. 36. Some writers still

seem to think of types as pigeonholes, mutually exclusive classifications with clear dividing lines, into which people can be segregated (Fig. 36*A*). Others use the type concept as more or less equivalent to a trait, contrasting types defining the end of a continuum between which people are distributed according to the normal curve (Fig. 36*B*). A third usage proposes that true types differ from traits, in that the distribution is multimodal,[1] with people clustering at certain points which approximate a pure type (Fig. 36*C*).

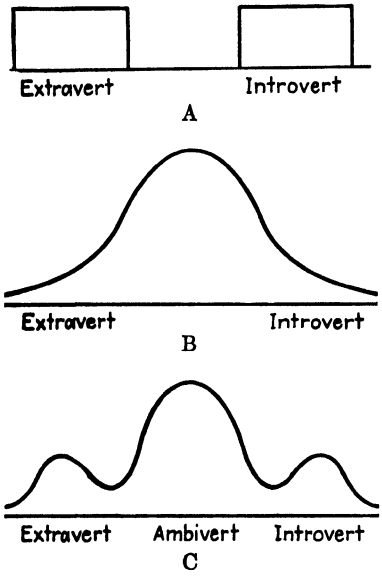


FIG. 36.—Three conceptions of the type theory.

This difference in usage seems to be related to a more fundamental difference in the real meaning of the term "type." In the sense in which most psychologists find it unobjectionable, "type" refers to a classification of specific acts or reaction patterns. Thus all reactions to conflict which are evasive in character might be grouped as an "evasive" type. It is, however, unfortunately easy to make an imperceptible transition from this classification of *reactions* to a classification of the *people* who manifest these reactions; and with this usage many experts find themselves in disagreement.

Chein (1943) has illustrated this point with a discussion of Jung's introversion-extraversion dichotomy. Jung writes of the introvert as a person whose attention is turned inward upon himself; who evaluates experiences in terms of subjective standards; who is essentially the man of thought, rather than the man of action. Chein calls attention to the fact that the environment has a great deal to do with such reaction patterns. In a safe, secure situation, the individual might behave in an outgoing, extraverted manner; under conditions of danger, the same person might manifest introvertive trends. Thus we might find it useful to speak

[1] Multimodal distributions of raw scores on psychological functions seem to be rare. Certain studies, notably Eysenck (1941), have produced bimodal or trimodal distributions. Often these are achieved by factoring out a common characteristic and scoring individuals on a bipolar second or third factor. Statistically this procedure seems perfectly legitimate.

of introversion and extraversion as *ways of behaving;* but we should have to recognize that it is usually unsafe to label any *person* as consistently an introvert or an extravert. Even if a substantial majority of an individual's reactions conform to a particular type, one might doubt whether it would be proper to pin the type label onto the individual, since he would differ only by degrees from those who do not conform to the pattern.

Types as Intra-individual Patterns.—For a long time it appeared that the controversy between trait theory and type theory had reached a hopeless impasse. The trait psychologists insisted on the normal distribution of personal characteristics; whereas, type psychologists insisted that they found clustering of certain tendencies in patterns which paid no attention to the normal curve.

A very substantial advance was made in this controversy when a British psychologist, William Stephenson, shifted the level of argument and thereby made reconciliation possible. He noted that type theories are primarily concerned with the *relative strengths within the individual* of his various traits, whereas trait theory has been oriented more to comparisons on a single trait within a population. Thus Stephenson found it possible for two individuals to have the same standing in their group, as regards some trait (*e.g.*, introverted thinking), yet to differ in type (this characteristic might be outstanding in one, subordinate in the other). Conversely, two persons might have the same type pattern (traits in the same general relationship of prominence and subordination) while differing decidedly in the absolute strengths of all their traits as compared with a normative population (*cf.* the duration and intensity of mood swings in normal cycloid and manic-depressive personalities).

In the same article (Stephenson, 1935) a technique is offered for the objective determination of types. It involves measuring the relative strengths of specified traits of various persons and then correlating each person with a "standard" person, chosen as a true representative of the type. The continued application of this method in type research should end many arguments over the reality of types.

The attractive feature of type theories is their disarming simplicity, the ease with which they solve the problems of arranging the overwhelming diversity of unique personalities to a mathematically precise pattern. The disturbing aspect lies in the fact that most of these theories destroy the essence of the individual personality by ignoring all features except those emphasized in the type description. This point will be clearer if we consider briefly a few of the extant theories.

Types Based on Mental Functions

Type theories have been erected on a variety of foundations. For the sake of order, we have selected three groups for presentation here: those which emphasize some aspect of mental functioning, sensory, emotional, or organizational; those which involve some physiological basis; and those which depend on experience patterns. While it is impossible to cover all of these or to give any of them an extensive treatment, we shall attempt to present a fair picture of a few samples.

Type theorists have commonly started with some specific experiment or problem in which they were interested, and have used it as a universal standard for personality classification. Thus Külpe found that his subjects in an experiment on perception fell mostly into two classes: those whose reports were influenced most by the color of the stimulus and those whose reports were determined by shape or form. He spoke of these individuals as representing the "material" and the "formal" types, and these groups have been studied by followers of Külpe to locate differences in other psychological functions correlated with the color-form distinction. Similarly, the brothers Jaensch (1930) began with an investigation of eidetic imagery and evolved a complex theory of personality types.

There are several theories which focus on the direction of attention and interest, inward upon the Self or outward upon the environment, among them those of Jung, Stern, James, and Rorschach.[2] As an example we shall take that which has been most widely discussed—Jung's theory of introversion-extraversion. According to Jung, the most fundamental distinction in personalities is that of orientation toward objective reality or toward subjective determinants:

"When the orientation to the object and to objective facts is so predominant that the most frequent and essential decisions and actions are determined, not by subjective values but by objective relations, one speaks of an extraverted attitude. When this is habitual, one speaks of an extraverted type. If a man so thinks, feels and acts, in a word, so *lives*, as to correspond *directly* with objective conditions and their claims, whether in a good sense or ill, he is extraverted.

"His entire consciousness looks outwards to the world, because the important and decisive determination always comes to him from without. But it comes to him from without, only because that is where he expects it. . . . *Interest* and *attention* follow objective happenings, and primarily, those of the immediate environment. . . .

"Introverted consciousness doubtless views the external conditions, but it

[2] A good summary of a number of type theories will be found in MacKinnon's chapter in Hunt, *Personality and the Behavior Disorders;* also, in Murphy and Jensen, *Approaches to Personality.*

selects the subjective determinants as the decisive ones. The type is guided, therefore, by that factor of perception and cognition which represents the receiving subjective disposition to the sense stimulus. . . . Whereas the extraverted type refers pre-eminently to that which reaches him from the object, the introvert principally relies upon that which the outer impression constellates in the subject." [3]

It will be noted that, in this quotation at least, Jung considers his "type" introverts and extraverts to be only the extremes of a normal distribution. Introversion and extraversion are types of reaction, and it is only when *one of these is habitual—i.e.,* consistently manifest—that he speaks of the personality type. It is, however, difficult to feel sure that Jung rejects the view of types as means of classifying all individuals. He speaks of the difficulty each person has in identifying his own type, and also of the importance of remembering that there are subtypes as well as the two major types.

These subtypes are erected upon a combination of the basic introvert-extravert dichotomy with the four psychological functions of thinking, feeling, sensation, and intuition; there are thus eight subtypes. Each shows a predominance of one of the four functions, oriented inwardly (introvert) or outwardly (extravert). In describing these types, Jung alternates between a form of description based on people and a form of description based on mental processes.

Utility of Jung's Theory.—There can be no doubt that Jung made an important contribution to personality theory by proposing the introversion-extraversion dichotomy. It has stimulated a considerable amount of research and has raised questions for many later psychologists to puzzle over. It is also obvious that, either in clinical study or in daily observation of people, analyzing behavior in terms of the introvert-extravert dimension often proves helpful.

On the other hand, the results of research seem overwhelmingly against the notion that we can classify everyone in the population as an extravert or an introvert, even if we attempt to use the more complex subtype system. Human nature is too diverse, individuals vary by too slight degrees, and the unique qualities of each person are too important to make this type classification generally useful. It arbitrarily ignores so many other variables that it is unrealistic as a means of classifying human beings. In a few cases we shall note that a person seems to fit closely Jung's typological description; and in such instances, having this standard

[3] From Jung (1923), pp. 417, 472. Reprinted by permission of Harcourt, Brace and Company, Inc., publishers.

picture in mind is of value. Most of the time it will be better to think of personalities as varying along a normal distribution from extreme introversion to extreme extraversion, with the majority falling in the central zone.

Types Related to Physical Characteristics

Even the Greeks attempted to evolve classifications based upon physical appearance which would also correspond to distinctions in personality. Aristotle is said to have written a treatise on physiognomy (predicting personality pattern from facial appearance) and Hippocrates tried to connect temperamental types with an excess of some bodily fluid. Today physiognomy is accepted only by charlatans, but there is a widespread feeling among psychologists that the over-all physical pattern has some ill-defined relationship to personality.

Kretschmer.—As with other problems in personality, a common starting point has been the abnormal individual. The best of the physical typologies, that of Kretschmer, began as a study of two extreme mental disorders, schizophrenia and manic-depressive psychosis. From these he developed the idea of two normal temperamental types, the schizoid and the cycloid, respectively. The schizoid is characterized as unsociable, quiet, serious, reserved, and prone to dissociation (clearly somewhat related to Jung's introverted pattern). The cycloid is described as sociable, good-natured, humorous, impulsive, and prone to marked variations of mood (*cf.* Jung's extraverted attitude). Kretschmer believed that a normal cycloid would, if he broke down, develop manic-depressive psychosis, while the normal schizoid would develop schizophrenia.

In working on this problem, he became impressed with the correspondence between physical and temperamental type. His cycloids and manic-depressives, he found, were mostly of the "pyknic" build—relatively broad trunk, short arms and legs, inclined to put on weight. His schizoids were mostly narrow and elongated, with long extremities (leptosomes), or athletic (somewhat intermediate between pyknic and leptosome).

As regards the relations existing between these physical types and personality characteristics, Kretschmer (1931) has the following to say:

"On the basis of actual research, it appears that ninety-five percent of pyknics are of predominantly cyclothyme temperament, and that seventy percent of leptosomes are schizothymes. The moods of the cyclothyme lie between the extremes of hilarity and sorrowful depression. Hence the cyclothymes can be divided into three further temperaments, according to the section of this scale about which the mood hovers. These three temperaments we call the hypomanic (very

cheerful and lively), the syntonic (realistic, practical and humorous) and the soft-melancholic (sad-relaxed). To all three groups of cyclothymes, interest in the external world, open-hearted sociability and good nature are common features. In contrast to this, the schizothyme temperaments have common inclination to autism, that is, keeping themselves to themselves, to shy withdrawal from their fellowmen, and to humorless seriousness. Their range of temperaments is not between gay and melancholy states, but between hypersensitiveness and dull, phlegmatic conditions. From this range results the three-fold division of temperaments: hyperesthetic, that is, highly strung and with a sensitive inner life; then the middle position occupied by cool active men of decision, inclined to consistency in thought and general systematization; and finally the anaesthetic temperament, expressed in the distorted, eccentric, the dull and indolent waster." [4]

Now it seems that in this very process of describing his psychological "types," Kretschmer has gotten away from any typological basis. Notice that his cyclothymic type no longer consists of a *necessary* organization of characteristics, since there are at least three different kinds of cyclothymic types! As these types seem to take on quantitative characteristics, we find ourselves slipping back into the *trait* concept as an integration of responses which may be distributed along a quantitative scale according to the *number* of such responses made by the individual.

The work of Kretschmer has attracted a great deal of attention and many investigations have sought to verify or disprove his claims. At present the preponderance of evidence seems to favor his interpretation as regards psychotics. Studies of normal individuals, however, have failed to confirm Kretschmer's predictions.

Sheldon [see Hunt (1944)] has summarized the status of the Kretschmer typology adequately as follows:

"(1) The descriptions of the physical types and the criteria for their recognition were found to be confusing and unsatisfactory. In fact, it was soon made evident that types as such do not exist. (2) Yet in a number of instances where investigators sidestepped this stumbling block, accepting what may possibly be called *the spirit rather than the letter* of Kretschmer's claims, and proceeding to grade physiques according to their manifest general tendencies—in a considerable number of such instances significant positive correlations were found between physical tendency and psychotic tendency. (3) However, no American students, using Kretschmer's technique as he presented it, have been able to demonstrate significant relationships between physical type and temperamental or normal psychological characteristics." [5]

[4] From Kretschmer (1931), p. 53. Reprinted by permission of Harcourt, Brace and Company, Inc., publishers.

[5] Sheldon, in Hunt (1944), p. 533. Reprinted by permission of The Ronald Press Company, publishers.

Sheldon's Somatotypes.—Influenced by Kretschmer's ideas, but finding the theoretical approach inadequate, Sheldon evolved a new conception, which has much in common with Stephenson's view of personality types as already stated. Sheldon (1940, 1942) proposed that physical type is a matter of relationships within the individual physique, tendencies toward over- or underdevelopment of certain physical components. These three components are designated endomorphy, mesomorphy, and ectomorphy.

When *endomorphy* predominates in the individual, he shows massive and highly developed viscera, while his somatic structures (bone, muscle, etc.) are relatively weak and undeveloped. *Mesomorphy,* when predominant, means that the structure is hard, firm, upright, and relatively strong and tough. This is the athletic-appearing individual. *Ectomorphy* is associated with long, slender, poorly muscled extremities, with limited development either of viscera or of somatic structures.

Sheldon has developed an elaborate system for determining *somatotypes* in terms of the relative predominance of these three components. He considers that *in the normal population there is a normal distribution* of endomorphy, mesomorphy, and ectomorphy;[6] but that certain combinations of these characteristics may appropriately be called somatotypes. Thus a 7-1-1 would be an extreme endomorph with negligible development of mesomorphic or ectomorphic trends; a 4-4-4 would be a person in whom no component seemed better developed than the others.

Parallel to the three physical components he finds three temperamental components—viscerotonia, somatotonia, and cerebrotonia. Extreme *viscerotonia* is characterized by love of comfort, gluttony, sociability, and affection. *Somatotonia,* when predominant, indicates a craving for muscular activity and vigorous self-assertiveness. Generally it is associated with a lust for power, a certain callous ruthlessness, and a love of risk and chance. *Cerebrotonia,* in extreme form, connotes excessive restraint, inhibition, and shrinking from social contact. There is likely to be repression of somatic and visceral expressiveness.

Sheldon reports amazingly high correlations between his somatotypes and temperamental components: endomorphy with viscerotonia, .79; mesomorphy with somatotonia, .82; and ectomorphy with cerebrotonia, .83. However, in accordance with his general orientation, which is essentially typological, he prefers to stress the identifying characteristics of each somatotype (*e.g.,* 1-3-6) in terms of its corresponding temperamental

[6] Thus Sheldon avoids the conflict with measurement studies which show normal distributions. This device is the same as that adopted by Stephenson.

pattern. While the somatotype and the temperamental type do not always agree perfectly, the instances of any reversal of order of dominance in the three components are rare.[7]

Critique of Sheldon's Theory.—On the whole, Sheldon has been sufficiently guarded in his presentation that no devastating criticisms of his view can be presented. He has not asserted that his somatotypes and temperamental types give a complete picture of personality, nor has he claimed that the physical type imposed rigid boundaries upon temperament. He concedes that the manifestations of a temperamental component can be modified, although apparently holding that it is never basically changed. Many psychologists would reject even this degree of fatalism.

Sheldon's work is a great improvement over the typologies of Kretschmer, Jung, and Jaensch; his basic approach is apparently theoretically sound. He accepts the fact of normal distribution of physical and psychological characteristics, and seeks type distinctions only in the relative dominance of components. He concedes that the number of personality traits related to physique is probably limited, and is willing to take an empirical approach to determining these traits. His typology is, therefore, not in conflict with the body of material which has been accumulated by students of personality, some of which has been summarized in this volume.

Perhaps greatest doubt is felt at present with regard to the reported correlations between physique and temperament. All of the temperamental traits are measured by ratings, and all of these ratings, so far, have been made by people who knew exceedingly well the basic scheme of somatotypes, as well as the defining traits of the three temperamental components. There is, thus, a virtually unlimited opportunity for subjective contamination of the temperamental ratings. It is important that persons impartial about or frankly skeptical of the Sheldon theory repeat the basic study. For the present, it seems desirable to evaluate the somatotype approach as promising, but incompletely validated.

[7] Sheldon emphasizes this matter of the relative importance of the three components, as is natural in a basically typological theory. A man who is a 2-4-6 somatically has a physique which is chiefly ectomorphic, mildly mesomorphic, weakly endomorphic. If his temperamental rating came out 1-3-5, the relative order of traits would agree perfectly with the somatotype, although the strength would be less than predicted from the physical data. A reversal would occur if the temperament index were, say, 3-1-5. These reversals, Sheldon reports, are uncommon.

Typologies Based on Experience Patterns

Type theory has been notably favorable to an exaggerated emphasis on heredity, even when no explicit assumptions are made regarding the role of environment. With the conception of type as a coherent, tightly organized personality structure, with closely interdependent systems, there would naturally be associated an emphasis on the unchanging character of this organization. Following this argument backward in time, we inevitably arrive at a theory of hereditary determination.

A few writers have, however, propounded type theories which stressed organizations crystallized by experience and henceforward changeable only by major outside intervention, *e.g.*, psychoanalysis. The most important of these, and the only one we shall discuss here, is the psychoanalytic theory of anal-erotic, oral-erotic, and genital types.

Psychoanalytic Theory of Personality Types.—The theory of personality formation developed by Freud and his followers is inclined to emphasize environment somewhat more than heredity. While much of the Freudian material on psychosexual development[8] reads like an account of the unfolding of a complicated hereditary pattern, it is usually clear that the implications for personality are closely related to environmental gratifications and frustrations. We thus feel that it is legitimate to classify the Freudian types as based on experience patterns.

The Anal-erotic Type.—Freud (1924, Vol. II) first noted a triad of characteristics which occurred as a pattern, and designated them as making up the "obsessional character"; these traits were orderliness (often, overfussiness about details and pedantry), parsimony (often to the point of miserliness), and obstinacy. Upon closer study of several cases who showed this fussy, stingy, stubborn personality to extreme, he concluded that the basic phenomenon was the fixation of the libido (basic motivation) upon anal mechanisms. Other studies by Ernest Jones and Karl Abraham seem to confirm this general association.[9]

Some of the discussions of the anal type suggest that there is a constitutional predisposition to become fixated at this level of development. In general, however, the opinion seems to be that an anal-type character is produced by such phenomena as toilet training of an extremely rigid and severe kind or by circumstances such that the child finds that he can get special pleasures by control of his excretory functions. These plea-

[8] For a summary of this material, see Chap. XV.

[9] A purely statistical study of questionnaire data by Stagner and Krout (1940) also lends some support to the stated association, although not necessarily to the typological theory.

sures may include special attention from the parent at toilet time, concern if excretory functions become irregular, a great deal of praise for cleanliness; conversely, if the child feels hostility and resentment toward the parents, soiling his clothing may be pleasant as an expression of aggression.

The evidence that the orderliness-parsimony-obstinacy triad is related to anal sexuality is too complex and would take us too far afield to be summarized here. There does seem to be fairly convincing proof that, at least in extreme cases, the connection is present.

The Oral-erotic Type.—While some psychoanalysts distinguish two anal-erotic types, these overlap sufficiently that the single description given above seems satisfactory. It is generally agreed, however, that there are two oral types, the passive, or "sucking," type and the active, or "biting," type.

The oral-passive type is the dependent, optimistic, immature individual who thinks the world owes him a living. He longs to continue as an infant, cared for by his parents; while he may have ambition, he is unwilling to exert the effort or to endure the discomfort necessary to achieve anything. The analysts consider this type produced by a fixation at the nursing, sucking stage of infancy.

The oral-sadistic individual presumably owes his characteristics to a frustration of nursing activity and to a fixation on such functions as biting and chewing. His basic outlook is one of pessimism and an anticipation of malice. Like the oral-passive type, he thinks the world owes him a living, but suspects that he is going to be thwarted. He is likely to be sarcastic and bitter in conversation, if not actively sadistic in his treatment of others.

The Genital Types.—If the child succeeds in developing normally past the oral and anal stages, he may become fixated at the phallic stage, instead of progressing to the normal genital level of mature adjustment. The phallic type is described as narcissistic and overambitious, an exhibitionist and braggart. He must always be the center of attention and reacts very poorly to any kind of thwarting. His difficulty arises from traumatic factors operating in early adolescence, at the stage when a transition to a normal adjustment to members of the opposite sex should begin.

Beyond the phallic type we find the complete maturity of normal genital sexuality. This can hardly be referred to as a type, since it comprises a rather large segment of the population and is presumably the norm at which the others aimed but which they failed to reach. It involves an adequate balance of selfishness and altruism, dependency and independence,

ambition and restraint. It thus incorporates material from the oral, anal, and phallic stages into a well-rounded personality.

Comments on Freudian Type Theory.—It is clear from the context, if not always from the exact words, of Freudian writers that these types are considered merely as the extremes of distributions, with all kinds of variations of less exaggerated nature. J. F. Brown (1940) summarizes this point of view as follows:

"We seldom find pure character disorders of the types of which we have spoken. Usually there are present in the same individual strong orally determined personality character disorders with less striking anal- and phallic-determined ones, or strong anally determined character defects with the others less striking. *The transition* to perversion or mental illness, on the one hand, and to complete normality, on the other, *is also a gradual one.*" [10]

It is further apparent that this theory is compatible with a bias in favor of learning. While there is some suggestion of the thought that an individual frustrated on a certain level must inevitably develop certain traits, most analysts recognize the role of environment in implanting these specific trends. At the most, the dynamic factors sensitize the person so that he picks up certain attitudes and rejects others. Thus the overconcern of the anal character with money is traced to a symbolic relationship between money and feces, mediated by the conceptions of value which the child acquires from adults.

Finally, it would appear that few of the exponents of this theory would use it as a basis for classifying personalities in general. The types are conceived more as special cases, which illuminate milder trends in the general population—not as a comprehensive scheme of classification within which all or most individuals can be included.

Is Type Theory Useful?

It seems worth while, before closing this discussion of type theories, to raise the question, Is type theory useful? Perhaps a better form of question would be, Under what conditions is it useful?

Determination of Parts by the Whole.—Type theory has served a useful purpose by emphasizing the extent to which the parts (specific emotions, prejudices, traits, and attitudes) of personality are determined by the whole. The Gestalt school of psychology, as Murphy and Jensen (1932) have shown so well, lays an excellent basis for a typological approach to personality. All the data on configuration, figure-ground relations, and closure are harmonious with a theory in which a total organi-

[10] Brown (1940), p. 396. Reprinted by permission. The italics are ours.

zation, once established, imposes strict limitations upon the variability of parts within the system. In their attempt to put this case as favorably as possible, however, we suspect that Murphy and Jensen become too poetical when they assert that "The present is as much determined by the future as it is by the past, but of course it is not determined by either. It is rather an aspect of a total which is itself an aspect of a still larger pattern in reality." [11] This business of patterns' being part of larger patterns, which are parts of still larger patterns, begins to sound suspiciously like the verse which goes

> "Great fleas have little fleas upon their backs to bite 'em,
> And little fleas have lesser fleas, and so *ad infinitum*."

It is possible to argue, not only that the whole determines the parts, but that the parts determine the whole. The personality is a product of its historical development, a function of the interaction between a physiological organism and the environment. Traumatic experiences, religious conversion, psychoanalysis—such factors can be associated to definite changes in the whole personality.

There is actually a danger, when one insists upon the importance of the whole in determining the parts, of exaggerating the unity of personality. All observers agree that there is also a substantial degree of disunity and inconsistency—at least, within most of us. Thus the type theory is not unlikely to encourage a spurious assumption of unity when only limited unity is present.

The determination of parts by the whole personality is not exclusively accounted for by type theory. The learning theory set forth in Chaps. V to IX proposes that, as larger integrations are established, they modify certain more specific tendencies to achieve conformity; and they establish broad mental sets, within which future developments are normally limited. This view seems to cover the verifiable facts about the part-whole relationship in personality.

The Hypothetical Pure Case.—Another defense of type theory, which seems more plausible, evades many of the criticisms that we have presented for various theories. Granted that pure types may be rare and that random variations may obscure relationships, as far as the average person is concerned, may it not still be true that an isolated, special case may be more informative to the psychologist than the general run of the population? Lewin (1935) has presented the view that scientific laws may be better based upon the pure case than upon the average of many

[11] Murphy and Jensen (1932), p. 24.

observations. This view, of course, would militate in favor of type theories and against the impressiveness of statistical evidence for the opposed view.

Let us take a single example from physics. If we measured the rate of fall of rocks, wood, feathers, silk, and other substances through a vacuum, through air, and through water, the resulting average figure or the resulting distribution of speeds would not enable us to derive the basic equation for the rate of fall of physical objects. The extreme case, that of falling through a vacuum, furnishes the best approach to the true law, although in "real life" such a case might never occur.[12] We must assume that all falling bodies obey this physical law, hence it does not matter that the fall through the vacuum is a special case; it is really interpreted as a case in which confusing factors are eliminated.

In the same way, one may agree with Lewin that, even though a pure personality type does not occur, it may still be the hypothetical pure case which gives the most illuminating insight and the most basic formulation of personality. In everyday behavior, responses to real situations are confused by the interpolation of various matters which are not really relevant to the personality trait that we should like to test. One of the difficulties with scoring traits on the basis of questions answered is that the same answer may be diagnostic, now of one trait, now of another. Behavior is not "pure"; it is confused by the interaction of numerous determiners. Thus the hypothetical case, by eliminating these irrelevant factors, may give a more accurate view of the total personality.

If the other type theories are viewed from this angle, they may be seen to contribute something to psychological analysis, even if they do not reveal existent separations of human beings into pigeonholes. Jung's conceptions of introversion and extraversion, for example, help toward understanding the behavior of some individuals, even though with others they may be useless or misleading. Freud's oral-erotic and anal-erotic types are rare; yet an awareness of these organizational patterns may be of value in understanding a personality which is not nearly so extreme as the type description.

Do Types Help Prediction?—It might seem, on the basis of this argument, that a judge might more accurately predict an individual's behavior in some specified situation if he had allocated the personality to some appropriate type classification. Hanks (1936) attempted to verify this idea. He presented experienced psychologists with detailed case histories from which carefully chosen material was omitted, *e.g.*, score on an inventory of neurotic tendency. In one

[12] Compare this discussion with that on standards of normality, Chap. III.

series, they were asked to predict this score merely from the data given; in another set, they were asked to "type" the personality and then make certain predictions.

In both instances, the judges were able to make various predictions with substantial accuracy (correlations of about .60 on such items as neurotic score). However, *the use of types,* either spontaneously evolved by the judge or selected from a list presented by the experimenter, *did not improve this accuracy.* The judges showed only slight agreement in choice of type for a given person; and they apparently went back to specific evidence in the case history when making predictions, rather than basing them on the necessary interconnections existing for such a "type."

Types as Anchoring Points.—All observations of personality result in judgments, and these judgments are oriented to a certain frame of reference. Every reference scale must have certain anchoring points—extreme instances within which minor variations can be discriminated. A man who moves to an area where the physical appearance of the people is markedly different from his usual associates—*e.g.,* a European going to Central Africa—has difficulty judging height, recognizing faces, and making similar discriminations, until he establishes a new reference scale. Before this is possible, new anchoring points must be established and degrees of difference marked off mentally.

It seems that the greatest single value of type descriptions is as anchoring points for reference frames regarding personalities. Careful study of such type theories as those of Jung, Kretschmer, Spranger, Sheldon, Jaensch, Adler, and Freud will provide the psychologist with certain landmarks, or reference points. He can then orient himself, in his study of any given individual, by comparing this personality to the standard types, noting certain aspects which call to mind the introvert, the cerebrotonic, or the oral-sadist. He can thus achieve, in his own mind, a fuller and more complete description of the personality than would be possible without such reference points. He may, however, find that none of the type theories help toward understanding the origin of the personality structure, or in planning advice or therapy.

Summary

If types are conceived in terms of the relative dominance of certain characteristics within the individual, it is possible to harmonize type theory with the fact of normal distribution of measured traits. It is possible, consequently, that Jung's introverted and extraverted types, Kretschmer's cycloid and schizoid, or Freud's oral-erotic and anal-erotic

types can be identified by the study of dominant features within the individual personality.

The very multiplicity of type theories, however, belies their general applicability. Were there any universal system of typing which would fit a substantial number of cases or throw special light upon personality organization, it would be espoused by a greater number of psychologists than at present. Each type theory represents the special interest of its inventor.

Type theories have certain values for psychology, in that they emphasize the importance of conceiving the personality as a *Gestalt,* a pattern in which the parts are to some extent determined by the whole. Types are also valuable in the sense that certain experiments in physical science are valuable; they call attention to certain processes in relatively pure form, uncontaminated by accidental and confusing factors. Finally, types are especially useful in providing reference points for the psychologist as he attempts to comprehend and understand an individual personality under investigation. Care is necessary, chiefly to avoid the common error of attempting to classify everyone into types; because the average person, it would seem, does not fit any of these type descriptions.

Suggestions for Reading

Murphy and Jensen's *Approaches to Personality* gives a sympathetic and stimulating view of type theory in general, as well as of several specific theories. An effective but highly compressed treatment is given by MacKinnon in Chap. I of Hunt's *Personality and the Behavior Disorders.* For more detailed data on each of the theories, such as Jung, Sheldon, and Freud, these authors should be consulted directly in the works listed in the Bibliography at the end of the volume.

SECTION III
DYNAMICS OF PERSONALITY

CHAPTER XIV
THE BIOLOGICAL BASIS OF MOTIVATION

The psychologist can study personality chiefly in terms of gestures, verbal expressions, characteristic habit patterns and preferred situations. In this case he would be emphasizing what we have called the descriptive approach. On the contrary, psychologists also may investigate personality to identify persistent purposes, compelling needs, and characteristic motivations. This focuses attention on the dynamics of personality. In some degree our attempt to discuss personality without regard to dynamic factors has been like describing the exterior of an automobile, its rate of movement, turns, etc., while ignoring the characteristics of the engine. The dynamic psychologists have, in many cases, devoted their efforts to understanding the engine, with no thought for externals. A complete psychology of personality must deal adequately with both aspects; in such an approach each aspect helps to illuminate the other.

Traditional Psychology Neglected Dynamics.—"Wipe out imagination; check desire; extinguish appetite; keep the ruling faculty in its own power," wrote the Roman sage, Marcus Aurelius. Thus do we find in epigram a maxim which guided psychology for over 1,600 years. And yet, if psychologists had looked back of the maxim (not only of Aurelius, but of Aristotle and many of the other great philosophers), they might have discerned that the very reason for emphasis upon the dangers of the appetites lay in the strength and importance of those appetites.

Long after the intellectual Renaissance, philosophers still believed that the proper study of psychology was the rational life of man. To the modern psychologist this attitude seems rather like what we have mentioned in previous chapters as "wishful thinking"; because they *wanted* to consider man a rational animal, they neglected consideration of his irrational, appetitive side.

There were many trends in the development of scientific psychology, around the turn of the century, which impelled a change in this attitude toward human emotions and motives. Among these we may mention the increasing interest in abnormal human behavior; the evolutionary conception of human nature, with consequent interest in animal experimentation; and the impact of the expanding science of sociology, with its concern for the individual psychological factors underlying social group phenomena.

Abnormal Behavior Emphasizes Dynamics.—One important reason for the shift from the purely rational psychology to one which emphasized the motives and drives of the personality lies in the increasing study of abnormal people. In these cases we find behavior which mimics or caricatures the normal, specific responses which would be perfectly acceptable under other circumstances, or peculiar actions by persons who seem to be of perfectly normal intelligence; but attempts to change these acts fail because there is a driving urge, a need, which these responses in some way fill. This is especially obvious in the neurotic, the individual who is normal in most respects but has some maladjustment which seems to cause him great social and even personal inconvenience. The persistence of this maladjusted behavior in the face of efforts to change it emphasizes the presence of powerful drives within the personality. Students of the abnormal have carried over their observations into the psychology of the normal person, and we shall find their conclusions of the greatest importance in understanding everyday human behavior.

The Biological Approach Shows Dynamic Processes.—Although the behavioristic school of psychology never worked out a systematic treatment of the problems of motivation, the emphasis placed by this group upon the study of animals contributed to a widespread study of drives. It is obvious, for instance, that you may ask a college student to learn a list of nonsense syllables in your laboratory, and he will do it without any obvious reward; but, if you try to persuade a white rat to perform a learning task without giving him some concrete reward or punishment, you will meet with dismally persistent failure. This observation led to a practical recognition and experimental study of the problem of drives in animals before similar work was projected for human subjects.

Sociologists Have Recognized the Importance of Drives.—Another group contributing weight to the growing movement toward the study of drives and urges has been that of the sociologists. They have sought in human nature the explanation of group organization, the forces which

make for group control, group leadership, and group change. These all trace back to motives of individuals.

Relation of Drives to Traits.—While we have employed such concepts as trait, attitude, and value in preceding discussions as purely descriptive labels of characteristic human behavior, one finds in his daily human contacts that these concepts carry dynamic as well as descriptive implications. An individual who manifests a trait of self-confidence will also, generally, need to act in the same way and will exert energy to act in a self-confident, rather than a self-deprecatory, manner. A boy with a generalized pattern of insecurity will show characteristic dynamic trends. A strongly ego-involved political or religious value will have the status of a persisting motivation within any personality structure.

Some General Principles

It will be helpful if we pin down certain concepts before going further with this discussion. Because of the lack of uniformity in psychological terminology, confusion may follow failure to define terms.

Drive.—We shall employ the term "drive" to identify a class of human needs which are closely tied to tissue conditions, and which are for all practical purposes determined completely by heredity. Hunger and thirst are excellent examples in this category.

Motive.—"Motive" is employed to identify a group of human needs which can be related only remotely to tissue conditions, which are markedly variable as between different social groups, and which are relatively more dependent upon experience than upon inheritance.

State of Agitation.—Underlying both drive and motive we postulate the existence of a state of tension or agitation which is the immediate inner stimulus to action. This state of agitation is connected, but not identical, with the unpleasant sensations experienced along with such drives as hunger and thirst. In the case of social motives, *e.g.*, the desire for social approval, the unpleasantness is not localized in any particular portion of the body, yet it is still introspectively noticeable in some cases. It may be that *anxiety*, with its generalized visceral tensions, is the basis for most of these unlocalized needs.

Drives and Motives Not Observable.—Neither self-observation nor study of others has ever revealed a drive or motive directly. We can observe actions and infer the existence of a dynamic tendency; we can note certain states within ourselves and label them as signs of stated needs. The impulse itself is a theoretical construct to explain our observations.

This point is significant only as a corrective to certain loose tendencies

in thinking. A good deal of writing—*e.g.*, in the psychoanalytic vein—implies that clinicians study directly the unconscious motives which underlie the patient's abnormal actions. Actually the sex, power, and other urges which are so valuable in clarifying our understanding of particular personalities are always abstractions from a mass of clinical data.

We do not intend in this way to deny the existence of needs. The point may be simplified by picking up an illustration from physics. A physicist never studies momentum in the abstract; he studies momentum as a property, an attribute, of a physical object. It is often convenient to talk about momentum apart from any moving object, but this does not make momentum a separate reality.

Characteristics of Motivated Behavior.—Some behavior leads us at once to infer the operation of some drive or motive, while other behavior sequences are—relatively, at least—devoid of motivation. Probably no human action above the simplest reflexes is completely unmotivated. The characteristics on which this inference is based are these:

Persistence.—When behavior is persistent in the face of obstacles and difficulties, we are justified in inferring a persistent underlying state of agitation, or tension, which continually initiates new action sequences. Up to a certain point, the amount of persistence is a direct index of strength of motivation; the hungrier a person is, the more persistent will be his food-seeking behavior. This relationship will hold until weakness sets in or, in the case of motives not connected with tissue needs, until negative adaptation to the tension takes place.

Variation.—Behavior which is motivated will also show variation in pattern when it is unsuccessful in relieving the tension. Thus a hungry child may beg for food, cry for food, or attack the person who is barring his way to the food. A man with a strong power motive will try business, politics, or fraternal and other organizations as pathways to the status that he craves.

Emotional Overflow.—When there is a delay in reaching a goal, the individual who is strongly motivated will react emotionally. Anger, apprehension, crying, loss of visceral control and other emotional symptoms may appear. When an intensely desired goal is attained, love and joy are likely to be manifest.

These three characteristics are especially clear in behavior which relates to the achievement of goals essential to biological survival, *viz.*, food, water, oxygen. We are therefore inclined to believe, when we find them manifest in behavior directed to other goals, that these goals have motivating value comparable to that of the basic tissue needs.

Drive, Valence, and Tension

In the chapters which sought to develop a systematic description of personality, we have introduced the concepts of valence and tension, each of which carries certain dynamic implications. It was felt that a satisfactory description of personality development required at least these concepts. No attempt has been made, so far, to indicate a plausible origin for either valence or tension. It is now appropriate to consider this question.

Valence.—In Chap. V, valence was treated as the positive (attraction) or negative (repulsion) value of a stimulus object for the individual perceiving it. There valence was, by implication, equated to pleasant and unpleasant interpretations of the stimulus. This interpretation is subject to some modification.

Strictly, valence refers to a demand value of an object, rather than to its feeling tone. Ordinarily we are attracted to pleasure-giving stimuli and repelled by those which are unpleasant. There are enough exceptions, however, to merit placing a little emphasis on valence as dynamic, not affective. The point may be illustrated by the story regarding the backwoods Maine native who said he was "going down to Bangor next week to get drunk and, Lord, how I dread it." The felt compulsion to carry out a certain act may overrule the conscious recognition of the unpleasant consequences which will surely follow.

Origin of Valence.—Lewin, who introduced this concept and used it extensively in his writings, had little to say regarding the origin of valence. It seems safe to assert, none the less, that objects must acquire valence in much the same manner as that described in Chap. VI, by which perceptual and affective interpretations become associated with particular stimuli. The ultimate origin of the dynamic quality of valence must be sought in the tissue needs of the biological organism.

For the infant, no objects have valence. The hunger drive sets off a demand for something, but the infant can hardly have any conception of what this something is. Only with experience will the bottle, the breast, cereal, or other food sources come to have positive valence for the child.

The dependence of valence upon learning is further emphasized by cross-cultural comparisons. Fried caterpillars, stewed earthworms, and other delicacies appeal to the appetites of those reared to appreciate them. Westerners might starve to death with such food resources available, because the objects have negative rather than positive valence for them. Under extreme pressure from hunger, men often eat nonpreferred

foods which they find repulsive; and they may even fight to obtain such food (positive valence), even though the act of eating it is unpleasant.

Tension.—Like valence, the concept of tension is especially easy to illustrate by reference to food-seeking behavior. When one becomes hungry, his hunger pangs can be shown to coincide with marked muscular contractions of the stomach wall. These contractions become more or less chronic if food is not obtained, although they will weaken in time, when the subjective feeling of hunger also diminishes. There is thus a literal physical *tension* associated with hunger.

Tension seems to provide the persistent physiological basis which underlies and determines the persistent character of motivated action. Tension in one muscular system spreads readily into others. A hungry man does not give up readily in his quest for nourishment. A frightened child will try many different methods of escaping a fear stimulus. Tension seems to be the concept needed to explain in biological terms how this action sequence is maintained.

Tension and Tissue Injury.—Tension is also an outstanding feature of the organism's response to physical pain and threats of tissue injury. The responses of young infants to hunger, pain, and loss of support are descriptively quite similar (see Chap. V). Marked tension of both skeletal and visceral musculature seems clearly demonstrated.

The drive value of pain needs no proof. Reflex responses of thrashing, screaming, and squirming (which might remove the stimulus or summon aid) are noted in young infants when pain is present, and these responses displace any other activity in progress. It would, however, be biologically unadaptive for the organism to wait until physically damaging stimuli attained actual contact with the skin. Through learning, the child perceives signs of threatening pain and avoids these signs. These avoiding responses find their persisting base in the visceral and skeletal tensions associated by conditioning with the stimulus signaling danger. This anticipation of pain we have referred to (Chap. VI) as *anxiety*.

Anxiety is now recognized as a key concept in the understanding of human motivation. Not a great deal of human behavior can be traced to actual escape from physical pain. An enormous amount, however, can be traced to the avoidance of anxiety.

The visceral tensions and skeletal reactions characteristic of the infant encountering physical pain are apparently identical, for practical purposes, with those of hunger, thirst, oxygen lack, and restraint of free movement [Sherman (1927)]. There is probably a very substantial amount of cross conditioning, so that correct forms of behavior in the child are rewarded by food, cuddling, praise, and the like, and incorrect

behavior is supported by threatened deprivation or pain. Thus to the three-year-old, mother's harsh voice may not only be unpleasant in itself, but may also be a threat of loss of tidbits, loss of pleasurable games, and loss of affection. Marked anxiety and tension may, therefore, be the consequence of a slight stimulus, and behavior persisting over a period of time may result.

We propose, therefore, to employ the concept of drive to include the whole complex of an unknown initiating state, the physiological tension or pain which maintains behavior, and the searching activity itself. Tension will identify the persisting inner stimulus, usually muscular tension, which sets off new action sequences as old ones are concluded. Valence will refer to the perceived quality of objects, evaluated as to their positive or negative value in serving the need now dominant.

Specific Tensions versus General Tension.—The biological approach to motivation tends to focus attention on segmental drives and specific tensions, such as hunger, thirst, and pain. To many psychologists it has appeared that this could give rise only to disjointed, unorganized behavior, quite contrary to the picture of personality which has been developed in previous chapters.

Morgan (1943), however, believes that there is sufficient evidence of a physiological nature to justify the assumption of some kind of persistent condition in the central nervous system, underlying all kinds of motivated behavior. He calls this the *central motive state,* or c.m.s. He points out, for example, that a hungry rat running a maze to get food does not run merely when he has stomach contractions, but shows a continuous search for food. A dog who has been deprived of water for a certain number of hours will drink the amount needed to restore his tissue balance, even if an esophageal fistula prevents any water from reaching his stomach. Evidently there is some kind of central state which mediates between the peripheral tension (visceral or skeletal musculature) and the response of search for a goal object. The nature of the c.m.s. Morgan does not attempt to identify. It would seem likely that it is a central representation of the anxiety tensions in visceral and skeletal musculature.

Tension and Equilibrium.—Such authors as Kempf (1919) and Raup (1925) have made a great deal of the hypothesis that every organism has a tendency toward equilibrium (homeostasis). There are certain optimum conditions of nutrition, physical comfort, sensory stimulation, and the like; and any divergence from these sets off behavior calculated to restore the equilibrium. Kempf particularly finds the physiological basis of this equilibrium-maintaining mechanism in the autonomic nervous system. Now we know that the autonomic initiates and discharges

tensions of the visceral musculature and, perhaps to some extent, of striped muscles as well. It thus seems possible that this tendency toward equilibrium is the ultimate physiological basis of tension. We do not, unfortunately, have conclusive evidence on this point; however, it is not essential to the study of personality. For the present we are content to emphasize the importance of muscular tensions as the persisting states underlying many types of motivated behavior.

Hormones and Drive.—In addition to generalized states of muscular tension as the bases for motivated action, it is necessary to recognize the role of certain chemical factors. The sex glands play an obviously important part in arousing and maintaining the sex impulse.

It is noteworthy that castrated animals and human beings in whom the gonads fail to develop normally show virtually no sex drive. If the loss of hormone function occurs after sexual maturity, however, the drive may be manifested in normal or subnormal strength for a considerable period of time. This is probably an illustration of the externalization-of-drive phenomenon, to be discussed below.

Whether the drive quality of the sex hormone is directly due to chemical reactions, or whether the hormone sets up muscular tensions analogous to those of hunger, is apparently not determinable at present. Certainly a strong sex impulse is likely to be associated with visceral changes and muscular tension. Since the establishment of tension seems to be intimately involved in the operation of other physiological drives, it would not be surprising if research ultimately proved that the hormone sets up tensions which, in turn, provide the base for the persisting quality of behavior.

In addition to the sex glands, which are associated with a specific drive, it is likely that the endocrines are involved in a general way with all motivated action. The role of the thyroids in determining energy level, for example, must be considered in evaluating the intensity of motivation of any particular individual. Further attention will be given to this point in Chap. XVII.

Environmental Modification of Drives

Drives are conceived as innately determined tissue needs which impel the organism to seek appropriate goal objects for the satisfaction of these needs. Few human needs, however, persist for long in this state of complete determination by heredity, particularly as regards the pathway to be taken and the kind of objects which will be perceived as goals. Almost as soon as the individual is born, the learning process begins to modify and pattern these drives.

Externalization of Drive.—A great many psychologists have called attention to the fact that "instincts," drives, ways of escaping pain, etc., may become transformed to such an extent that the motivating quality functions independently of its innate origin.[1] Anderson (1941a, b) has focused on an important aspect of this modification in his phrase, "the externalization of drive." Anderson found that, if rats obtained food rewards for learning one maze, a second maze would have some reward value (and be learned), even when no food was provided. On this basis he concluded that the drive had become "externalized," *i.e.*, aroused by the external situation rather than by the original, innate "state of agitation."

It seems a bit more satisfactory to fit Anderson's findings into a perceptual framework, rather than to accept his "externalization of drive" literally. The drive itself could hardly be externalized. The goal object, however, can be modified. In Anderson's experiment, hungry rats ran through a maze and found food. The drive endowed food with a positive valence. The end of the maze and the presence of the food were continually being perceived together. It thus appears appropriate to suggest that that maze situation acquired a positive valence and thus could function as a *substitute reward,* as a consequence of this learning process. Further, the muscular tensions which were originally set off by the inner need become associated with the maze. Putting the animal into a new maze might, therefore, be expected to set up similar muscle tensions, which would be released by the act of running the maze.

In the same way, Woodworth's "mechanisms become drives" and Allport's "functional autonomy" seem merely to be statements of the fact that objects associated with achievement of a goal may themselves become goal symbols and goal substitutes. The quality of positive or negative valence can become attached to new stimuli by conditioning. Habitual satisfaction of a need in a given environment tends to give that environment a need-satisfying quality in its own right.

Anticipation of Need.—The externalization process in animals needs to be analyzed in such a way that no conscious anticipation of future tensions is involved. With human beings, such a limitation is clearly unjustified. To a certain extent the phenomena of motivated behavior persisting after the need has been satisfied may be conceived as a function of anticipation of future needs. The well-fed man may be keenly aware that he will again experience hunger. Escape from pain today does not end pos-

[1] *Cf.* Woodworth (1918), Valentine (1927), and Allport (1937).

sible danger tomorrow. The quest for *security* is, to some extent, merely an anticipation of future needs and an attempt to provide against them.

One notes marked individual differences among personalities in the extent to which specific needs, or all needs, are anticipated. A feature of infantile personalities is the failure to anticipate future discomforts (*cf.* Freud's reality principle, Chap. XV). Some people are much concerned over possible future deprivation of physical comforts, others over lack of food, others over sex gratifications. It may be presumed that these are the same persons in whom the corresponding drives are relatively strong.

Inhibition and Facilitation.—Learning may modify the nature of the objects which are perceived as drive satisfying. It may also modify the intensity of the drive, at least in so far as any observable manifestations are concerned.

Inhibition of a drive is observed when the act of satisfying the drive sets off anxiety; *e.g.*, the case of a small boy, reported by Sherman (1935), who had in some way associated eating with pregnancy and feared that he would have a baby if he ate too much. The sex drive, of course, is commonly subject to such inhibition by anxiety. Also, many individuals are afraid of their own aggressive impulses and "bottle up" anger until severe personality disturbance results.

Conversely, experience may lead to exaggeration of a drive and overevaluation of goal objects satisfying this drive. Hunt (1941) has shown that rats subjected to severe frustration of the hunger drive in infancy will, as adults, hoard food pellets in quantities far greater than will those of a control group. Human beings show a similar pattern; those who have suffered hunger a great deal will overvalue food, while those who lacked affection will show a restless craving for more and more love from their intimates.

Substitution of Goals and Activities.—It is easy to think of eating as an activity related only to the hunger drive, copulation as a means only for the gratification of the sex impulse, and so on. Actually, both animals and human beings show a substantial degree of flexibility in substituting one goal for another or in using one goal-directed activity as a means to another end.

Maslow (1936) found that, among the monkeys and apes he studied, sexual behavior might be a means of avoiding a beating, of obtaining food, or of asserting dominance. In these primate groups, one animal achieved the status of overlord or "dictator." He or she controlled the food supply, administered beatings, and so on. A subordinate animal could obtain food by assuming the female sexual position, and could avoid or mitigate a beat-

ing in the same way. A great deal of copulatory behavior could only be understood in this way.

Among humans we have not only the familiar examples of commercialized prostitution and marriages for money, but other and clearer examples of the interchangeability of biological drives. An interesting case is that of a man who feels unloved. He has a great "hunger for affection." He eats excessively and places a high value on food. Apparently this substitution is based on an identification of the mother as a source of affection and of food. Sexual intercourse is relatively more frequent in human communities with a low standard of food and other comforts; just as, among rats who are placed on a low-calorie diet, at least a temporary increase in sexual activity is shown.

What is the basis for these goal-substitutive reactions? It is not possible to give an absolute answer, but at least one suggestion seems plausible.[2] This is that the presence of any frustration—hunger, sexual deprivation, and so on—gives rise to anxiety. In the past, anxiety has been relieved in many ways: by eating, by drinking, by copulation and other acts. For some time, therefore, a persistent frustration of one drive may give rise to a restless trial of other sources of gratification.

Drives and Individuality.—To the extent that we concern ourselves with those aspects of drive which are innate, we obtain very little information bearing on the problems of the unique individual personality. All persons experience hunger; hence the experiencing of hunger, as such, has no differential significance. On the other hand, the intensity of hunger, conditions under which it will be allowed to dominate behavior, goal objects perceived as suitable satisfactions, and so on—aspects determined by learning—have important bearings on personality.

Infantile personalities are characterized by the inability to inhibit the satisfaction of present drives in favor of greater future satisfaction or the avoidance of future pain. Mature personalities are capable of balancing the various drives and the related satisfactions, and of making a long-range choice.

A glutton or a gourmand has a personality in which the mode of gratification of the hunger drive has become a major feature of the individual's make-up. The man who attempts to act out the role of a Don Juan has given a central place to the sex impulse. Many unique traits can be understood only as organizations of a drive, its goal objects and modes of expression. The most important single contribution to psycho-

[2] We are not referring here to such examples as prostitution and commercialized marriage, where the one activity has become simply a means to another goal. Such cases can be understood in terms of ordinary learning principles.

logical theory of recent decades, that of Sigmund Freud, revolves, in the main, around this problem of the development of infantile drives into adult personality.

Appetites and Aversions

After the process of environmental modification has proceeded to some extent, the raw quality of the inherent drive is substantially changed. There is thus considerable justification for adopting a different verbal label to identify this change. It is suggested that the concept of *appetites* and *aversions* is appropriate here.[3]

Appetites.—Hunger for specific food substances is commonly designated as appetite. Maslow (1935) cites numerous researches which indicate the importance of differential preferences for specific kinds of food, in the motivation of animal experiments, as well as in human psychology. The organism is more strongly motivated when the goal object appeals to an appetite than when it is merely tension reducing; dry bread may appease hunger, but a well-cooked dinner has much stronger valence.

The sex impulse is subject to the same process. Mechanical stimulation of the sex organs may bring orgasm and release of sex-originated tension, but maximum sexual pleasure is dependent upon various conditions determined by training. An American college man will have the same sex drive as a Siberian shepherd, but different sexual appetites.

The initial, inherent physiological "state of agitation" which sets off food-seeking or other motivated behavior remains the same. It is, however, integrated into the more complex pattern of appetite, and the search for satisfaction becomes selective and discriminating. Major personality differences are found as we study the appetitive behavior of various individuals.

Aversions.—The psychological converse of an appetite is an aversion —a stimulus to which the individual reacts by withdrawing. The tension basic to aversions is anxiety, which in turn is based upon anticipation of physical injury. As Tolman has pointed out, however, aversions may be divided into two subcategories, *fright* and *pugnacity*. Rather than imply,

[3] The choice of these two terms may seem unfortunate in view of the fairly substantial deviation proposed here from the meaning ascribed to them in the writings of Tolman (1932) and Craig (1912) and followed in the first edition of this text. These authors stress the unlearned quality of both appetites and aversions, whereas the present usage emphasizes precisely the learning modification as the feature differentiating the appetites and aversions from drives. Wide psychological usage, however, characterizes the definition of appetite as food hunger influenced by training; and the term "aversion" is also commonly used to indicate a learned prejudice. We feel, therefore, that this appropriation of terms will not unduly compound confusion.

as does Tolman, that this differentiation is innate, we suggest that it is simply a matter of the way in which the individual thinks he can get rid of the anxiety-arousing stimulus. If running away seems correct, we classify the aversion as fright; if destroying or driving away the stimulus seems more appropriate, we speak of pugnacity.

We have already described in Chap. VII some of the reaction patterns developed by individuals trying to run away from stimuli which arouse anxiety, or trying to attack and break down barriers (which may arouse anxiety related to fear of not attaining a desired goal). The significance of these patterns for personality development was considered at that time. It may be desirable only to add that some infants seem to have a pronounced leaning toward fright as the characteristic form of aversion, while others tend toward pugnacity. Adults likewise show uniquely personal qualities in the frequency, intensity, and patterning of fright and pugnacity.

Second-order Appetites and Aversions.—Tolman extends his discussion of appetites and aversions beyond the clearly biological level. As first-order appetites he lists food hunger, sex hunger, excretion hungers, specific contact hungers, rest hunger, and sensory-motor hungers (aesthetic and play hungers). All these can be tied rather closely to physiological states.

He proposes, however, that second-order impulses also be recognized and lists curiosity, gregariousness, self-assertion, self-abasement, and imitativeness. These are considered second-order phenomena on the basis that their biological function is to bring the organism into relationship with stimuli which will satisfy the first-order appetites or aversions.

The first-order appetites, such as hunger, thirst, and sex, have regular cycles of demand and quiescence, while the first-order aversions are ready to go off at any time. The second-order impulses thus seem to resemble the aversions more than the appetites, and Tolman therefore classes them as aversions. As each of them is primarily a seeking after some stimulus, this verbal usage seems utterly unrealistic. To the extent that curiosity, gregariousness, and the others are true impulses and not mere habits or values, they certainly seem to be appetites.

Tolman also seems to strain logic in concluding that these second-order needs are innate. His chief argument for this view is that "one notes a depressingly large number of individuals in whom curiosity, gregariousness, self-assertion, self-abasement, or imitativeness appear surprisingly undocile—individuals in whom it seems impossible to induce any restraint in the exercise of these second-order impulses."[4] This is scarcely con-

[4] Tolman (1932), p. 292. Reprinted by permission.

vincing. The habit of smoking or the habit of poker playing may be difficult to break, as many wives can testify, but this does not prove them to be inherited.

The process by which such patterns as gregariousness or imitativeness come to carry positive valence for an individual has been analyzed in Chap. VII. We are prepared to accept the impulses in Tolman's first-order group as innately determined; but the evidence for the second-order category seems to us to favor the environmental interpretation.

Conscious and Unconscious Impulses.—To the infant, the state of agitation which sets off seeking or avoiding behavior is probably diffuse and generalized. With maturation, there may come a focalization of conscious awareness that this disturbance is centered in the stomach, the throat, or elsewhere. Adults interpret the child's behavior and comment that he is hungry, thirsty, tired, and so on. Thus he acquires *verbal labels* for his various appetites and aversions, and they can be reported; only then can we confidently state that they are conscious.

For certain needs, particularly the sex impulse, this acquisition of verbal tags is delayed or beset with difficulties, confusions, and ambiguities. The words themselves are likely to become heavily freighted with anxiety, so that any tendency of these states of agitation to become conscious may set off inhibitory reactions. Any other tendency—such as overly strong pugnacity—may likewise set off anxiety, resulting in repression of the impulse from consciousness.

Failure to acquire, or to have command of, verbal labels for these states of agitation does not destroy the impulses themselves. It only makes impossible the evaluation of these impulses, recognition of possible pleasures and pains involved, and mature judgment as to appropriate action. Unconscious impulses are not automatically sources of personality difficulty; the need for oxygen, for example, is normally unconscious, but it is unlikely ever to be a cause of maladjustment. It is the anxiety associated with tabooed appetites, not the lack of conscious awareness, which is destructive. The appetite-anxiety conflict predisposes the individual to adopt one or another of the adjustment devices sketched in Chap. VII, so many of which are unsatisfactory in terms of long-term personality effects.

Limitations of the Biological Approach

There is sound justification for tying psychological phenomena to physiological bases wherever it can realistically be done. The personality develops as a function of a physiological organism, and physical limitations are always with it. Tissue needs are a perennial and powerful

group of factors, impelling the individual along various paths of action.

We are inclined to doubt, nevertheless, the adequacy of a view of motivation which clings too closely to these biological drives. The quest for food, even when we consider the anticipation of future hunger, does not account for a great deal of human activity, except in underprivileged areas. The direct search for sexual satisfaction is also not a major component of human behavior under usual conditions.

The sources of such complex activities as business, religion, politics, and art must be sought elsewhere than in biological motivation, even though most of them can ultimately be connected to biological needs. The drive which impels an individual to write a book, climb a mountain, throw wild parties, or spend years on studying the violin cannot be traced to any particular state of the autonomic nervous system, the hormones, or other physiological factors.

We feel the need, therefore, to expand the scope of this discussion of motivation by considering theories which roam rather far afield from the purely biological basis of human behavior. In the next chapter we shall sketch the theories of Sigmund Freud, Alfred Adler, Kurt Lewin, and Gordon Allport, as approaches which broaden the horizon and offer an understanding of motivation more appropriate to the complex intricacies of the unique personality.

Summary

Motivated behavior shows the characteristics of persistence, variability, and emotional accompaniment. In the infant, motivation seems to be based on obscure physiological conditions, here called "states of agitation," which are set off by tissue needs. The term "drive" is applied to certain universal motivating tendencies determined by hereditary factors.

The characteristic positive and negative valences of objects are found to be determined chiefly by the extent to which they serve these dynamic trends. In general, positive valence corresponds to a pleasant feeling tone, but certain exceptions must be noted.

Muscular tension is indicated to be the continuing factor which accounts for the persistence of motivated actions. The anxiety tension is proposed as the basis for many needs in which no innate muscular pattern appears to be involved.

While drives are determined chiefly by heredity, they are quickly modified as to time, place, and intensity of appearance, and as to acceptable goal objects, by the learning sequence. Individual differences in personality are often determined by the dynamic pattern acquired by the person

as he develops. In some cases, the unique trait which provides a key to the understanding of the total personality is built around some appetite or aversion.

Suggestions for Reading

Tolman's *Purposive Behavior in Animals and Men* gives a good introduction to the biological aspect of motivation, somewhat biased toward the hereditary viewpoint. Shaffer's *Psychology of Adjustment* presents a view more in harmony with our own. A detailed and technical survey of the known facts regarding biological drives will be found in Morgan's *Physiological Psychology*.

CHAPTER XV

CONTEMPORARY THEORIES OF DYNAMICS

The very fact that the dynamic factors in personality must be inferred, being unavailable to direct observation, makes for the proliferation of theories about dynamics. Psychologists with a physiological, or laboratory, frame of reference have preferred relatively simple, biologically oriented theories, such as have been presented in the preceding chapter. Psychiatrists and clinicians have dealt with more complex material and, consequently, have found purely biological approaches oversimplified.

It is impractical to attempt a summary of all these theoretical proposals. The most influential, that of Freud and his followers, will be sketched in fairly complete outline; then a few words will be added regarding the views of Alfred Adler, Kurt Lewin, and Gordon Allport, as representatives of theories diverging more or less sharply from the Freudian.

Sigmund Freud

Importance of Freud.—The contributions of Sigmund Freud, Viennese psychoanalyst, to the study of personality dynamics are undoubtedly greater than those of any other man or school of psychology. A rare genius for insight into the human mind, accompanied by wide clinical experience and patient exploration of various possibilities, made him the author of theories regarding motivation which were in some respects as far ahead of his time as were the theories of Galileo in another age. Like Galileo, he was met with antagonism and vituperation, though perhaps with less actual persecution.

Some of the difficulties of the Freudian theories have been the result of misconceptions. Strangely enough, in scientific writings, some of these misunderstandings have revolved around the translation of German terms. Such an example is found in the Freudian use of *Lust,* which in German means pleasure, but in English refers to sex, and in a socially disapproved manner. While we do not mean to imply that Freud's theories are not sexual, for they are, we do feel that a more careful translation of some of his early essays would have gained for them a more favorable reading. Another example of confusion from translation, as well as thinking, is the

word *Trieb,* which connotes impulse or drive phenomenon, but which has been generally translated "instinct." The term "instinct" in American psychology has been mired in a hopeless muddle of argument, and its use in this connection introduced an irrelevant confusion, for Freud unquestionably did not mean to imply "patterns of behavior" in his use of the term. Such little matters have interfered with a clear understanding of Freud.

The manner of opposition has also been one of personal attack and criticism rather than impersonal psychological evaluation of theory. These forms of criticism do not get at basic questions of correctness in Freudian theory, and they reveal only personal bias on the part of the authors.

Basic Assumptions of Freudian Theory.—Even when Freudian writings are translated sympathetically and with an understanding of the American connotation of terms employed, they still involve several assumptions which the majority of American psychologists may be inclined to question. In this respect we have a different "school" of psychology from Continental, even from British psychology, in which the concept of instinctive urges is more widely employed.

One of the most criticized assumptions of the Freudian theory is that of a relatively fixed amount of psychophysiological energy. As a locomotive has only one kind of energy, and cannot use it for this purpose if it is being used for that, so the Freudians argue that each individual has only a limited quantity of energy at any given time. If this is being consumed in one form of activity, it cannot be available for other possible acts. In thus emphasizing the unity of physical and mental activity, this view accords with American psychological thought; but it is easy to say that this view means assuming a mysterious kind of "energy." Critics have picked up this assumption and ridiculed it. And yet we do have one, and only one, kind of energy: the energy transmuted from the food we eat. It is mere common-sense observation that when one is ill the energy of the organism is diverted to physiological processes, and the mental functions are interfered with; and conversely, when worry or some intense mental activity is going on, physiological functions are less efficient.

Psychoanalytic observations reinforce these common facts. A person who has been relieved of obsessive worries suddenly develops new interest in social affairs. A patient who has been aggressive in his attitude toward the analyst and others suddenly becomes depressed; the analysis discloses that he is now turning his impulses of attack inward upon himself (self-criticism, etc.). Thus the analytic assumption of a relatively fixed level

of energy which may be diverted into any of a varied system of outlets seems to have a great deal in its favor. Naturally, we know nothing of the physicochemical nature of this process, but since physics still treats vibrations of various kinds as vibrations of "something or other," the psychologist need not feel inferior about the matter. Since we no longer assume that "physical" and "mental" processes are different in nature, the problem is not so important as it once was.

The Pleasure Principle.—In his theory as to the nature of the states setting off specific forms of reaction, Tolman borrowed very liberally from Freud. The latter assumed that inner tensions are set up which can be released by appropriate forms of reaction directed through some mechanism to or against some stimulus situation. This tension is referred to as the impetus for any particular reaction; the physiological system which alone can release the tension has been called the aim and the outside situation, the object of this drive. Thus, in hunger, the inner tension furnishes the impetus; the alimentary mechanism is the aim, and food is the object. In such a case, the object may be specific (desire for a particular food) or general; the aim, however, cannot be changed. In the case of other desires, the aim also may be subject to variation if the tension is not specific.

Freud's view of these tensions is that they are innate, but capable of attachment to a diversity of stimuli through learning; thus the importance of heredity is recognized without being overstressed. We shall find, however, that he considers some "aims" and "objects" to be innately determined, which on critical inspection appear to be more correctly explained on the basis of learning.

Freud (1922) treats these tensions as basic states which are associated with, or represented in consciousness by, a feeling of unpleasantness, and as running a course which leads to pleasure:

> "In the psychoanalytical theory of the mind we take it for granted that the course of mental processes is automatically regulated by the 'pleasure-principle'; that is to say, we believe that any given process originates in an unpleasant state of tension and thereupon determines for itself such a path that its ultimate issue coincides with a relaxation of this tension, *i.e.*, with avoidance of 'pain' or with production of pleasure." [1]

The pleasure principle, then, is conceived as an innate tendency of the organism which determines the manner in which psychic tensions are released. Forms of behavior which would lead in the direction of increased tension are inhibited, while those which lead to decrease of tension are

[1] Freud (1922), p. 1.

facilitated. In the life of the infant, the pleasure principle dominates all behavior. He is a flagrant egotist, seeking his own ends at all times. He demands food, comfort, attention. Some adults likewise show no willingness to inhibit a demand for immediate satisfaction of their desires. We speak of them as "childish" or "infantile."

The Reality Principle.—It is obvious that adult behavior in general is not governed exclusively by the pleasure principle. The generalized formula which distinguishes adult from infantile behavior, according to Freud, is the reality principle, which may be stated as follows: immediate pleasure or release from pain may be dispensed with, in order to obtain greater pleasure or freedom from pain on a future occasion:

"The first case of such a check on the pleasure-principle is perfectly familiar to us in the regularity of its occurrence. We know that the pleasure-principle is adjusted to a primary mode of operation on the part of the psychic apparatus, and that for the preservation of the organism amid the difficulties of the external world it is *ab initio* useless and indeed extremely dangerous. Under the influence of the instinct of the ego for self-preservation, it is replaced by the 'reality-principle,' which without giving up the intention of ultimately attaining pleasure yet demands and enforces the postponement of satisfaction, the renunciation of manifold possibilities of it, and the temporary endurance of 'pain' on the long and circuitous road to pleasure. The pleasure-principle however remains for a long time the method of operation of the sex impulses, which are not so easily educable, and it happens over and over again that whether acting through these impulses or operating in the ego itself it prevails over the reality-principle to the detriment of the whole organism." [2]

It is not assumed that the reality principle can completely inhibit, for any length of time, the manifestation of a drive. Hendrick (1934), whose discussion of Freudian theory is considered authoritative, makes an analogy of hydraulics in which he suggests that behavior following the pleasure principle can be represented as in Fig. 37: here we see a source of motivational energy or pressure, the pump. The pressure (tension) in the system is prevented from rising above a certain level by the outlet at *C*. This is the consummatory response of food getting, pleasurable contact or whatever is called for. If, in an organism controlled by the pleasure principle exclusively, blocking of the activity occurred as a re-

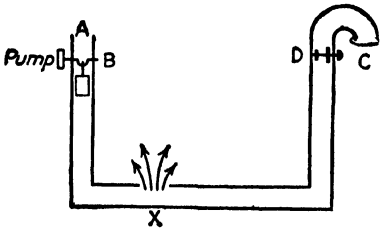


FIG. 37.—The pleasure principle illustrated as a hydraulic system. (*From Hendrick*, 1934.)

[2] *Ibid.*, p. 5.

sult of interference (the valve at D), the result undoubtedly would be breakage of the system (as at X) to give an outlet for the pressure.

The reality principle, according to this hydraulic analogy, can be interpreted as a way of diffusing and sustaining the tensions for a certain period of time or until a given level of pressure (much higher than the pleasure principle can tolerate) is reached. This is represented in Fig. 38. Here we find the reality principle represented in function by a reservoir, in which tensions interfered with by social restrictions (the valve at D) may rise to the point E before rupture of the system occurs. The outlet at C' represents acts which will give more or less adequate outlet

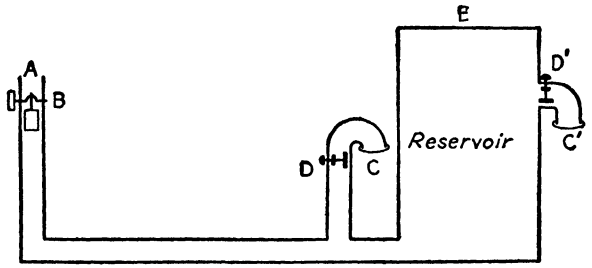


FIG. 38.—The reality principle illustrated as a hydraulic system. (*From Hendrick, 1934.*)

to the accumulated tension—acts which are controlled by social precepts —the valve at D'.

Freudianism, then, conceives the pleasure principle and the reality principle as dynamic laws governing the behavior of organisms. The simple, direct demands for gratification of innate desires characterize the infant's behavior, and these may be described by the pleasure principle. The ability to delay pleasures, to undergo discomfort in order to reach future gains, to satisfy desires by socially approved substitute activities —all these are characteristic of adult behavior and illustrate the reality principle. Almost all forms of behavior can be interpreted as cases of one or the other of these.

The Repetition Compulsion.—There seem to be a few instances of behavior not in accord with either the pleasure principle or the reality principle. Small children are often overheard in verbal play or spoken fantasy, repeating an *unpleasant* experience, such as having a tooth pulled. The same sort of repetition occurs in episodic neuroses, in which an unpleasant scene is reenacted with all its harrowing emotions. We should be inclined to interpret this merely as habit, a manifestation of the general tendency of acts to be repeated when associated stimuli are present.

However, Freud takes the view that there is a definite impulse to such forms of behavior:

"On impartial consideration one gains the impression that it is from another motive (than the pleasure-principle) that the child has turned the (unpleasant) experience into a game. He was in the first place passive, was overtaken by the experience, but now brings himself in as playing an active part, by repeating the experience as a game in spite of its unpleasing nature. This effort might be ascribed to the impulse to obtain the mastery of a situation (the 'power' instinct) which remains independent of any question of whether the recollection was a pleasant one or not." [3]

This last suggestion (of an impulse to master a situation) seems more plausible than a mere repetition compulsion.[4] Again, there is a question whether this form of behavior occurs spontaneously or whether it is derived from learning and observation of others.

Classification of Motivated Behavior.—It is manifestly impossible to study a drive directly. We infer a sex drive from sexual behavior, a food drive from food-seeking activity, and so on. Classifying the impulses in this way, Hendrick (following Freud) finds three main groups of "instinctual" activities: the sexual impulses, those whose objects are pleasurable sensations of all kinds (not in the narrow sense of sex as such); the ego impulses, whose objects are nutrition and self-preservation in general; and the hostile impulses, those which are manifested in aggression toward others.[5]

Organization of Drives.—For purposes of theoretical systematization, as well as for the explanation of results of analysis and treatment, Freud discusses the drives as organized into three generalized systems, the Id, the Ego and the Super-Ego. (The use of "Ego" here must not be confused with the ego impulses.)

The Id.—This is the collective term for impulses which are described as primitive and animal-like. The raw, uncontrolled desire for food, for sexual satisfaction, or for attack and injury to someone else, are characteristic of the Id. We do not accept the Id as part of our personalities; we refer to it in the third person: "*It* made me furious," "I was not myself," etc. The impulses of this group are governed by the pleasure principle exclusively. Morality, fear of consequences, discipline, and so on, are

[3] *Ibid.*, p. 14.

[4] Many anlysts now reject the whole concept of the repetition compulsion.

[5] There is considerable reason to believe that the hostile impulses are derived and not innate. However, the pleasure small children seem to derive from aggressive behavior toward other children and from acts of cruelty to animals and insects, as well, caused Freud to treat them as innate.

not part of this level of personality organization. Naturally the normal adult shows few reactions which are characteristic of the Id. In the case of sexual crimes, Id impulses are released. The horror felt by others at such crimes is determined at least in part by the intensity with which the Id impulses have been repressed and our fear that some day they may escape this suppression. It is convenient to speak of the Id as "striving," although, of course, that must not be treated literally. The Id is not an existent entity. It is merely an abstraction, a collective name for these impulses of a primitive character.

The Ego.—As remarked earlier, the Id is not allowed to express itself directly in adult life. In accordance with the reality principle, the direct release of certain tensions is inhibited and they may be sustained or released in different forms. Considering the sum total of these modifications of instinctive drives, we speak of the "Ego" as an abstraction of those impulses which require the postponement of present pleasure in order to attain a greater future pleasure or to avoid future pain. The Ego is thus essentially selfish, as is the Id, but the Ego is intelligently selfish, because it is in contact with the outer world and the requirements of reality.

The Super-Ego.—As Freud originally formulated his theory of impulse organization, he included only the Ego and the Id. Later, as he checked his theory against analytic observations, he concluded that another element or classification would have to be added. Briefly, he concluded that within the personality there develops a system of drives in the direction of *approved* behavior. Not just the avoidance of behavior which will result in pain or psychic discomfort, which is the Ego function; but a drive to do only those things which are socially approved, even in secret where no punishment threatens. The Super-Ego arises as a result of the introjection of social demands so that they become self-demands; the requirement of social conformity is first imposed by social pressure, but later this conformity is a necessary condition of peace of mind. The Super-Ego thus corresponds to the individual's "conscience."

Interaction of the Three Systems.—The interaction of these three impulse systems is represented graphically by another set of diagrams from Hendrick, presented in Fig. 39. These four diagrams are intended to represent differences in interaction of the three systems in infants, in normal adults, and in neurotic and psychotic (insane) adults.

The Id is represented as the source of all instinctual energy, all needs and desires, shown by arrows pointing outward. These desires are communicated to the Ego and some are carried out (arrows pointing outward). Some are inhibited by influences from the environment (arrows pointing

inward). Thought, feeling, and behavior are represented as functions of the Ego level.

The infant stage is shown as lacking the Super-Ego. This develops until at maturity it represents a strong barrier to the expression of socially disapproved impulses. Actions are now represented by "I will and may . . . ," *i.e.*, I want to, and to do so is not disapproved. Some inhibitions, on the mature level, come from the external environment, but most of them now originate within the personality itself, in the Super-Ego. Since the Ego and the Super-Ego are never complete, the diagram shows a break which allows infantile behavior of some kinds to reappear. Love is now directed to ideals, as well as to persons, but one may still have infantile attachments, etc. Likewise destructive impulses may be directed against social conditions, instead of exclusively against things and people, but most personalities continue to show some infantile annoyances and rages.

With the neurotic and psychotic personalities this volume is not particularly concerned. It will suffice to point out that in these cases the Ego and the Super-Ego are inadequately developed, or are broken by some traumatic experience which makes normal control of Id impulses difficult or impossible. In the case of insanity, the Ego (executive) function is not adequately adjusted to the requirements of the social environment imposed through the Super-Ego. Thus we have the individual experiencing thoughts and perceptions which are not in accordance with reality, but with the demands of the Id (delusions, hallucinations).

Conscious and Unconscious Impulses.—Another point at which Tolman (and others) show Freudian influence is in recognizing the importance of unconscious drives. Since we have already pointed out (Chap. XIV) that an unconscious drive is not unique, but is merely a drive for which the subject lacks adequate symbolic expression, we need not spend much time on this point. Its importance can be appreciated only if the student has some notion of the highly abstract, intellectualized, academic psychology of the nineteenth century, which limited itself to the study of conscious processes. Consciousness gives representation to only a very limited portion of human activity, and the vast majority of our desires, impulses, and emotional responses are inaccessible to introspective observation.

In calling attention to this very important fact, Freud unfortunately used a metaphorical expression, "the Unconscious." Many psychologists took this expression literally and accused Freud of trying to set up entities within the mind, as faculty psychology had spoken of "the Reason" and "the Will." Actually "the Unconscious" is to be taken only as a collec-

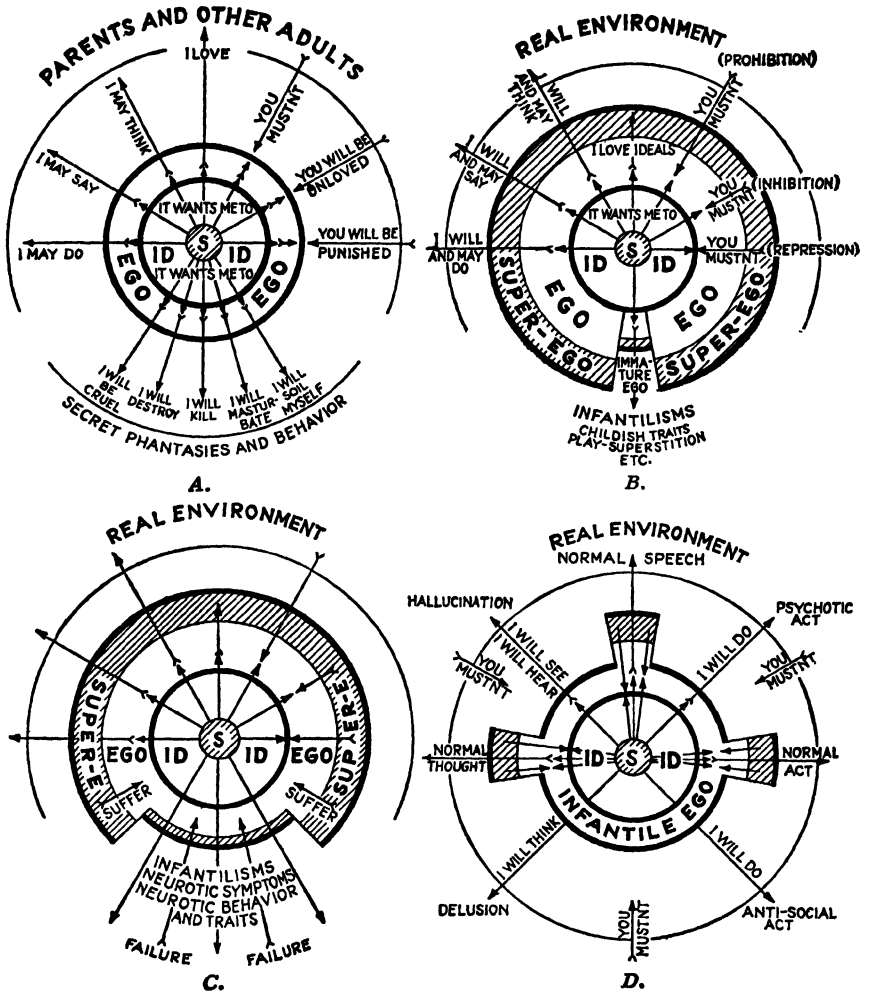


FIG. 39.—Diagrammatic illustration of relations of Id, Ego and Super-Ego.

A, in infancy there is no Super-Ego, and the Ego tends to carry out the demands of the Id unless the environment interferes (denoted by arrows pointing inward).

B, in normal adults, the Super-Ego forbids certain acts, thoughts, etc. However, almost every Super-Ego has some gaps which permit childish reactions on occasion.

C, the neurotic adult has much wider gaps in the Super-Ego, so that many actions do not conform to demands and expectations of the environment, but only to desires of the Id.

D, in the psychotic, the Super-Ego is fragmentary, and the Id is relatively unrestrained. Hence delusions, hallucinations and dissociated acts characterize the psychotic. (*From Hendrick*, 1934.)

tive term for those phases of psychological activity which cannot be consciously observed. The relation of conscious to unconscious phenomena has been compared to the iceberg which is 90 per cent submerged and only 10 per cent visible. Figure 40, taken from Healy, Bronner, and Bowers (1931), gives an illustration of the possible relations of conscious, pre-

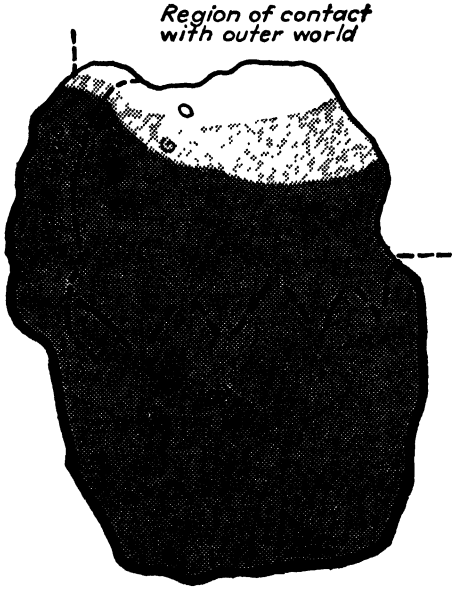


FIG. 40.—The "iceberg" analogy of conscious-unconscious relationships. The Id is represented as entirely unconscious (heavy shading), while even Ego and Super-Ego are mainly unconscious. The Ego, in its function of carrying out demands of Id and Super-Ego, represents most of the conscious and also most of the region of contact with the outer world. (*From Healy, Bronner, and Bowers*, 1931.)

conscious (accessible to memory, imagination, etc.) and unconscious (inaccessible) material.

Figure 40 also serves to point out that the conscious-unconscious division does not correspond to the divisions of Id, Ego, and Super-Ego which we have described. Originally Freud thought of the Id as the Unconscious and the Ego as conscious. Later experience convinced him that parts of Ego and Super-Ego were unconscious. The Super-Ego, for example, which is made up of the individual's identification of himself with his social controls, becomes largely composed of unconscious material. It is obvious, for instance, that these limitations and taboos begin to be acquired during the first year of life, and much of this childish learning occurs at a preverbal level. This material (the demand that

certain desires be repressed) probably never is clearly conscious in the child's mind and quickly becomes completely unconscious. According to this view, the Id is never conscious—a view which seems incorrect. The raw feelings, such as sexual desire, destructive hatred, and so on, seem to be conscious manifestations of impulses belonging to the Id category. It is, however, clear that the vast majority of our "savage" impulses have been so completely repressed that they never reach the light of consciousness.

Development of Psychosexuality.—Certain facts regarding the development of the sexual impulses, particularly as regards their objects, are important for our consideration of the development of the personality. These facts do not peculiarly belong to psychoanalysis, although most of them are discoveries of that group and the way in which we shall present them (for the moment) will be in psychoanalytic terminology. Most of the early stages are not to be interpreted as specifically sexual, but as libidinous in a general sense as pleasure-seeking responses.

Infantile Sexuality.—One of the facts about which the Freudian school builds its system is the observation that sex, as adults conceive it, is only a differentiated aspect of a generalized set of reactions present from birth onward. The infant manifests pleasure to stimulation of the lips, the nipples, and the genitals. Later he shows pleasure in his excretory functions, and may cause no end of trouble to the adults who are trying to teach him proper habits. When he learns that people are divided into two classes, he manifests great interest in sex differences and asks questions which cause inhibited adults a great deal of embarrassment. He expresses the wish that his father would die so that he could marry his mother and live with her forever after, and have children with her. All of these reactions are common; in fact, a child who did not manifest most of them during the first five years of life would seem peculiar.

It is, however, a tradition in our culture that all children are pure and "innocent." Wordsworth wrote, "Heaven lies about us in our infancy," giving expression to this view of the infant's relation to an adult ideal of perfection. Hence adults become quite angry when psychologists make the statement that children have sexual impulses. Actually, the amount of emotion produced in adults is proof of the importance of infantile sexuality. If infantile sexuality did not exist, it would be a matter of indifference to the individual, and he would not become angry when it was mentioned. But, having been forced to give up these pleasures in infancy by the stern process of training, we now become emotionally disturbed at being reminded of them—just as a salesman will become angry when reminded of "the big sale that got away."

Love Relationships.—Instead of speaking of the sexual development of the child, it may be clearer to speak of the development of love relationships. Most of the child's love is turned inward upon himself. He is primarily interested in his own pleasure, and much of his behavior is autoerotic, *i.e.*, self-stimulation of erogenous zones. However, we find early in life evidence of strong attachments to specific individuals and the anticipation of pleasurable stimulation from them. This affective response we have already labeled "love." The child is positively conditioned to his parents, because both of them have ministered to his pleasure and are by their presence associated with almost all of his pleasures. But it is clear that, during the first months of life, the preferred parent for children of both sexes is the mother. Later, the girl child is likely to shift to a preference for her father, while the boy continues a strong preference for his mother.

This unequal love is repressed by social training. A typical incident is the following, quoted from a college girl's autobiography:

"I recall plainly an incident that occurred before I was four years old, since it happened in my first home. I had learned the baby trick of measuring love with my hands. My parents asked me one evening how much I loved my father, and I stretched my arms so far that they almost touched in back of me. Then, when they asked how much I loved my mother, I measured a tiny distance with my forefingers. Immediately I saw I was wrong, after one glance at my mother's face. So after that I tried very hard to keep them more nearly alike, though as I recall it, a little more preference was always shown in his favor. I never liked to sit close to my mother after I passed the baby stage, but there was nothing I liked better than to sit on my father's knee, and tell him secrets, and have him talk to me."

The significance of this unequal attachment for the parents, and the repression of the preference for one parent, is said by Freudians to lie in the development of the Oedipus complex, which we shall describe in a later paragraph.

Hate Relationships.—Although Freud eventually decided that impulses of hostility were separate from the sexual impulses, his treatment of hate and attempts to injure others indicates that he considers these activities intimately related to love and sexual behavior. The young child loves his parents, but he hates each of them for monopolizing the attention of the other when it might be granted to him alone. These hate impulses are sometimes given overt expression, as when the little boy says, "I wish daddy would die so I could marry you," but usually they are repressed and obtain expression through substitute activities.

In most cases, the child develops ambivalent love-hate attitudes be-

cause of this fact. He loves his parents for the pleasure they give him, but hates them when they interfere with the pleasure he might get from someone else. This ambivalence often leads to personality problems in later life.

The Oedipus Complex.—The developing love-hate reactions to one's parents are said to reach a climax at about the fifth year of life. At this time resistant, negativistic behavior has been found by various observers to be very high. The love need for the cross-sexed parent is expressed more or less openly, and the rivalry toward the other parent and toward other children in the family may be very keen. General emotional upset is commonly observed. The child shows a pronounced increase in fantasy, and expresses a desire to have children, etc. This period of emotional disturbance is described by analysts as the period of the Oedipus complex.

Failure successfully to resolve the Oedipus situation leads to various problems. Frequently we find a grown man who successively falls in love with women who are much older than he, and who resemble (in one way or another) his mother. Again we find individuals who revolt blindly against any authority, and learn that to them authority is but a symbol of the parent whom they hated in childhood.

Parent Identification.—The normal outcome of the Oedipus situation, if no traumatic conditions intervene, will be the abandonment of the child's open demand for the opposite-sex parent, and its replacement by an attempt at identification with the like-sex parent. This identification has been prepared usually by fantasies going on during the preceding stage, when the child has dreamed of himself as taking the place of one parent and marrying the other. Now, giving up hope of directly satisfying his desires, he begins to imitate the like-sex parent and thus by strategy gain the affection of the other parent. As we have frequently remarked, one of the fundamental facts in human behavior is that we behave toward symbols as though they were real and, by placing ourselves in substitute-situations, obtain almost as much pleasure as from the originally desired condition.

The resolution of the Oedipus complex and the identification with the like-sex parent marks the end of the infantile sexual period. The child now progresses into a latency period, during which his interests are directed away from his own body and the possibilities of pleasure from contact with his parents, onto pleasures with friends. Because of his identification, his friends at this stage will be mostly of the same sex, and this is sometimes called the normal homosexual period.

Normal Adult Sexuality.—After the latency stage—roughly from the fifth year of life until puberty—the individual regains the normal inter-

est in the opposite sex. This renewed interest is determined by social and biological conditions. If no major interferences with the course of sexual development have occurred, the person now enters a stage of normal adult sexuality in which his quest for pleasurable activity follows a definite course, pretty well prescribed for him by the social group of which he is a member.

Relation of Infantile and Adult Sexuality.—In many manifestations of adult sexuality we find hang-overs or vestiges of infantile sexuality. As examples we might mention the pleasures associated with the lips, the breasts, and other nongenital erogenous zones; perversions in which sexual and excretory structures are interchanged; and so on. Some of these persistent infantilisms are so common as not to be considered abnormal; others, more rare and subject to greater social disapproval in our particular group, are considered "perverted." But it will help the student to keep a calm, scientific attitude toward problems of both normal and abnormal behavior if he remembers that these so-called "perversions" are perfectly normal in infants.

Various kinds of interferences with normal development of this series from infancy to maturity may result in personality abnormality. Infantile fixation on the mother or the father, of course, is seen in some adults. Homosexuality is considered a failure to develop to the normal heterosexuality of maturity. Unpleasant experiences with members of the opposite sex about the time of puberty may frighten the youth back to the homosexual mode of pleasure seeking. Any regression or failure to advance is a personality problem.

Critique of Freud.—Modern psychology owes many debts to Freudian theory. The emphasis upon personality as a developing process and insistence upon a strict determinism of psychic process are outstanding among these. The dynamic quality of acquired attitudes (*cf.* the Super-Ego) is an important contribution. The importance of inner conflict in determining personality patterns was first demonstrated by Freud. The role of unconscious impulses is also an original and significant formulation.

On the other hand, many psychologists and psychiatrists find the whole, or substantial parts, of Freudian theory unacceptable.[6] Particular objection is raised to the extreme emphasis upon the infantile urges as determinants of adult behavior. It is only in relatively recent years that analysts

[6] The median attitude of a group of about 300 psychiatrists, neurologists, psychologists, and psychoanalysts polled by Myerson (1939) could be represented as "favorable but somewhat skeptical." Not more than 25 per cent could be counted as "wholeheartedly or in general" accepting Freud's views; on the other hand, less than 10 per cent completely rejected Freud and his works.

have come to concede that the present environment of the adult may have some significance in connection with his neurosis. The broadening of the concept of psychosexuality to the point that it becomes virtually identical with pleasure seeking or goal seeking of any kind is also questionable. Certain other criticisms have been noted in discussing various of Freud's ideas.

Whether or not one accepts the validity of these objections, he must concede that Freud has been the most influential figure in dynamic psychology. All psychologists, even those who write books to prove his errors, pay tribute to his importance.

Alfred Adler

Developments from Freudian Theory.—Freud had many students, several of whom have since deviated from the original position of their teacher and propounded other theories of motivation. Most of these do not vary by a sufficient margin to merit presentation in this volume, where we are seeking at the most a general outline of the problem of motivation. Adler, however, has developed a view which is markedly different from Freud's, and which has been of considerable importance in shaping the ideas of many American psychologists.

The essential postulate of Adlerian psychology, in terms of which the rest of it takes on meaning, is his insistence on the "life plan" of the individual, or the purpose, the goal, the "end in view" which determines reactions. Adler's psychology, therefore, is a purposive psychology, in contrast to the views of Tolman and Freud, who deny purpose as a significant factor (except in the sense that past experiences may direct our behavior along lines which eventually prove to be useful).

According to this view, circumstances early in life focus attention on certain relationships between the individual and his physical-social environment. An individual who is small, physically inferior, and feels unnoticed may shape his whole life in terms of this relationship. A voice defect, a facial blemish, or some other characteristic may be the feature determining his reaction to his environment. The important matter, from Adler's viewpoint, is that the individual, usually unconsciously, sets up a certain "life plan," which is directed in such a way as either to overcome the defect or to compensate for it. The setting up of this goal or direction in life gives meaning to events which might otherwise fail to make sense. We have commented in previous chapters on such processes as imitation, identification, etc. It is apparent that while these processes are sufficient to explain the fact that a child adopts the characteristics of someone in his real or imaginary environment, they do not explain the selection of one

rather than another person as the object of such an imitation or identification. Some selective process is at work. Adler believes that this is the unconscious "life plan" determined by felt inferiority in some physical or social relationship.

The Will to Power.—The driving force which impels the individual along his life plan is known as the will to power. In its nature this seems to be largely a matter of available psychophysiological energy, like Freud's libido. The difference is largely in the aims or objects to which it becomes selectively attached.

This may best be illustrated by an example. Starting on the physiological level, Adler found that in the case of paired or related organs, deficiency of one was often compensated by increased activity of the other. Thus a defective kidney on one side was found to result in hypertrophy of the other. The same observation on other organ systems convinced him that there is a general principle in physiology of compensation for inferiority.

Now this principle of compensation for inferiority can be demonstrated on the implicit level as well. A person who is physically handicapped will be found to daydream of great athletic prowess. Boys who are sexually underdeveloped are often found to boast of their virility, their conquests, etc. These examples show implicit ("mental") compensation for physical or social inferiority. Compensations of one sort or another for feelings of intellectual inferiority are also common.

Adler believed, therefore, that the will to power was a fundamental drive, and that it was thwarted by some inferiority (in his early writing, a *real* inferiority; in later volumes, a *real or imagined* inferiority). This thwarting focused the attention of the individual upon his defective organ system, and a life plan was laid down to compensate for the defect. Sometimes, he concluded, this compensation might be direct (*cf.* Demosthenes's alleged cure of his tendency to stammer) or it might be indirect (as when a boy who is crippled physically prepares himself for a literary career). The important thing is that the will to power must be satisfied, and the life plan is determined with this end in view.

Complete Masculinity.—According to Adler (1924), the ultimate goal of every individual is the attainment of what he calls complete masculinity. This assumption was based on studies mainly of neurotics who showed behavior of this sort. The weak, inadequate man strives for full and complete virility. The woman, however adequate she is as woman, feels inferior or deprived of something (the male organ) and strives to overcome her fate of being feminine. This striving Adler calls "the masculine protest." In illustration one thinks easily of many women who show

by their behavior that they are seeking a masculine, rather than a feminine, goal. Since men have a favored position in our economic and political structure, it is not surprising that this often happens. We believe, however, that Adler exaggerates both its frequency and the extent to which biological factors are involved. The social and economic advantages of being a male, at least in Western culture, speedily come to the attention of most girls. It seems safe to predict that, as these handicaps to women are gradually abolished, the "masculine protest" will likewise become rare.

The Inadequacy of Childhood.—One field in which Adler's contribution has been of real value is the treatment of certain problems of childhood. Adler emphasizes, in his treatment of child behavior, the feeling of inferiority and inadequacy which oppresses even the normal child. Physically insignificant and intellectually weak as compared with adults, the child has no outlet for his will to power. Thus he may show timidity, withdrawing, and seclusiveness; or, making a desperate effort to assert his individuality, he may resort to rebellion, exhibitionism, bullying smaller children, or even delinquency. Some adults fail to resolve this conflict, and continue to show these infantile reactions.

The Adlerian approach to such problems is to provide suitable outlets in real situations for the child's will to power. These must, of course, be within his physical and intellectual scope. They can gradually be widened to provide compensations or sublimations of a sort appropriate to his age and social development.

The Importance of Social Climate.—A major criticism of Adler is found in his excessive emphasis on organic factors. Thus he writes of feminine psychology as though all women desired biological equality with males, ignoring the social, political, and economic factors involved in "masculine-protest" behavior.

Similarly, his discussion of the effects of crippling and physical handicaps generally reads as if personality distortion were an inevitable accompaniment of such conditions. Actually, as Barker (1946) and others have shown, the effect of a physical handicap varies according to social attitudes. If the child and his parents interpret his handicap as a hopeless barrier to normal life, psychological stunting will result. In families where the handicapped child is encouraged to take an optimistic view and develop the resources remaining to him, very satisfactory personalities result. The same observation has been made with many physically disabled adults. Much depends on the way the injury is perceived and the extent to which the environment encourages constructive, independent ways of behaving.

Positive View of Dominance.—While Adler seems to consider the will to power an innate need, his discussion of its operation is couched almost entirely in negative terms, *i.e.*, as a reaction against inferiority or inadequacy. He posits some defective organ system or psychological function, about which the will to power is mobilized to deny or disprove the inferiority.

Several psychologists have reported experimental and observational data which suggest that there is a positive dominance drive, an innate tendency to achieve a status superior to others of the same species. Murchison (1935) and Schjelderup-Ebbe (1935) have studied the fighting behavior of chickens, which continues until a stable dominance status, or "pecking order," is evolved. This need to establish dominance seems independent of food, sex, and other drives, although it is intensified by injections of male sex hormone, and roosters so treated will actually achieve higher dominance status in the group of males.

Maslow (1936) has shown that monkeys and anthropoid apes manifest a dominance drive; and he feels certain that it is not a derivative from the hunger, sex, or other needs. Projecting his work into the human field, he has published a number of studies (1939, 1942) on the dominance drive at this level. While human material is inevitably more complex than that obtained by observing animals, he believes that the same generalizations hold for both investigations.

These contributions do not detract from the value of Adler's theory, but simply expand it as to field of application, while modifying it as to theoretical emphasis. In dealing with normal personalities, the psychologist constantly encounters behavior which illustrates the importance of dominance or the will to power as a major form of human motivation.

Kurt Lewin

Gestalt psychology has provided numerous insights into the phenomena of perception, learning, and thinking, and extensive use of Gestalt contributions has been made in this volume. In general, the Gestalt group has not made comparable progress in the field of dynamics. Kurt Lewin and his students, however, have offered some novel ideas on the dynamic aspects of personality which merit special notice.

Lewin's unique approach arises from his persistent attempt to describe behavior in terms of the immediate field (behavioral environment). This means that, whereas Freud and Adler lean heavily upon the past history of the individual to explain his needs and motives, Lewin stresses the concept that "motivation is always contemporary." There are obvious

weaknesses in such a view; it is plain that an individual's strong desire for a certain food, a certain sex object, political power, wealth, or prestige must be related to his past experiences. Lewin covers this point by introducing memory into the behavioral environment as a change in our manner of perceiving external reality.[7] Whether this interpretation is adequate, or whether past history cannot be completely telescoped into the present in this summary fashion, is a point which may never be resolved.

Fundamental Concepts.—Lewin (1938) organizes his treatment of motivation around the concept of *force*. Force, in this usage, is a logical construct and no assumptions about driving energies are made. Lewin notes that physicists observe movement and use force as a convenient concept without mystical implications; he follows their pattern. Whenever a man engages in any activity, psychological force is involved. It is not necessary to define the force as a metaphysical concept.

Since force exists only in relation to movement or activity (in topological psychology, all activity is represented by movement in a behavioral field), it is clearly a field function; it is determined by the existing relations of organism and environment. The presence of *tension* within the individual and of a *valence* in the environment are the correlates of psychological forces.

The concept of *valence* as employed throughout this volume is substantially in agreement with Lewin's usage. His formal definition reads as follows:

"A region G which has a valence ($\mathrm{Va}(G)$) is defined as a region within the life space of an individual P which attracts or repulses this individual." [8]

Conspicuously Lewin avoids the question of hereditary or environmental determination of valences. "The concept of valence as defined," he writes, "does not imply any specific statement concerning the origin of the attractiveness or the repulsiveness of the valence." [9] In this respect we have extended our interpretation of valence beyond Lewin's restrictions. It is our conception that valence is a sign function related to need gratification (positive valence) or avoidance of harm (negative). Valence would thus be a function of learning. Since the major function of valences

[7] As can be readily noted, we have adopted Lewin's viewpoint in this respect; *cf.* the treatment of changes in the person's perception of emotion-arousing stimuli, Chaps. VI and VII.

[8] Lewin (1938), p. 88. Reprinted by permission of Duke University Press, publishers.

[9] *Ibid.*

is to *guide* the person in his search of need satisfactions, this extension would seem harmonious with Lewin's point of view.

Tension, as the concept is employed by Lewin, is somewhat more abstract, less tied to muscular and visceral reactions, that might be inferred from our usage in the preceding chapter. Lewin considers that every activity has its characteristic tension, and the construction of a plan for a future activity also is thought to set up a tension, which persists until the act is carried out.

Under certain circumstances the tension of waiting to perform a critical action is introspectively clear. During the process of acting—especially if close attention is required—considerable muscular tension develops. Thus a student solving difficult mathematics problems often finds his facial, neck, and shoulder muscles quite tense.

In other instances the tension corresponding to an act in process is not introspectively observable, yet experiments can demonstrate its existence. Lewin notes, for example, that a child who is playing one game will not readily allow himself to be drawn into another, although on a different occasion the new game might be very attractive. This suggests the existence of a *boundary* enclosing the system currently dominating behavior.[10]

The Interruption Technique.—One of the experiments on the tension phenomenon is that employing interruption of various activities (often called the Zeigarnik technique, because it was first reported by Zeigarnik, a student of Lewin). Subjects were given a series of small tasks to perform; some they were allowed to complete, while others were interrupted. On a memory test, the interrupted tasks were recalled considerably more often than were completed tasks. This was interpreted as showing the persistence of a tension relating to these unfulfilled assignments.

An even better illustration of this point comes from a study by Ovsiankina.[11] After interrupting her subjects in certain of the assigned tasks, she left the laboratory and, through a one-way screen, watched their free performance. Many subjects picked up the incompleted materials and finished off the job—again an indication of a persisting task tension.

[10] In the topological diagrams which we have adapted from Lewin (*cf.* Fig. 5, page 68), the boundary is considered as enclosing a region which represents some behavioral activity or organized system. Such units resist change. The regions which can be represented by such a cross-sectional diagram are, however, probably larger and include various specific acts of the type under discussion here.

[11] The studies by Ovsiankina and Zeigarnik, as well as others from the Lewin laboratory, are summarized in Lewin (1935).

Substitute Goals.—A perennial problem in the psychology of motivation is the extent to which a new activity can sublimate energy aroused by a need which did not attain satisfaction. Is it possible, for example, that writing romantic literature is really a sublimation of sexual energy left unexpended because of frustration in love? Lewin's interruption technique offers a tentative, small-scale approach to this problem.

After subjects were interrupted in one task, they were given another task to perform. Lissner found that the "substitute value" of the new task could be measured by the extent of resumption of the interrupted activity. If the original job, for example, was to model a dog in plasticine and the substitute was to make a snake (a much easier assignment), 85 per cent of her subjects later resumed work on the dog. But if the interpolated act was modeling a bird (difficult substitute), the resumption of the prior task occurred in only 30 per cent of the subjects. Thus we infer that some tasks (sufficiently similar and sufficiently difficult) can provide effective outlets for the tension set up by the preceding task assignment; but in other cases the tension persists and causes resumption of the interrupted activity.

These experiments are of particular interest because they bear on very practical problems in the field of personality; *e.g.*, providing substitute outlets for children, developing sublimations in delinquent individuals, replacing a less desirable by a more desirable mode of emotional expression. In the determination of which acts will be tried, imitation, suggestion, and trial and error will operate. But the *success* of the new activity in relieving the tense system will determine whether it becomes an established part of the personality.

Level of Aspiration.—Lewin is also responsible for the introduction of "level of aspiration" into our terminology. As was pointed out in Chap. IX, the individual builds into his Self-image a picture of himself not only as he is, but also as he would like to be. Lewin assumes, apparently, an innate need somewhat analogous to Adler's will to power, a need to elevate the Ego above its present status.[12] This means that any perceived discrepancy between the individual's performance and his inner picture of appropriate performance will create a tension releasing effort toward the higher goal.

The experimental data on this topic were reviewed in Chap. IX. At

[12] In his most recent contribution on this point [Lewin, Dembo, and Sears (1944)], he has apparently discarded the inner need to raise the status of the Ego, or at least has clearly related it to cultural pressures. He has also worked out systematically the role of the individual's estimates of his probabilities of success and failure, as an important element in the level of aspiration.

that time it was pointed out that the formulation of general laws of behavior in this situation encountered difficulties. Not all subjects perceive the environment in the same way. Failure to achieve a goal does not automatically set up a tension; if the situation is perceived as hopeless or beyond reasonable expectation, there may even be a diminution of effort. We do not know, at present, nearly enough about what determines a person's level of aspiration, although it is plainly an important factor in his dynamic make-up.

The Role of Barriers.—Why does the grass on the other side of the fence look more attractive? Lewin has proposed the generalization that "barriers enhance valence" or, in simpler words, that a goal object looks even more attractive when an obstacle bars us from attaining it. Wright (1937) conducted various ingenious experiments to verify this principle. Children, for example, will rate a toy as more attractive when it is locked in a wire cage than when it is freely available for play. Students in a cafeteria would reach all the way to the back of the counter to get a slice of pie which objectively was no larger than that nearest the tray. In general, barriers were found to enhance positive valences. If, however, a barrier was perceived as impenetrable—as a boundary, so to speak—then the valence of the object beyond the barrier declined.

Other studies have related to the effect of various conditions upon valence, upon the persistence of tension, and upon aspiration level. Citation of these would not add materially to an understanding of the general theory.

Critique of Lewinian Theory.—The chief defect of this theoretical contribution seems to lie in the failure to analyze more completely the nature of the concepts, valence and tension. While occasional reference is made to biochemical and muscular factors as bases for these phenomena, no systematic treatment has yet been published.[13]

We note also a tendency to ignore the fundamental tenet of field theory—*i.e.*, that behavior is determined by the total field—in some of his own work and that of his students. The Zeigarnik effect (superior memory for interrupted activities) is treated as a general law, but Abel (1941) and others have shown that it does not occur under certain conditions. Thus we assume that most of Lewin's generalizations about moti-

[13] In our usage of the term "tension" (*cf.* pp. 262–263), we have deliberately gone beyond Lewin's custom in asserting that tension is ultimately muscular in character. This encounters difficulties when applied to certain phenomena, *e.g.*, the tension underlying an ambition to become a physician, which may persist for years. Nevertheless, we prefer this horn of the dilemma to that which leaves the nature of tension completely unexplained.

vation are true in certain environments, but that there may be determining variables which have not yet been isolated.

On the positive side much more can be said; most of it, indeed, has been said by implication in the usage that we have made of Lewin's concepts and mode of thinking throughout this volume. The psychoanalysts had stressed the persistence of infantile motivation in adult life so much that the Lewinian emphasis on the immediate behavioral field came as a highly desirable corrective. As will be shown later, students of personality are working toward a synthesis which will incorporate the best of both Freudian and Lewinian doctrine.

Gordon Allport

Another protest against the psychoanalytic emphasis upon adult motivation as simply an extension of infantile tendencies comes from the so-called "personalistic" school, best represented by William Stern and Gordon W. Allport. Since Allport's view seems somewhat more internally consistent and less cluttered with dubious assumptions about heredity, it will be sketched briefly here.

The first fact which must be emphasized in connection with dynamics, Allport holds, is that every motive must be understood in relation to the person motivated. In other words, he rejects, except for young children, the significance of lists of tissue needs, appetites, and aversions, libidinal aims, and the like. A thoroughgoing personalistic psychology must shift emphasis from common motives to unique motives. Every personality has its own individual dynamic pattern, which is lawful but not necessarily identical with that of any other individual.

Allport does grant that there are many similarities in motivation among persons living in the same culture, but he is inclined to stress the learning process to account for this. Given certain institutional patterns and a common physical environment, each person must arrive at a solution having some elements in common with those of his fellows.

He is not, however, willing to concede that the motivation of any mature personality is "explained" by referring it to an "instinct of submission" (McDougall), a desire to return to prenatal life (Rank), or a "wish for security" (Thomas). As he accurately points out, these psychologists are actually dealing with mind in general, not with some specific person. He makes another telling point when he notes the extreme inconsistency among these varied lists of universal human motives, which suggests strongly that none of them is correct.

Allport recognizes the potency in infants and young children of tissue needs and environmental coercion. His break with what we might call

the behavioristic trend of most American psychologists comes on the question of the extension and expansion of these infantile urges into adult needs and desires. He insists that there is a true *functional autonomy* of adult motivational systems. In contrast to Freud, who feels that he has not interpreted adult motives until he has related them to infantile tensions—and indeed would argue that psychotherapy is impossible without establishing this relationship correctly—Allport holds that the tie between adult and infant is historical but not functional.

As an illustration of Allport's principle we might choose the example of a child learning to play the violin. At first he may hate the instrument and resent the interference with his free play. He may be induced to practice by gifts of money, special sweets, praise, and other rewards, no less than by punishment and criticism. He is pushed by parental and teacher pressure into developing skill on the instrument. Years later, we find that he loves the violin, resents being separated from it, will put forth vigorous effort to achieve opportunities to play, and gives every evidence of personal enjoyment. The adult pressures are long since gone; the enjoyment of the instrument has become *autonomous*. It is now an independent, self-sustaining need of the adult personality.

The fundamental question which divides exponents from critics of functional autonomy is simply that of the break between the infantile and the adult motive. Allport insists that this is not a mere alteration, but a true transformation. He holds that the adult need has *supplanted* the infantile urge. In the language of philosophy, adult motivation is an *emergent* phenomenon.

Critique of Allport.—As will be made clear in the subsequent chapter, our conception of motivation is congenial with that of Allport, in that we reject the lists of common motives as having utility in the study of adult personality. There is, however, a serious logical dilemma in his insistence upon a true transformation of infantile into adult motives.

Suppose that we consider again the instance of the violin player mentioned above. In the beginning, the wish to play the violin for personal enjoyment does not exist. Certain other desires (for money, for candy, for cuddling and praise, to avoid pain, to escape criticism) are available to the parents and are used to push the child along the path of musical development. By repetition of these pressures, the act of playing the violin is often jointly present with positive valences, while that of refusing to play is associated with negative valences. A gradual process of learning occurs, as the musical activity comes to acquire positive valence in its own right. Ultimately the adult shows the mature, full-blown enjoyment of music which was postulated for this particular person.

Now the crucial question is, At exactly what point did this transformation occur? The learning activity is a continuous process. There was no sudden change from reluctant submission to enthusiastic self-impulsion. We do not find, in such instances, that on Thursday coercion is necessary and on Friday there is an inner need for musical expression. The drastic change in motivation is clear if we compare the child with the adult; but if we follow the whole sequence, we are unable to locate a definitive point and say, "Here the transformation of motives took place." We are, in short, inclined to doubt the reality of the concept of transformation of motives, while agreeing with the essence of the theory, which is that each adult personality has its own unique dynamic pattern.

Rapprochement

The psychoanalytic theory, as represented by Freud and Adler,[14] the Gestalt theory as developed by Lewin, and the personalistic theory, here illustrated by Gordon Allport, provide the outstanding current theories of dynamic psychology. It is, therefore, encouraging to observe that exponents of these views seem to be drawing substantially closer to each other in many respects.

Rosenzweig (1944) has pointed out that the schools differ with regard to emphasis and point of view, rather than irreconcilable principles. Analyzing the problem in terms of three features—objectives, methods, and major concepts—he finds that the differences are appropriate to the framework adopted by each school. "The three personologies have evolved certain conceptual tools," he writes, "which, while conflicting at certain points, are not so much inconsistent among themselves as they are consistent with the objectives they are intended to serve and the methods that have led to their construction."[15]

These lines of approach can be brought into clear relation with one another by a simple diagram (Fig. 41). The scope of the psychoanalytic school is chiefly the study of the individual personality in relation to its personal past or, in other words, "the personality as a *biographical Gestalt.*" Lewin and the Gestalt school generally consider their problem as the study of the personality embedded in (actually, an organic unity with) the behavioral field of the immediate environment. Allport and the

[14] For lack of space we have been forced to ignore the interesting developments of modern psychoanalytic theory, *e.g.*, by Horney (1939), Fromm (1941), Kardiner (1939). The development of these authors is along the lines of the rapprochement here sketched.

[15] Rosenzweig (1944), p. 255. Reprinted by permission of the American Psychological Association, publishers.

personalists would narrow the scope to the study of personality *as a unique Gestalt within its own boundaries.*

That this rapprochement is genuine is indicated by a number of observations: the concern among the "social psychoanalysts," such as Fromm, Horney, and Kardiner, for the structure of the Ego and the role of immediate environmental problems in neurotic personalities; the adaptation of Lewinian techniques by both analytic and personalistic psychologists; and the development of holistic approaches, such as that of

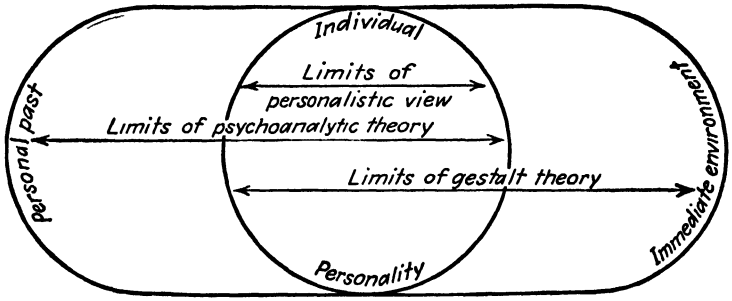


FIG. 41.—Converging approaches to personality and motivation. Psychoanalytic theory focuses on the individual personality in relation to its past history; Gestalt theory on the personality in relation to its immediate environment; the personalistic school on the personality considered as somewhat independent of either its history or its surroundings. (*Modified from Rosenzweig,* 1944.)

Angyal (1941), which integrate all three schools into a new and larger framework. This unifying trend looks distinctly encouraging.

SUMMARY

In this chapter we have sketched the views on motivation theory of four outstanding psychologists, representing three distinctive schools of thought. Inasmuch as the presentation is itself a summary, further summarization is hardly practicable.

The psychoanalytic school is characterized chiefly by its focus upon the personality as a product of biography and upon the necessity for comprehending the infantile motives expressed by adult behavior patterns. Topological psychology focuses upon the relation of the individual to his immediate environment, the behavioral field, and the forces generated by the relation of inner tensions and external valences. Personalistic psychology insists that the individual is to some extent independent both of his biographical past and his immediate environment—that behavior is a product of the unique dynamic pattern of each personality. While the three major theoretical approaches to motivation thus seem to be in

conflict, evidence appears that a unifying trend has been set in motion, and that the differences are often matters of emphasis, not of incompatible principles.

Suggestions for Reading

A selection of Freud's own writings which offers interest without excessive technical detail will be found in *The Basic Writings of Sigmund Freud* (Modern Library). A good simplified presentation is Peck's *The Meaning of Psychoanalysis;* better, but not simplified, is Hendrick's *Facts and Theories of Psychoanalysis.* Adler's *Neurotic Constitution* is probably his best work; in *Understanding Human Nature* he has popularized his own doctrine. Lewin is best represented by his *Dynamic Theory of Personality,* although later technical monographs clarified many of his views. Allport's *Personality: A Psychological Interpretation* gives a clear and persuasive statement of the theory of functional autonomy.

CHAPTER XVI

A CULTURAL INTERPRETATION OF MOTIVATION

As can be seen from the two foregoing chapters, the field of human motivation is complex and confusing. Hardly anyone will question the basic role of bodily needs and the visceral tensions with which they are associated; yet any attempt to explain the elaborate structure of the individual personality as nothing but the expression of physiological drives inevitably looks oversimplified and unsatisfactory. The Freudian theory is certainly complex enough to be equal to the personality problem. Many critics, however, feel that it is full of assumptions which are unjustified. The theories of Adler, Allport, and Lewin emphasize certain motivational problems and ignore others.

In a complex area such as this, it is possible to make various arrangements of the material, each of which may appear valid to a certain number of experts. The ultimate criterion of validity has not yet been discovered. A theory of motivation may justify itself in terms of the elimination of unnecessary assumptions, close adherence to experimental data, harmony with other aspects of a theoretical system, and so on.

We believe that one way of bringing order into the ambiguous mass of observations coming under this category fits particularly well with the general interpretation of personality which has so far been favored in this volume. This approach to motivation is closely oriented to laboratory experiments and also to the facts of sociological and cultural observation. We propose, therefore, to outline a theory of motivation in terms of *expectancy*, *perception*, and *judgment;* in other words, treating motivation not as a radically different function from behavior and perception, but merely as the dynamic aspect of the same habits and traits which have been treated earlier in this volume.

Some Basic Considerations

Every theory of motivation must recognize the fundamental role of the bodily needs and the visceral tensions to which they give rise. While hunger, thirst, and escape from pain are remote from ambition, conscience, and religious values, an adequate theory must have room for all

of these. Equally we must concede that a view based solely on the dynamics of visceral tension will have a hard time bridging the gap to these higher order dynamic functions.

An adequate theory must also pay adequate attention to the role of the environment. This means providing a place for the dynamic function of perceived objects—not merely in the sense of food and sex objects, but also as means to professional success, political power, or aesthetic enjoyment. It also involves fitting into the scheme the operation of social expectancy. More than professional psychologists, the sociologists and anthropologists have recognized the coercive effect of cultural demands upon the individual and the extent to which inner pressures are merely reflections of social requirements.

This means that an acceptable theory of dynamics must recognize the importance of learning in the transformation of needs from simple to complex forms. A major weakness of Freudian theory has always been the glaring absence of an adequate analysis of the learning process as a connecting link between the observed adult neurotic need and the inferred infantile basis. Relations have been asserted on the basis of dreams and associations, but little has been done to justify these assertions by reference to the learning sequence.

It is equally clear that we cannot go to the other extreme and locate all motivating factors in the external world or the world of concrete perception. The organism does not wait for appropriate stimuli before being energized into action; on the contrary, there is often an active search for a specific stimulus or class of stimuli which are considered adequate to a felt inner need. Motivation is an organism-environment relationship, rather than being exclusively a function of either.

Implicit in these points is the acceptance of the view endorsed by Lewin and Allport that "all motivation is contemporary" and that adult needs, while genetically related to infantile demands, are functionally independent of them. At the present limited stage of psychological development, however, we cannot describe some factors in the motivation of adults except by giving their history.

Motivation as Dynamically Related Perception

Throughout this volume we have treated the ultimate definition of personality as "the individual's unique pattern of beliefs and expectancies about himself in relation to his environment." This conception has been applied to the description of personality, traits, attitudes, values, character, and the Self. We now propose to extend it to the dynamic phases of personality.

Visceral Tensions and Valence.—When the infant becomes hungry, an unpleasant state of tension sets off crying, search activities, and visceral changes. A suitable source of food will satisfy this need and relieve the unpleasant tension. After a few repetitions, the perception of this food source will carry a positive valence; it is perceived as a *good* or desirable object.

We do not concede that there are any innate valences. This means that we shall use the concept of valence purely to identify a *sign function;* a perception cannot have sign value inherently, but acquires it as a result of experience. Sensory qualities which set off states of agitation without learning (*e.g.*, extremes of warmth or cold) are not considered to be valences, but signals of the approach of such stimuli would acquire valence.

The effectiveness of a valence will depend upon its origin and upon the presence of other valences and tensions. A valence which is based exclusively upon the hunger tension will not function in the young child except as hunger is present. A negative valence based on pain, however, will set off its own characteristic inner tension at any time and is thus more completely autonomous than the positive valence. In general, negative valences based upon the "aversions" and positive valences based upon "second-order appetites" (*cf.* Chap. XIV) will be effective with little regard for existing tensions; those based upon hunger and thirst will not energize the organism unless the corresponding inner tension is operative. Thus animals will exert effort to reach a food box when hungry or a water bottle when thirsty; but these familiar goal objects manifest little valence when the appropriate tension is absent.

Cross-conditioning and Valence.—Actually, there is probably no long period of time for human beings in which valences remain oriented exclusively to particular bodily needs. A number of factors contribute to this, of which a most significant one is the process of *cross-conditioning.*[1] This concept identifies the fact that, with continued experience, stimuli are likely to be present along with a variety of inner tensions and the satisfaction thereof; thus they lose their restricted significance as signs for the gratification of a specific need, and become instead signals of a general sort of "good of the organism." Nothing mystical is implied here. We simply mean that a stimulus which has become associated with the gratification of hunger, thirst, sensory comfort, and escape from pain is perceived as *generally desirable,* not merely as a means to relieving a specific tension.

[1] Holt (1931), Chap. XX.

The above formula relates particularly to the attachment of positive valence to certain objects which are ubiquitous in the child's early environment. The sight of the mother, for example, and the sound of her voice will acquire a multitude of cross-conditionings of a positive character. When this generalizing process has become firmly established, the presence of the mother will be in itself satisfying and will not depend upon any inner tension. We consider this interpretation to be far more realistic than the Freudian view of innate sensitivity to adults as need-satisfying agencies.

Social Pressures and Valence.—The parents or parent substitutes who take care of the child will tend to acquire generalized positive valences. They will then be in a position to establish other positive trends through the techniques of command, imitation, suggestion, and identification. Direct reward and punishment are also employed by the adult to build up these valences.

When the child obeys commands or suggestions from adults, or when he identifies with the adults and imitates them, he usually achieves various goals. His reward may be in the form of candy, cuddling, praise, or escape from discomfort; in any form, it tends to endow with positive valence the perception to which he responded. This perception may be (*cf.* Chaps. V to VII) an object, an idea, a word, an act of another person, or a self-initiated action. Thus social expectancy can become a strong motivating condition.

Even with adults the intangible social pressures are not too far removed from concrete reward and punishment. The man who conforms to accepted standards in business will be promoted and raised in salary and prestige; in politics he will be elected to office, with tangible gratifications resulting; he will have friends and be sexually acceptable to females. The man who violates social standards and conventions will be fired, rejected by the voters, ostracized by his associates, and jilted by his sweetheart. If he goes to extremes, he may even be jailed or executed. Cross-conditioning thus operates to offer a variety of rewards and to threaten a multitude of punishments, as incentives to social conformity.

The Function of Expectancy.—Valence is in itself a form of anticipation or expectancy. It is, moreover, particularly adapted to function in relationship to expectancies of different sorts. If a person anticipates hunger, the memory of past discomfort and the expectation of future gratification may cause food objects to have positive valence even in the absence of a physiological need for food. The expectation of social reward or punishment can set up various tensions. The processes of memory, imagery, planning, and imagination may present rewards and punish-

ments along with the thought of particular objects or actions. While these processes stand at a lesser level of reality than that of perception, they can nevertheless strengthen positive and negative valences very substantially.

The expectancy function is especially important in connection with such problems as long-range purposes, ambitions, and ideals. A boy may be enthusiastic over a plan to become a physician; in his mind this state is pictured as associated with rewards of economic security, prestige, and altruism. The taking of a college course and similar intermediate steps will then acquire positive valence, because they are perceived as necessary steps to the major goal. Without this ability to picture to oneself future conditions and to evaluate the positive and negative aspects that will be encountered, the human personality would lose some of its most complex and socially significant features.

A boy who encounters an excessive number of negative valences in his home life, in school, in economic and authority relationships, may develop a generalized aversion for the social institutions surrounding him. He may then picture to himself a better world, one offering positive gratifications; to replace the frustrations and deprivations that he has met; and this picture may become the guiding pattern for his efforts at social reform.

Trait, Motive, and Frame of Reference

In Chap. VIII there was developed an interpretation of personality traits as organized standards of judgment regarding personal activities. Thus it was suggested that a trait of sociability be considered as an evaluative standard for social situations, so that the person judged, as desirable and to be approached, those occasions which promised personal satisfaction. The sociable individual valued situations involving personal participation; the seclusive person valued situations avoiding such participation. To the extent that such judgments were consistent in a variety of concrete instances, we could characterize the trait as integrated.

It is apparent that we are applying the same interpretation to the problem of motive. Fundamentally, a motive can be conceived as a frame of reference for the judging of the desirability or undesirability of a certain class of situations. Economic motivation functions as the positive evaluation of economic goals and the pathways by which such goals are achieved, and, simultaneously, as the negative evaluation of conflicting goals and pathways leading away from economic success.

A particularly good concept for illustrating this point is the Freudian Super-Ego. The Super-Ego, it will be remembered, is the composite of those parental demands, imperatives, and prohibitions which become in-

trojected and are then imposed by the individual upon himself. The Super-Ego thus has many of the elements of the frame of reference: it is a product of social expectancies; it involves acts of judgment as to the permissible or compulsory quality of specified behavior patterns; it may be thought of as laying out a scale of actions, from the highly approvable to the completely forbidden. Redefinition of the situation (*cf.* rationalization) may enable the individual to by-pass the Super-Ego taboo and carry out the act. This conception of moral and ethical motivation in terms of standards of judgment seems considerably more realistic than the half-mystical and often vague idea of the Freudian Super-Ego.

The chief difference—perhaps, the only significant one—between trait, frame of reference, and motive, as here conceived, is one of emphasis. The *frame-of-reference* concept was originally developed and has been used to refer to a perceptual phenomenon: the process of judging an object, a person, or an idea. *Trait* is generally employed to identify an action pattern, with the reservation previously noted that the inner perceptual-emotional organization may be more significant than the outer form of behavior. *Motive* is now set up as a third category, emphasizing the dynamic aspect or coercive quality of the total process: the felt impulse or need to approach stimuli of positive valence and to avoid those of negative valence. The focus here is on the energy released by this felt pressure, attraction, or repulsion.

Frame of reference is an all-inclusive concept, covering both trait and motive. Many processes of judgment, however, do not fall within either the trait or the motive category. Thus with regard to music, one might have a frame of reference which would pattern his preferences and dislikes in this field, but the reaction might not be sufficiently related to any other judgments to constitute a trait. (If a man had a preference for modern music, modern architecture and art, and revolutionary literature, we should be justified in identifying this integrated tendency as a trait.) Furthermore, some traits do not possess sufficient dynamic quality to justify their inclusion in the category of motives. A person may manifest a trait of cheerfulness, which is a persistent surface feature of his personality; yet this is a product of other factors, not a dynamic need in itself. On the other hand, a trait of passive dependency may be both easily observable and strongly dynamic.

What we must accept as a conclusion of this analysis is the idea that there is no sharp definition by which we can differentiate motives from other manifestations of the human personality. Motivation is a concept developed to classify certain aspects abstracted from observed behavior. But we cannot draw a clear line and say, "These are the human motives:

hunger, sex, social approval, security, and power." We must, on the contrary, say: "Motivation is a quality which inheres in certain human judgments and actions. While we can safely predict, on the basis of common biological and social determinants, that most human beings within a given culture will manifest certain motives, individuals will vary in the intensity of these needs; and specific individuals will also show many motives which are not common to the general population.[2] To know completely the motivation of any personality, we must study that person."

Fallacy of Assuming Common Motives.—The psychology of motivation has been dominated by the assumption that human behavior should be explained in terms of a fairly short list of common impulses. These have variously been called instincts (McDougall), needs (Murray), wishes (Thomas), the libido (Freud) or the will to power (Adler). The most unfortunate aspect of these lists is that the authors seem to treat each motive—inherent or acquired—as if it somehow resembled a separate electrical circuit, from which current could be drawn to dynamize human activities. There are numerous shortcomings in this view, not the least of which is the fact that a given person may vary widely in his manifestations of such motives according to the situation. The communist, for example, does not care for social approval from Wall Street bankers, and if by chance an anti-Semite got a vote of endorsement from a Jewish congregation, he would not be pleased. A professor who desires prestige within his scientific field might not care for public acclaim based on his ability at bodily contortions.

The fact that the assumption of such general "motives" does not really explain behavior may also be emphasized by noting the extent to which other activities may acquire driving force. Motivated behavior is persistent, variable, and characterized by emotional arousal when blocked. These same attributes may be observed in connection with daily habits. Consider the case of the man who fails to receive his afternoon paper on schedule. He repeatedly walks out of the house and looks for it, swears at the carrier boy, calls the neighbors to see whether their paper has come, and perhaps walks several blocks to obtain a copy at last. This can hardly be ascribed either to physiological drives or to the usual social motives, yet it shows all the features of motivated action. One would have to be a foolhardy psychologist indeed to postulate a "newspaper-reading instinct" or an acquired motive for reading newspapers.

More plausible than either alternative would seem to be the hypothesis

[2] *Cf.* the distinction between common and unique traits, Chap VIII.

that *any situation can acquire valence* and that *any activity can develop its corresponding tension.* The valence of a stimulus—its potency in arousing dynamic action—will depend on how it is perceived *in relation to the Self.* Customary stimuli may acquire positive valence because they have been perceived as related to various other positive valences, such as rest after work, food, physical comfort, money, and so on. If, however, a man becomes a fugitive and fears identification, the perception of a familiar stimulus may suddenly acquire a negative, not a positive, valence. Analysis of this phenomenon in terms of simple learning is quite difficult. What stands out is that the individual's frame of reference is different: the object is the same but *its significance for the Self has changed.* A sign of positive gratifications has now become a sign of danger.

Central or Ego Tension.—We have noted in Chap. XIV that Morgan (1943), on purely physiological grounds, believes it proper to assume the existence of some central nervous condition underlying motivated behavior. This central motive state is considered as providing the continuity which is so impressive a feature of motivated behavior.

The existence of this neural basis cannot be demonstrated at present. On the psychological level, however, we can show that the integrated, persistent, continuous quality of motivated behavior is theoretically predictable. We can find the unifying factor in the role of the Self in motivation.

Whenever any state (hunger, threat of pain, fear of humiliation) sets up a tension within the organism, anxiety is aroused. The anxiety is related not only to the specific function involved, but also to the Self. It is not merely that hunger is present; it is that *I* am hungry. Humiliation is unpleasant, but the intensity of motivation arises from the fact that *my ego* is endangered. As Allport (1940) has clarified his position, "Motives may be autonomous in respect to their origin, but never in respect to the ego." The psychological analogue which we propose for Morgan's central motive state, therefore, is *ego tension;* in other words, awareness of a threat to the integrity of the Self. This threat may be biological, as in hunger or pain (remember that the Self is basically a complex of organic sensations); it may be social, or economic, or sexual; in any case, it is not merely a danger, but a danger to the Self.

Equivalent Gratifications.—The conception of a central ego tension as the immediate basis for motivated behavior at levels above the infantile has another value. It helps us to integrate the facts of substitute gratification into motivation theory.

It is a matter of fairly common observation that a person who fails to

achieve one positive valence may be satisfied by another. The child who is denied a trip to the movies may be pacified with an ice-cream cone. A man who is jilted by his sweetheart may apparently attain tension release by writing romantic poetry. Skard (1936) noted that, when his chickens were temporarily deprived of food, the amount of sexual activity showed a significant increase. Maslow (1936) reports similar interchangeability of dominance-driven and sexually driven behavior in primates. It would thus appear that even at the infrahuman level the principle of equivalent gratifications holds good.

It would be impossible to explain these phenomena on the assumption of discrete and independent motives. If the sex urge and the hunger urge were completely distinct, how could tension in one system be relieved by gratification of the other? If security and prestige were entirely independent of each other, how could security compensate for loss of prestige?

The answer appears to be that, both in human beings and in other animals, frustration of any need sets up a central tension. This tension probably takes the form of anxiety. Anxiety forms the basis for restless search behavior. Valences perceived as relating to the original need will have maximum attractive power, but almost any positive valence will serve to lower the anxiety level to some extent. The extent to which this interchanging is satisfactory will depend apparently upon the perception of different goal objects as desirable to the Self. In children, for example, overeating is a fairly common response to various kinds of frustration, including denial of affection [*cf.* Bruch (1941)]. At that age the Self is still closely tied to organic sensations and needs.

Cultural Determination of Motives.—Frames of reference are markedly influenced by the cultural standards imposed upon the developing individual. It will thus strengthen our argument if we can show that motivational pressures are significantly different in differing cultures.

This is easily done. To take a single example, we may mention the comparison of "typical" Orientals and Occidentals with regard to major motivations. Among the Chinese, ancestor worship is a deeply rooted tradition, and the amount of effort and energy devoted to carrying through the socially accepted rituals is often tremendous. A Chinese psychologist might easily misinterpret such a strong and universal impulse as being inherited. The ancestor-worship pattern shows the characteristics of excessive energy, variability, persistence, and emotional reaction to frustration, thus resembling hunger, thirst, and escape from pain. A European psychologist, however, would not be in danger of making this

mistake, because he is aware of the large areas in which such a motive is weak or nonexistent.

The Chinese psychologist, likewise, on observing the Western world, would see no reason for believing that the desire for financial gain was an inherent feature of human nature. His cultural background shows that this common motive of Western man is not determined by inheritance.

The emphasis of this chapter, therefore, falls on two points: (1) that each personality develops its own characteristic motives, based on biological tensions and social pressures; and (2) that the culture within which the individual matures determines the extent to which he will manifest the "common motives" exemplified by the various lists of instincts, wishes, and needs.

To develop this latter point more convincingly, we propose to reexamine certain aspects of Freud's and Adler's theories and to show the extent to which a cultural approach illuminates and simplifies their views.

Sex and Civilization

Turning first to Freud's elaboration of the importance of the sexual impulse in personality, we find ample evidence that this motive is profoundly modified by the social milieu in which the individual develops. The observations of Mead (1935) and other anthropologists indicate, first, that our taboos upon sexual behavior and sexual satisfactions are quite different from those of other groups; and second, that sex, as a form of motivation, varies markedly in intensity from group to group.

The anthropologists do not attempt to explain away the existence of a biological basis for sex behavior. They do, however, emphasize that the sexual phenomena important to Freudian theory stray far from the physiological origins of the sex drive. Their evidence suggests that the strong positive valences attached to sexual goals in certain cultures are functions of other than biological factors.

Sex as a Conditioned Motive.—Freud often writes as if the attachment of the child for his mother were an early manifestation of an innate sexual impulse. The processes of conditioning, however, can easily be invoked to explain this relationship. Kimball Young (1930) offers the following presentation of this view:

"The first object of attachment for the infant is the mother. His reactions to her begin with nursing and with maternal care. . . . The fixation on the mother's breast is one of the first forms of conditioning. The Freudian psychologists have made a good deal of this early habit as the basis of sexual attachment and later sexual activity. There is much clinical evidence to connect the sucking and nursing act with later conditioning toward the sexual organs. Yet, at the beginning,

the fixation appears dependent upon hunger and thirst more than upon sexual demands. Probably the tactile sensations of the lips upon the breast and the sucking response itself are pleasurable, but that they are, for the child, sexual in any narrow sense is doubtful. On the other hand, so far as the mother is concerned, there may be a distinct erotic sensation from nursing the child. This, in turn, may lead the mother to fondle or pet the child while nursing and set up in him secondary reactions to sensitive and erogenous zone stimulations that will later become associated with his sexual activities."[3]

The psychologists who adhere to one form or another of the position here stated by Young feel that Freud was not justified in his assumption that adult sexuality is in any real sense latent in the child, and that the infantile reactions which Freud correctly described may more properly be explained on this simpler basis. Young's point becomes even more emphatic when we consider the number of cases in which the child's attachment is to the nurse (or any adult who is a source of positive gratifications), rather than to the mother.

Suppression and Motivation.—Even if there is a biological need present, the extent to which it becomes a major feature of personality will depend upon the extent to which the culture singles it out for special attention, *e.g.*, by suppression. We may, as an illustration, consider the oxygen drive. This is a powerful drive when interfered with, but there are no social restrictions upon its satisfaction, and consequently we find no socially significant behavior resulting from it. But if someone devised a scheme by which oxygen could be made private property and sold at a profit, it would become an object of crime; and if to indulge in oxygen publicly were considered shameful, we should undoubtedly have some peculiarities of personality focused around the oxygen-seeking motive. The importance of a given need in personality development is rather definitely related to the cultural taboos and standards for the satisfaction of this impulse.

Mead (1928) has graphically depicted the difference in sex taboos and the cultural focus on sex for various primitive cultures. She finds substantial evidence that the amount of personality deviation which seems attributable to sex, and in general the intensity of sexual motivation, is much less where the culture is relatively indifferent to sex. Thus in Samoa, where sexual indulgence by adolescents was taken for granted and only married couples were expected to observe taboos on infidelity, she found no exaggerated interest in sex and little evidence of perversions, neuroses, or insanity which could be traced to sexual motivation. This was quite

[3] From Young (1930), p. 239. By permission of F. S. Crofts & Co., publishers.

in contrast to other cultures that she had studied. This conclusion appears to be generally confirmed by other anthropologists working with a variety of primitive societies.

The imposition of cultural standards upon particular needs inevitably focuses the child's attention upon these tensions and their corresponding valences. When a child, in the course of his random exploration of his body, discovers that touching his sexual organs is pleasing, there is no necessary implication of greater importance than his discovery that candy is pleasant to taste. If adults find him engaged in sexual play, however, he will be scolded and punished—with more than the usual fervor. Such treatment serves to underscore the importance of this particular activity.

As Lewin's students have shown, the interruption of any activity does not end the tension underlying that activity. Unless a suitable substitute is provided, the child will resume the forbidden action as soon as opportunity allows. Thus the attempt to impose cultural taboos is likely to serve only to emphasize sex as an important phase of life.

Inhibition and Enhancement.—Punishment not only underscores the importance of sex, but it may make sexual gratifications seem more pleasant than would otherwise be the case. Wright, we noted, discovered that the interposition of a barrier caused a valence to function more powerfully. Taboos against sexual indulgence serve to make such gratifications more attractive.

In the course of his training for life in our culture, the child is regularly denied certain pleasures until he has performed certain set tasks. He may not have his dessert until he has eaten his spinach. He may not go to the movie until he has swept the cellar. He may have some candy if he wipes the dishes.

Upon encountering the sex taboo, however, he finds a pleasure which cannot be earned by any extra effort. It is not surprising that he treats this as a challenge, a situation calling for unusual exertion to achieve an extraordinarily attractive goal.

Introjection, Suggestion, and Motive.—The potency of positive sexual valences is constantly being enhanced through movies, magazines, newspapers, advertising, and radio. America worships the cult of the young female figure. Girls identify themselves with movie stars and seek to be sexually alluring by every device known to modern advertising. Men are stimulated to desire and pursue these young women. Social evaluations of success and failure are closely linked with sex. The man who uses the right soap, hair tonic, or shaving lotion will win a beautiful bride and get a job in her father's firm. Girls saturate themselves in pulp magazines idealizing a kind of sybaritic prostitution sanctified by a

marriage ceremony. While the physical aspects of sex are intriguingly censored in most romances, advertising has apparently dropped about six of the traditional seven veils already.

The child identifies himself with an adult, either in reality or in fiction. When it is suggested to him by this adult or by some spokesman (*e.g.*, the advertising man) that sexual pleasures are more intense than any others, he is likely to accept this suggestion. As he introjects movies and fictional situations, the positive valence of sex is magnified more and more.

Social Premium upon Sexual Sophistication.—As we come to consider the sexual impulses of older individuals, we find other social factors cooperating with those which we have already enumerated. There is considerable social pressure, particularly upon the adolescent, to become sexually sophisticated, *i.e.*, to have (and be able to talk about) sexual experiences. This is a general phenomenon, but is particularly true in situations where a large number of unmarried young people are gathered together, as in an army barracks or a college dormitory, and other comparable conditions. One of the main amusements of such groups consists of sitting in smoke-filled rooms telling stories of sexual conquest. But the unfortunate youth who cannot tell such stories or does not even know the vocabulary involved is subject to an extraordinary amount of ridicule and teasing. Under these circumstances, his early moral training, fears, etc., may break down and he will seek such experiences in order to avoid criticism. The conflict between the fear of transgressing the codes of moral behavior implanted in childhood and the positive valence of social conformity precipitates many personality disorders. Corson (1927) writes of the sexual factors in a group of psychotic cases among college men as follows:

"Most of the group had reached an age where success, or the lack of it, with girls, was important to the patient in securing the esteem of his associates. . . . M. I. C. found his 'iron will' of no avail when it came to sharing a sleeping bag with a French widow. Keen was his disillusionment when he discovered the existence not only of a husband, but of other lovers as well. This experience followed closely the shattering of a romance by his mother, and constituted an added mental burden from which he has not completely recovered, although he has once more assumed a place in society. P. E. R. in his manic periods did what he considered 'the manly thing' although at other times he shrank from association with women. . . . A. N. D. had continued to be 'mother's pure pearl' but at a tremendous price. . . . C. O. U. was never able to raise his affections above the prostitute class. M. A. C. found that a wife added much to his load, and a return to his home shortly after marriage occurred early in the mental breakdown. . . . R. U. S. talked much of 'women' and had many friendships with girls, overempha-

sizing the sexual distress that he caused in them, but never reaching the point of actual relations.

"All of these boys wanted to do 'the accepted thing.' All had difficulty because sex was presented to them in a biased, unintelligent fashion. Neither did they find any aid in the old Puritanical standards with lurid ideas about masturbation and strict continence, nor a better solution in the opposite point of view. . . ." [4]

The whole social situation is so arranged as to keep sex constantly in the foreground of the adolescent's attention, and to place premiums of various kinds upon sexual sophistication as well as penalties upon ignorance.

Other Aspects of Freudian Theory.—We have been concerned chiefly to establish the generalization that the Freudian emphasis upon sexual motivation as the prime mover in personality development is compatible with a culturally oriented viewpoint. Space does not permit a detailed analysis of other phases of Freudian theory, such as the development of psychosexuality. It would appear, however, that a straightforward treatment of parent-child relationships in terms of learning theory would provide an account which would explain about as much as the Freudians do of these stages.

The only one of the various phenomena emphasized by Freud which does not readily lend itself to the cultural approach is the Oedipus complex. The universality of the complex is rejected, however, by various anthropologists, who find it missing in cultures where the father-mother-child triangle is recognizably different from that of Western civilization.

The basic correctness of the Oedipus complex as a psychological feature of our own culture seems firmly established. Not only are clinicians almost unanimous in reporting such phenomena (not necessarily in Freudian language), but various statistical studies [*cf.* Stagner and Krout (1940) and Meltzer (1941a)] confirm the idea in general. There are fragments of evidence which suggest that the occurrence of the Oedipus reaction is determined by the behavior of the parents, not of the child. Fathers seem to be by custom more severe with their sons, more indulgent with their daughters Mothers often reverse this relationship. Thus the sex differential, which is the cornerstone of the Oedipus complex, may be a function of the behavior of the adults, which in turn is conditioned by cultural expectations. The rivalry and hostility associated with the Oedipus reaction would follow quite naturally, in any event.

[4] From Corson (1927). Reprinted by permission of National Committee on Mental Hygiene, publishers.

Culture and the Will to Power

If we turn from Freud to Adler, we find it even easier to formulate a cultural interpretation of the observed facts of motivation. The power drive, or the struggle against inferiority, as Adler presented it, is found to be a markedly different phenomenon in societies of different socioeconomic structure. Charles Darwin, who wrote down many things which had nothing to do with the theory of evolution, records the following interesting comparison of nineteenth-century inhabitants of Argentina and Chile:

"The Guasos of Chile, who correspond to the Guachos of the Pampas, are, however, a very different set of beings. Chile is the more civilized of the two countries, and the inhabitants, in consequence, have lost much individual character. Gradations in rank are much more strongly marked; the Guaso does not by any means consider every man his equal; and I was quite surprised to find that my companions did not like to eat at the same time with myself. This feeling of inequality is a necessary consequence of the existence of an aristocracy of wealth." [5]

Numerous other observers have commented on the fact that the introduction of capitalist economy, with its sharp inequalities of financial and social standing, changes the "collective personality," *i.e.*, the average personality, of the group members. An illustration similar to that cited by Darwin is the case of some American Indians before and after being "civilized." Other authors have given us descriptions of the South Sea Polynesians and other groups who have come under the sway of Western civilization.

In all these cases it is rather clearly indicated that, while distinctions of rank were present, they were neither as clear cut nor as bitterly insisted upon before the introduction of the new social order. There seems to be a new attitude of arrogance on the part of those in the superior position (usually the white man on his mission of "civilizing" the barbarian, as in the case of the English in India) and new attitudes of envy, hate, and distrust in the suppressed group. Many of the more intelligent members of the Negro race show personality disturbances as a result of the inferior socioeconomic position they have been forced to take in America, and the traditional persecution of the Jews has left its mark in the traditions of this religious group, as well as upon the personalities of many of the current generation. Thus, while dominance (in the positive sense, as described by Maslow) probably exists in all human societies, *the sense of inferiority, and the will to power, develop out of a particular kind of social structure.*

[5] Darwin (1931).

Training for Inferiority.—The fact that a child is small, weak, and intellectually handicapped as compared with his adult surroundings is inevitable. The fact that he is taught to bow down before the authority and omnipotence of adults is not. While some progress has been made, it is still true that the dictatorial authority of the Roman paterfamilias is the basis of most family organization. The child is denied freedom of opinion or action. His hours are ordered and his very thoughts censored by adults. Under these circumstances, Adler's observation that the child suffers from feelings of inadequacy is the reverse of surprising.

The child's attention is focused on competition and on getting ahead of others. His mother, who wants him to grow bigger and learn faster than neighboring children, puts pressure on him to eat his spinach, to outdo his friends at games, and to excel at school. Social differentiations are indoctrinated by subtle, often unconscious, devices (*cf.* Horowitz on attitudes toward the Negro, page 219). If the family is economically handicapped, aspirations are likely to be painfully in the foreground; and more fortunate children are likely to make the poorer boy keenly conscious of his inferiority.

Adults are under constant pressure to achieve, to raise their status. In a factory community a foreman is a person of great prestige; to quote one small boy, "Muggsy thinks he's a big shot because his uncle used to be a foreman." Job hierarchies make for subtle social distinctions; in a railroad town, the husband's job determines the social circle in which the wife moves. Status pressure is not limited to Army and Navy posts.

A Pattern of Inequality.—As Charles Darwin noted, the existence of extreme variations in wealth induces awareness of social gradations, with concomitant concern for superiority and inferiority. American culture exalts power as a positive goal, second only to sex. Money is in many cases only a means to power and status. The successful executive who gives up a six-figure income to become an ambassador at a financial loss is showing the significance of status as a positive valence. The rapid expansion of unions in the decade after 1933 was in part a revolt of factory workers against a regime in which they had no status. The union tended to equalize the power of worker and executive.

As was noted in describing Adler's views, his treatment of women's inferiority complexes in terms of "masculine protest" could more satisfactorily be represented in terms of the cultural advantages attached to being a male. The foregoing analysis seems to indicate that all of Adler's theory revolves around culturally determined valences, that in a different culture the personality phenomena he has emphasized would disappear.

A Cultural Theory of Dynamics

These analyses of sex and the will to power lead to the conclusion that personality dynamics is largely culturally determined. The goals toward which we shall strive and the pathways we shall perceive as suitable for attaining these goals are laid down by society. It is not necessary to assume a particular organ system as a basis, or even a hereditary impulse. To a very large extent, the motives characteristic of personality can be considered to be *patterned by the social system in which the developing individual is placed.* In a different society the same physiological organism would acquire a different set of tensions and valences.

This view of dynamics is essentially particularistic in nature. By particularistic we mean that motivation is a matter of tensions related to particular activities, habits, or ambitions of the individual, not dependent upon some "stream of energy" which can be turned on or off through a spigot. The student may find it illuminating to think of a habit, such as smoking. Although it is obvious that there is no innate craving to smoke (and probably no physiological basis for the habit after it is established), smoking acquires its own tension as an organized system, and interference with the activity will demonstrate the strength of the motivation. Nothing is gained by relating it to any hypothetical instinct or to some common motive, such as the desire for security or recognition. The only extent to which these particularized motives have general significance is in their relationship to the Self-image. Substantial energies can be released by any situation which is perceived as a fundamental danger to the Self. The perception of such situations, again, is culturally molded. Even the "instinct of self-preservation" is nullified by cultural patterning.

Some Social Implications of This View.—We shall consider the problems of the individual personality in its environment in a later section. At the moment it seems worth while to point out a few implications of the proposed interpretation of motivation. If we find, for example, that our sexual morality is only one of many which have been extant among civilized societies and that it has, indeed, changed considerably during the history of western Europe; and if we find, further, that this system of morality is directly involved in the establishment of a motive (or group of motives) which is a causative factor in 50 to 100 per cent of neuroses, according to qualified observers; if we find these conditions, we begin to wonder if something may not be wrong with such a system of morality, and whether it might not be better social policy to revise it, than to try to preserve it intact.

Likewise if we find that our social and economic system, based on inequality of opportunity and reward, is neither universal in occurrence nor wholesome in its effects on new groups "civilized" by it; and if we find that this inequality tends to establish a motive which leads to misbehavior, delinquency, crime, and personality breakdowns; then we may be pardoned for suspecting that a different socioeconomic system, in which equality of opportunity was characteristic, might be a very considerable improvement, from the point of view of the psychologist.

There is little point in recommending changes in the way of treating children in home and school if the large structure of society, the economic world, and the world of social relationships among adults continues as before. Training children for democracy would not fit them for an autocratic economic system. Training them for a sane sexual morality would be of little or no value if they were forced to continue to observe our present conventionality, customs, and laws, although of course some improvements would be possible.

Summary

The purpose of this chapter has been to present the argument that motivation, like the observable aspects of personality, is primarily determined by environmental influences. Because of the great significance of the sex drive in personality problems, special attention was paid to the demonstration that the conditions of child development foster a sensitive attitude toward sexual stimuli, and an overvaluation of sexual pleasures. Other motives may also be analyzed in this way. This theory puts motivation in terms of particular values, each value having its own characteristic tension. A motivated activity is one which has a determining tension unique to it, although a previously established tension may be employed to establish the new activity. This theory has important social implications, because it contradicts the common view that our social system is based upon innate qualities of human nature.

Suggestions for Reading

A similar view of motivation, in very brief compass, is presented by LaPiere and Farnsworth in Chap. XI of their *Social Psychology*. Margaret Mead's *Sex and Temperament* is perhaps the most convincing work on the relativity of drives to particular social systems. Chapter II of Cantril's *Psychology of Social Movements* gives a good treatment of the role of the Self in motivation. Freeman's *Social Psychology* is entirely constructed around a view of motivation as value, such as we have given. His work is intensely stimulating and valuable. *Cooperation and Competition among Primitive Peoples,* edited by Margaret Mead, gives in the Introduction some further aspects of this approach. Plant's *Personality and the Cultural Pattern,* Chaps. V and VI, is also relevant.

SECTION IV
DETERMINANTS OF PERSONALITY

CHAPTER XVII
BIOLOGICAL FACTORS

Much of our discussion, so far, has implicitly assumed the existence of biological and social factors making for *differences* in personality, as well as those common to all personalities. In these concluding chapters, we shall bring together the major facts regarding the specific biological and social factors which determine a particular kind of personality.

Before entering upon a consideration of the available data on biological characteristics related to differences in personality traits, we should emphasize one note of caution. This is that every personality is a product of many interacting factors. The desire to find large and significant correlations between specific biological measurements and specific psychological characteristics is understandable. A realistic approach, however, suggests that personality is shaped by a great many small influences, not by a few very potent factors. If the student keeps this point in mind, he will realize that, while the relationships between biology and personality are small, they are none the less significant.

"Human Nature" Begins with Biology.—Some psychologists like to stress the fact that human nature is essentially social—that the biological basis for action is ours commonly with the infrahuman animals. It is only proper to recognize, however, that social influences can operate only upon a biological organism. Differences in the quality of this physical structure will make for differences in the reaction to social conditions. Thus even the social psychologist cannot ignore biological mechanisms.

There are a number of different approaches which reveal the significance of biological factors. First, there is the investigation of heredity. Individuals differ as a result of innate conditions, irrespective of environmental influences. While the technical problem of demonstrating that a

given variation is hereditary and not acquired offers numerous difficulties, it is worth some attention.

Second, we may study different organ systems and correlate variations in their functioning with personality patterns. Such internal differences may be determined by heredity or by earlier environment. In a few cases, we can relate the data on personality to specific variations in the organism, such as size and weight of endocrine glands.

Third, we may study the conditions of the body fluids, the biochemistry and hormonal constitution of the individual. Such functional differences may prove more enlightening than studies of glandular structure and size.

Heredity

Heredity is a common scapegoat, and persons who wish to avoid a sense of guilt over their sins of omission and commission in child rearing are prone to blame the youngster's incorrigible disposition upon his ancestors. As the ancestors are generally in no position to protest, the procedure seems safe, if not particularly helpful.

The evidence as regards the true importance of heredity does not render much support to this type of rationalization. While most psychologists are convinced that heredity is a major determinant of intelligence (the common estimate being that heredity is about four times as important as environment in that area), they are by no means satisfied that personality is so rigidly limited by hereditary possibilities.

To some extent, one's evaluation of the nature-nurture ratio in personality will depend upon the definition of personality chosen. We have espoused the view that personality is basically an inner pattern of beliefs and expectancies about the Self in relation to its environment. Such a definition stacks the cards in favor of an environmental emphasis. An approach which stressed temperament—breadth and intensity of emotional reactions, for example—would probably favor the inheritance hypothesis, although even here the evidence is somewhat ambiguous.

Technical Problems.—The collection of satisfactory evidence on human heredity is intrinsically difficult. Geneticists find that the only decisive proof of the inheritance of a specific factor and its Mendelian ratio rests upon selective crossbreeding. Human beings are likely to object strenuously to proposals that biologists or psychologists select their mates and determine how many offspring they shall have.

Family biographies are notoriously unreliable as evidence of the inheritance of desirable or undesirable traits. The data are highly subjective in most cases. The extent to which family "pull" helped some members attain success is unknown, and the existence of favorable or unfavor-

able environments paralleling the presumptive hereditary strains is only too clear.

The best sources of evidence at present come from two types of studies: comparisons of identical and fraternal twins, and of identical twins separated in early life; and animal investigations. In the former group we can make comparisons with heredity controlled and environment the sole variable. In the latter type of research we can actually make crucial experiments on inbreeding and crossbreeding. While the interpretation of animal data has in the past been dubious, recent work has advanced technically to the point that scarcely any debate can arise.

Identical versus Fraternal Twins.—Identical (monozygotic) twins represent the sole instance in human biology of two individuals having exactly the same hereditary constitution. Fraternal (dizygotic) twins develop from separate fertilized egg cells, whereas identicals result from the accidental splitting of a single fertilized ovum. Thus the gene pattern is exactly alike in identical twins, whereas it may differ markedly in fraternals.

One of the earliest studies of twin differences is that of Holzinger (1929). This investigator compared 50 pairs of identical with 52 pairs of fraternal twins. The measure adopted to show similarity was the amount of intrapair difference in various measures. As is shown in Table 12, identical

TABLE 12.—MEAN DIFFERENCES BETWEEN TWIN PAIR MEASURES

Points tested	Identical twins	Fraternal twins
Finger ridges	3.4	22.4
Height	1.7	4.4
Mental age	8.4	15.9
Educational age	6.5	11.6
Woodworth-Mathews emotionality	5.6	6.8

twins consistently differ less than fraternals. An examination of the different measures employed, however, is revealing. On finger ridges the fraternals differ seven times as much as identicals; on mental age, not quite twice as much; whereas on a questionnaire test of emotional stability, their variability is only about 1.2 times as great. This suggests that personality is relatively more influenced by environmental variations than the other characteristics listed.

Kerr (1936) compared identical and fraternal twins on the Rorschach test. While she found that identicals were more alike than like-sex fraternals on all comparisons, the differences were extremely small and apparently not statistically significant. Carter (1935) obtained more significant differences. Using the Bernreuter questionnaire test, he found intrapair correlations as follows:

Identical twins	.51
Like-sex fraternals	.37
Unlike-sex fraternals	.26

Considering the verbal nature of the Bernreuter and the nonverbal Rorschach, we should have predicted that environment would have influenced Bernreuter responses more heavily. In these data, however, the conclusion must be the opposite.

Identical Twins Reared Apart.—A special case, of particular interest to psychologists, is that in which identical twins are separated early in life and subjected to decidedly different environments. Unfortunately, not enough such pairs have been investigated to lead to satisfactory conclusions. Schwesinger (1933) reports only 10 pairs studied in detail. While her summary does not give data on personality, a survey of the original papers indicates that in some cases the personality deviations were judged to be less than variations in intelligence, but in others they were considered greater.[1] The tendency seemed to be to consider environment more influential as regards personality than as regards intelligence.

Social Characteristics of Twins.—Wilson (1941) studied the social competence of twins—ability to care for themselves, to carry on normal social relationships, and so on. His data show the trend which might be expected, *i.e.*, monozygotic twins were most alike, dizygotic next, siblings of the same sex least similar. He does not attempt to compute an index of nature-nurture potency.

The occurrence of criminal behavior in identical and fraternal twins has been studied by Lange (1930). Under the romantic title of *Crime and Destiny* he has summarized the case histories of 13 pairs of identical and 17 pairs of fraternal twins, at least one of each pair having been convicted of some crime. Following up the brothers of these 30 convicts, he found that 10 of the 13 identicals committed similar crimes, whereas only 2 of the 17 fraternals committed offenses of like character. (By a "similar" crime, Lange means that if one committed forgery, the other

[1] For a detailed presentation of a case in which the twins were followed up over a period of several years, see Burks (1942).

had committed a crime involving ingenuity rather than violence; he is looking for psychological resemblances, not legal identity.)

While crime is clearly related to our social framework and can in no sense be considered hereditary, there is no reason to reject the hypothesis that similar constitutions will tend toward similar violations. Lange's study appears to prove that, when subjected to strain, persons of similar heredity will have about the same breaking point and will manifest the same kind of deviant behavior.

Studies of Temperament in Rats.—Ever since man began selectively breeding dogs and other domestic animals, it has been known that certain kinds of emotional (temperamental) traits could be determined by heredity. Not much was done, however, about defining operationally the precise characteristics involved, and only with the monumental work of Stockard (1941) were essential data on endocrine glands and other internal structures accumulated for selectively bred animals. Unfortunately, Stockard died before the behavioral data on his dogs were adequately integrated with the autopsy material, and so an essential part of his work is unavailable, if not completely lost.

Because of their size and rapidity of multiplication, rats and mice have proved more popular in laboratory studies of temperament. Hall (1941) summarizes 58 research reports on these animals, and a number of others have appeared since that date. While there are differences as to details, Hall finds substantial and convincing evidence of the importance of heredity in the determination of temperamental differences in these animals.

Data on Selective Breeding.—A sufficient number of different laboratories have now bred rats or mice selectively for some temperamental characteristic with complete success, that we can unhesitatingly accept the conclusion that some genetic factor is operating. The results of Hall, on timidity, shown in Table 13 are typical. The parent generation was tested in the open-field situation. Rats displaying no emotional excretion were mated; and those excreting on 10 or more trials (out of 12) were interbred. These two lines were kept separate, and only those animals conforming to the stated criteria were mated in successive generations. As Table 13 shows, this has resulted in a successively wider separation of the two strains, although most of the change has been in the exaggerated timidity of the emotional strain. All the differences for the F_3 and following generations are highly significant statistically.

Hall and Klein (1942) have tested these fearful and nonfearful rats for aggressiveness, and find that there is a marked negative correlation between fearfulness and aggressiveness. Yeakel and Rhoades (1941), study-

TABLE 13.—RESULTS OF SELECTIVE BREEDING FOR EMOTIONALITY IN RATS [1]

Generation	Number of animals [2]	Emotional strain [3]	Nonemotional strain
Parent.....	145	3.86	
F_1.....	75	3.07	.46
F_2.....	36	4.72	1.94
F_3.....	109	3.92	1.02
F_4.....	136	4.69	1.40
F_5.....	134	4.96	.41
F_6.....	99	6.87	.51
F_7.....	125	7.82	.17
F_8.....	117	8.37	1.07
F_9.....	117	10.31	1.68
F_{10}.....	88	10.41	1.45
F_{11}.....	99	10.11	1.05
F_{12}.....	78	10.40	1.65

[1] Part of this table is from Hall (1941), the remainder from a personal communication from Dr. Hall.

[2] These animals were fairly evenly divided between the two strains and, as to sex ratio, within each strain.

[3] The criterion of emotionality is the occurrence of emotional defecation or urination when placed in an open space, circular, 7 feet in diameter. Each rat is placed in the field once a day for 12 days. The mean score is computed from the number of days on which emotional excretion occurred.

ing Hall's animals, found that the timid strain possesses larger endocrines —adrenals, pituitaries, and thyroids. Martin and Hall (1941) discovered that timid rats are less likely to have convulsive seizures when stimulated by an air blast than are the fearless animals.[2] Thus we have a consistent and convincing set of data to show that temperamental characteristics of a very important kind can be varied by selective breeding; and further, that selection based on a single temperamental factor (timidity) affects markedly the distribution of other temperamental characteristics.

Genetic Constitution.—Hall has not published any hybridizing experiments with his timid and fearless strains. We thus have no information as to whether this behaves like a unitary Mendelian trait or whether a number of genes must be assumed to be involved.[3] Maier and Glaser

[2] At first glance this looks very confusing. Hall offers the explanation that the unemotional strain has an underactive autonomic nervous system, that the air blast builds up tension which finally explodes in the convulsive seizure. The timid strain releases tension in other ways and never builds up to the convulsive stage.

[3] In a personal communication, Dr. Hall reports that he has begun hybridizing experiments. The results confirm the importance of genetic determination, but give little hint as to the number of genes involved.

(1940) believe that the tendency to convulsion in rats when keys are jingled near their ears is inherited as a unitary genetic characteristic, but the data are scanty. Dice (1935) reports that a similar response in mice appears to be a unitary recessive trait. Stone (1932) studied wild-savage behavior in rats and found rather convincing evidence of multiple genetic determination. This does not necessarily contradict the work of Maier and Glaser or of Dice, as Stone was working with a more complex characteristic.

The most we can conclude from these studies of crossbreeding is that the importance of heredity is confirmed. Certainly there is no indication that temperament is going to be tied down as a unitary Mendelian characteristic; it is much more likely to be found to have a complex genetic constitution, with various genes supplementary or antagonistic to one another. Nevertheless, even in the absence of studies on other animals, we should feel impelled to make the analogy to human personality and conclude that basic emotional responsiveness is probably determined to a considerable extent by inherited factors.

Studies on Dogs.—Pavlov (1927) noted that among his laboratory dogs—mostly mongrels—it was possible to distinguish those who seemed inherently excitable and those who were relatively lethargic. Dog breeders had long since recognized these differences and shown that they were heritable. Systematic work in the field, curiously enough, has been rare. Anderson (1941) contrasted particularly the German shepherd and the basset hound, although it appears that he worked to some extent with other breeds. He finds that the excitable, alert, easily conditioned dogs are mostly tall, thin, and narrow-chested, *e.g.*, the shepherd; the calm, phlegmatic animals who condition slowly and lose their conditioned responses rapidly are likely to be stocky, short-legged, and wide-chested, *e.g.*, the basset hound. The analogy with Kretschmer's pyknic-leptosome and Sheldon's endomorphic-ectomorphic classifications is entertaining, but studies of a greater variety of breeds should be made before it is accepted.

Stockard (1941) has confirmed the general observation that temperamental differences in dogs are inherited and has also shown that these differences are correlated with differences in the endocrine glands similar to those found in Hall's timid and fearless rats. He has gone even further in segregating genetic and endocrine factors and proving that they can operate independently. While a tendency to oversize or undersize endocrines is determined by heredity, the functioning of the glands is influenced by postnatal environment. Stockard showed that, despite these environmental variations in glandular secretion, certain genetic processes in

his contrasted strains continued uninfluenced. Thus the finding of an endocrine differential may not be the whole story on temperamental differences.

Applications to Human Temperament.—Unless we are to adopt a hopelessly arbitrary point of view, it would seem that the studies of animal heredity compel adoption of the conclusion that human temperament is at least partially determined by heredity. Such basic factors as ease of arousal of fear, aggression, and other emotions are probably inherent. We may qualify this by suggesting that the environment may exaggerate or restrict such variations.

On the other hand, it is worth while to point out that human heredity is extremely complex, and that pure strains comparable to those developed by Hall in rats simply are not found in human genetics. In mixed strains the effect of various genes may cancel each other, or the laws of probability in the fertilization of ova may produce combinations totally unpredictable from a study of the known ancestors. Thus we cannot make any practical application of these data at the present time. They do, however, confirm the studies of twins and other data in indicating that the ultimate foundation of personality differences is hereditary.

The Autonomic Nervous System

As we have noted in Chap. XIV, speculation on the role of the autonomic nervous system in personality goes back a considerable distance, the monograph of Kempf (1919) being a particularly good example. Kempf and most of the others concerned with the problem at that time, however, were thinking in terms of *universals—i.e.*, they were thinking of the autonomic as a basis for personality in general, but apparently did not take the further step to a consideration of individual differences in autonomic functioning as sources of differences in individual personalities.

The functions of the autonomic system in relation to emotions also became an object of study, in connection with Jung's free-association test. Jung diagnosed the presence of emotional complexes chiefly by slow reaction time, stammering, peculiar responses, and other overtly observable behavior. Smith (1922) and others extended this finding by showing that many, if not all, individuals reacted to complex indicators by a change in the electrical conductivity of the skin, the so-called "psychogalvanic" reflex. This coincided with the observation that emotions often involve flushing, pallor, and changes in pulse rate. Like the galvanic reflex, these are controlled by the autonomic nervous system.

Although earlier studies have been reported, the first large-scale attempt to show that individual differences in inner personality were related to

variations in autonomic function seems to have been that of Darrow (1932). While the investigator considered his results disappointing, he obtained a number of significant correlations between specific autonomic measures and specific patterns of answers to a questionnaire test of personality. In particular, a number of his figures indicate that emotionally unstable personalities show wide fluctuation of autonomic functions—by implication, instability of the physiological bases of emotion. Such a finding is entirely plausible and rather important.

Experimental Frustration.—Freeman (1939) became interested in the hypothesis that autonomic functions might be related particularly to the individual's ability to "take" frustration and to his rate of recovery. Experimental frustration was accomplished by inducing the subjects (college men) to drink large quantities of water and requiring them to retain the liquid until the bladder pressure became acutely uncomfortable. The students showed fairly consistent differences in ability to carry this "load," as measured by blood-pressure change, galvanic-reaction, and muscle-action potentials. There were some indications that those men poorest on emotional control made the least satisfactory records (extreme reaction, slow recovery) on the autonomic measures.

This tentative conclusion is partially verified by Jost (1941). He tested 18 unstable and 20 stable children under various conditions of rest, attention, and frustration. His data show a number of significant differences between the two groups, again conforming to the expected trend for emotionally unstable personalities to have exaggerated autonomic reactivity.

The Autonomogram.—The difficulty with a great many of these studies would seem to be that they expected rather large, total-personality estimates to check with highly specific indexes of autonomic function. An improvement in technique is suggested by Darrow's (1932) finding that his correlations were raised when he pooled several physiological measures into a single index. At present, it looks as if the needed composite were a more complex kind of relationship between two independent autonomic dimensions.

The autonomic nervous system, of course, has two parts: the sympathetic and the parasympathetic. The sympathetic is the so-called "emergency" system, and its effects are closely similar to those of adrenalin—heightened blood pressure and pulse rate, inhibition of digestion, dilation of pupil of eye, and so on. The parasympathetic lowers blood pressure, slows the heart, improves digestion. As his device for setting up an index of combined autonomic activity, Darling (1940) employed a graph (the autonomogram) showing the relative balance of sympathetic and parasympathetic functions. On this basis he was able to show some fairly

significant relationships between autonomic balance and rated personality traits. For example, children with relatively high blood pressure and low galvanic reflexes were judged to be distractible, somnolent, uncooperative, and inhibited; whereas those with high reactivity on the galvanic reflex, but relatively low blood pressure, were rated alert, attentive, cooperative, and excitable.

Autonomic Efficiency.—Most interesting, because of the complex questions it raises, is a study by Abel (1938). Interested in the Zeigarnik experiment on the recall of interrupted tasks as opposed to memory for completed tasks, she ran this experiment on a group of adolescents for whom a measure of autonomic efficiency, the Schneider Index,[4] was available. Her surprising findings are summarized in Table 14.

TABLE 14.—AUTONOMIC FUNCTION AND RECALL OF INTERRUPTED TASKS

(Abel, 1938)

Schneider Index	Recall of interrupted and completed tasks, per cent of cases recalling		
	More I	Equal	More C
High (11-14).....	67	4	29
Medium (7-10).....	31	23	46
Low (0-6).....	12	4	84

We have already suggested (Chap. IX) that the significance of such experiments as this one on memory will vary according to the ego involvement of the remembered material, in other words, its significance for the self-esteem of the subject. Various investigators have shown that persons who feel the experiment as a challenge will recall more interrupted tasks, while those who feel it as a threat to the Self will repress the interrupted assignments. Now we are interested to see that persons with efficient autonomic functioning recall more of the interrupted tasks, while those with relatively inefficient inner controls recall the completed tasks more succeessfully. This raises the intriguing question of the relationship between visceral conditions and such complex variables as pride and ambition. Even without assuming any direct correspondence, it is not

[4] The Schneider Index combines pulse and blood-pressure measures after rest and exercise, to give an index of the efficiency with which the neurocirculatory control is functioning.

difficult to hypothesize a state of quick, efficient visceral functioning which is at least one element in achieving personal success and in the developing Ego. Unfortunately, none of the other studies cited bear directly on this hypothesis; it is possible to assert, none the less, that such relationships as can be found [notably, Darrow (1932) and Darling (1940)] seem to confirm this theory.

Psychosomatic Studies.—While the data of the researchers in the field of psychosomatic relationships are pointed more toward the significance of a specific physiological condition in a total personality pattern, they tend to confirm the conclusion which emerges from these diverse studies of individual differences. Thus Miller (1939) finds that emotional status (inhibited aggression) and blood pressure are related for his psychotic cases. Since we know that aggressive tensions can become organized as a personality trait, so that the individual reacts aggressively to an unusually wide range of situations, we should expect that blood pressure would be somewhat elevated in these instances. From our present point of view, more interest attaches to the general conclusion of the psychosomatic school, that the physiological quality of the organism, no less than the inner personal pattern, is a variable in these cases. Some individuals may become more aggressive because of an autonomic reactivity which reinforces and embeds experiences in which an aggressive pattern was acted out.

At present, the psychosomatic school raises more questions than it answers. Allergies, for example, have been shown to be correlated with deviant personality patterns [Riess and DeCillis (1940), Card (1939), and Wittkower (1938)]. It would seem likely that a combination of a physiological sensitizing factor and a personality imbalance is necessary to the development of an allergy. The nature of the contribution (if any) of the physiological to the psychological component is unknown. Perhaps they are completely independent; but there may be some connection, by way of an autonomic or a chemical function.

Summary on Autonomic Functioning and Personality.—It appears to be definitely proved that the quality of autonomic functioning is related to the pattern of inner traits which will be developed by the individual. Further, this relationship is harmonious with what we know of the autonomic in connection with violent emotions. Persons with marked autonomic reactivity and slow recovery are likely to be unstable, anxious, and nervous. They may also be afraid of failure and may be handicapped in developing ego strength, as a result. Lowered autonomic thresholds and weak inhibitory mechanisms may be the basic factors. Studies with more

complex and composite measures of physiological function would seem to offer the greatest possibilities for checking these hypotheses.

Central Nervous System

Kempf proposed the autonomic nervous system as the basis of personality and the central system as an efficient device by which the autonomic gets what it wants. He would not, however, deny that the quality and characteristics of the central system affect the total personality. In fact, the frontal lobes of the cerebral cortex, through connections with the thalamus, exercise a decided, if indirect, influence on the autonomic. Various lines of evidence suggest that individual differences in central nervous functioning are also important for personality.

Intelligence.—It is obvious, first of all, that intelligence is an element which has been omitted from all preceding discussions. Yet intelligence plays a part in developing these complex systems of expectancies and attitudes which define the unique personality. It has been possible thus to ignore the significance of intelligence because at every intellectual level, except the very lowest, one finds a substantial variation in personality patterns. Thus it is clear that intelligence is not the crucial factor that it might at first glance seem to be.

The quality of the cerebral cortex is presumed to be the physical basis of intelligence. We are pretty sure that gross size of the cortex is not important or, even, weight in proportion to body weight. It may be speed of function, or balance of various parts, or some other unknown variable, which determines relative mental ability. At any rate, this intellectual level in turn influences the complexity and rigidity of the total personality, the success with which conflicts will be met, and the view of the environment which will be adopted. Comparative intellectual level is usually recognized—vaguely, if not clearly—and this evaluation enters into the Self-image. High intelligence, none the less, is not a protection against emotional instability or actual breakdown. It probably functions as a source factor in the determination of various specific traits, but in ways not yet clear.[5]

Lobotomy.—Indirect evidence of the importance of the central control over the autonomic comes from the effects of an operation severing the

[5] Rosanoff *et al.* (1941) suggest that the hereditary factor in their studies of identical twins who developed delinquent, neurotic, or psychotic trends is a vulnerability to cerebral trauma. The evidence offered, however, is not convincing. The hypothesis certainly deserves careful study.

connections between the frontal lobes of the cortex and the thalamic area.[6] Considerable interest has been aroused in this operation by the report that it provides noticeable relief for persons with long-standing, severe anxiety and depression, compulsiveness, and suspiciousness. Freeman and Watts (1942) report that a majority of psychotic patients suffering these symptoms got substantial improvement from lobotomy.

The negative side of the outcome is the loss of certain intellectual functions, particularly those involving deliberation (Robinson, 1946). In some instances, there is distinct euphoria, occasionally to the point of a rather childish irresponsibility; in others, a "flattening" of the emotions and a state of inertia. Exaggerated self-consciousness disappears, but it may be replaced by indifference to social expectations. Some of these results may be due to the intellectual deterioration noted (loss of ability to suspend judgment, deliberate, and evaluate), while others relate to the freeing of the autonomic from excessive central control.

The Electroencephalogram.—Since the discovery that the cortex has a complex, fluctuating electrical activity, theorists have run wild with speculations about this function as the ultimate basis of personality and thought. Unfortunately, we know very little about the EEG (electroencephalogram) as a correlate of psychological processes.

Jasper, Solomon, and Bradley (1938) examined EEG records for assorted behavior problem children. They reported that 71 per cent showed "abnormal" patterns, 59 per cent "very abnormal." But we do not know exactly what an abnormal or a very abnormal EEG record is. Michaels and Secunda (1944) challenge the findings of Jasper and his associates, stating that only in one group (the enuretics) did they find evidence of abnormal cortical rhythms. Brazier, Finesinger, and Cobb (1945) compared EEG data on 100 neurotics and 500 normal adults; they cautiously report "some" abnormality in the neurotics, especially when these are grouped by symptoms. And Hadley (1940) casts a discouraging shadow over the controversy by reporting that most of the EEG measures are of low reliability (correlations of .01 to .61, retests after a few weeks) and consequently that any personality differences related to the EEG would appear to be fluctuating, rather than consistent, if indeed they exist at all.

[6] The thalamus and the hypothalamus are nuclei, technically in the central system but functionally more related to the autonomic, specifically involved in the visceral and facial expression of emotion. They may also involve some vague conscious functions, particularly the feelings of pleasantness, unpleasantness, excitement, and depression. Lobotomy, the operation mentioned, does not destroy the cortical tissue, but cuts the tracts through which inhibitory impulses apparently flow from the cortex to the thalamus.

Visual Phenomena.—The eye is an outgrowth of the brain, and retinal cells have many of the characteristics of true cortical cells. Furthermore, modern man is so dominated by visual controls that much interest in visual phenomena as correlates of personality was inevitable. We have even ventured to suggest (Chap. IV) that the basic pattern of personality is, in most instances, a visual frame of reference, and that such tests of visual perception as the Rorschach probably derive their validity from the fact that most mental functions are patterned on a visual prototype.

Fluctuation of Visual Percepts.—In connection with his chemical theory of introversion-extraversion, McDougall suggested that the rate of fluctuation of a visually perceived ambiguous figure should be related to this trait. He predicted that the introvert would see a reversal of perspective more frequently than would the extravert. This was not confirmed by Guilford and Braly (1931), using questionnaire test scores and normal subjects; however, Hunt and Guilford (1933) reported a significant difference between manic-depressives and schizophrenics, the latter showing far more fluctuations. (Schizophrenics, it will be remembered, are often alleged to show an extreme degree of introversion.)

Various psychologists have also studied visual flicker in relation to personality, but without success. Cattell (1946) concludes that fluctuation of visual percepts is not an index of his general "oscillation" factor.

The Autokinetic Phenomenon.—One of the most interesting of visual phenomena is the autokinetic phenomenon, the spontaneous apparent movement of a fixed point of light in a completely dark room. This movement has been an object of interest to many investigators, and several have suggested that it has some relationship to personality. There are wide individual differences in the extent of apparent movement, especially when people are tested in isolation (Voth, 1941). This is a reliable function; *i.e.*, retesting shows approximately the same amount of motion. Voth implies that introverts see far wider sweeps of the apparently moving light than do extraverts. Sexton (1945) reports statistically significant differences between abnormal cases of schizoid and extraverted make-up, the schizoids reporting much greater movement. This parallels the report of Hunt and Guilford on fluctuation of a visual figure.

Night Vision.—A third interesting and probably related observation is that "night blindness," or very poor vision under dim illumination, is related to personality. Under dark adaptation the individual is tested for recognition of letters and simple visual forms with lighting just above the threshold of visibility. Livingstone and Bolton (1943) find neurotic soldiers far below the norms of RAF personnel, anxiety neurotics being

particularly low. Eysenck (1945) confirms this, finding the diagnostic accuracy of the dark-vision test especially good for anxiety cases.

An Explanatory Hypothesis.—How can we coordinate such curious data as the fluctuation test, the autokinetic phenomenon, and the dark-vision test with an inner personality pattern? Provisionally we suggest the following theory:

The individual tends spontaneously to develop a frame of reference by which he evaluates his environment and establishes his own relation to the environment. If this frame of reference is well differentiated and well anchored, the individual feels secure; he has the situation under control. The frame of reference, as was noted above, is likely to be anchored to visual experiences and settings.

If now we remove the visual background (completely, as in the autokinetic experiment, or partially, as in the dark-vision and fluctuation studies), those individuals who have not adequately introjected their environments, who are not completely objective in their mode of thinking, may be presumed to feel insecure. In the autokinetic situation, their world seems to be highly unstable and susceptible to subjective variation. In the fluctuation test, they cannot hold a given perspective firmly in the visual field; the percept fluctuates involuntarily and fairly often. In the dark-vision test, they probably lose their ability to identify even very well-known objects; the blotting out of the familiar, security-giving background causes even everyday objects to seem changed and distorted.

But which is more fundamental, the visual experience or the frame of reference? Does the inner personality determine the development of this unstable orientation, or does some quality of visual mechanism or cortical integration provide a wavering foundation for perceptual organization? At present, we cannot say. As with so many of the neurological correlates of personality, we can only assert the existence of a connection, without being more specific as to detail.

The Endocrine Glands

Another prolific source of theorizing about personality lies in the rapidly expanding science of endocrinology. The study of persons suffering from abnormal glandular conditions provides conclusive proof that the hormones have an impact upon personality. From this finding, some popularizers have evolved elaborate and often highly imaginative theories in which the normal personality is also a product of glandular secretions.

Among those who have exaggerated the importance of endocrine glands in the determination of personality is Louis Berman. In two books, *The Glands Regulating Personality* (1928) and *New Creations in Human Be-*

ings (1938), he has made claims for endocrinology far beyond any reasonable factual basis. (With almost no evidence, he argues that "the neurotic and the deteriorated, the insane and the criminal" are victims of glandular derangements and can be cured by glandular therapy; he speaks of the "profound control of the entire process of maturation of the personality" which can be attained through endocrine measures.) Quite in contrast is the sober conclusion of Hoskins (1941): "Before psychology, sociology and criminology can be convincingly rewritten as merely special aspects of endocrinology, many more facts than are now available will have to be collected and integrated."[7]

One of the cautions which Hoskins and other experts emphasize is the interdependence of the endocrines. While it is possible to ascertain certain physiological changes which are the immediate effects of excessive thyroid secretion, this condition also affects other glands, and their hormones in turn produce modifications in other areas. In some instances, it has been found that a specific disorder is immediately an outcome of underactivity in one gland, but the true cause is overactivity of another, causing an inhibition of secretion from the first. Thus the formulation of "adrenal types," "pituitary types," and so on, on the basis of clinical symptoms, is exceedingly hazardous.

A second warning relates to the source of these data. Even if an excess of thyroxin produces overactivity, jumpiness, tension, and similar effects, we are not justified in reversing the equation and concluding that all persons showing these symptoms have hyperthyroid conditions. Personality differences related to abnormal glandular activity do not provide a sound basis for decisions about normal glandular functioning in relation to normal personality variations. With these cautions in mind, let us consider some of the data on specific glands.

The Thyroid.—One of the simplest and most carefully studied of the endocrine glands is the thyroid. Located near the larynx, it is more accessible to investigation than are the others; it also, in many instances, manifests abnormality by an obvious swelling.

The one basic function of thyroxin, the thyroid hormone, is to regulate oxygen consumption and, hence, energy output. The basal metabolic rate, while not solely determined by the thyroid, is ordinarily considered an excellent index of the production of thyroxin. Persons suffering from hypothyroidism (subnormal production of the hormone) thus are characterized by sluggishness, inertia, and dullness. In children the condition is associated with a marked drop in intelligence; glandular therapy thus can cure some—but by no means all—cases of subnormal IQ.

[7] Hoskins (1941), p. 348.

On the personality side, hypothyroids are likely to be lethargic and unresponsive, but sometimes they show a truculent irritability. Some observers have described them as depressed, dissatisfied, and distrustful—a picture reminiscent of Kretschmer's schizoid temperament. In line with this is the report that some cases of schizophrenia—though not very many—show decided improvement as a result of thyroid medication.

On the hyperthyroid side (cases of excessive hormone production), we find the symptoms to be increased nervous tension, excitement, and anxiety. The reactivity of the autonomic nervous system is exaggerated. The patient is characteristically jumpy, overactive, and restless.

The symptoms of the hyperthyroid patient seem to be directly related to energy level, and may be presumed to be an immediate outcome of the excessive glandular secretion. In the case of hypothyroidism, however, many clinicians suspect that the personality changes are, in part, products of learning and social influence. The individual is aware of and resents his sluggishness; thus he may occasionally flare up, displacing his hostility onto others. That he would feel depressed and dissatisfied, in view of his handicap, is also easily understood without referring to hormonal influences as such.

Various students have tried to tie up these clinical findings with observations of normal people. Typical is the report of Dispensa (1938), who correlated basal metabolic rate with scores on the Bernreuter and Humm-Wadsworth personality inventories. In no case was there a significant relationship obtained. The same conclusion is justified by numbers of other investigations. Intelligence is also unrelated to metabolic rate, within normal populations. Thus we are forced to reject the notion that normal variations in activity, energy level, nervousness, or intelligence should be traced to individual differences in thyroid function.

Emotions and Thyroid Conditions.—While it is obvious that hypo- or hyperthyroidism may affect one's emotions—by way of energy level—and thus have indirect influences on personality, it is worth emphasizing that the reverse also seems to be true. Several psychosomatic studies are rather convincing in revealing a hyperthyroid state which followed a tense, excited emotional condition, of fairly long standing. There is also some reason to believe that chronic depression may lower the thyroid activity level. These findings throw even more doubt upon the hypothesis that personality is determined by the glands. More accurate seems to be the statement that the personality is a psychophysiological unit, with happenings on the emotional and the biological levels influencing each other in various ways.

The Parathyroid.—There are four parathyroid glands, two clinging to each thyroid. The outstanding feature of deficiency of parathyroid hormone is muscular tetany, which often grades off into convulsions and death when the parathyroid glands are completely destroyed by disease or operation. It was once believed that the convulsions were due to excessive alkalinity of the blood, but this is no longer accepted. The deficiency does lead to a marked lowering of the blood calcium level; injections of calcium salts relieve the symptoms temporarily.

Both Mateer (1935) and Berman (1938) agree that children reported as behavior problems show more signs of parathyroid deficiency than control groups. It would seem likely that the muscular irritability, restlessness, and difficulty of control might account for many behavior difficulties. The average teacher is not sufficiently medically trained to identify signs of glandular abnormality; she is much more likely to accept an explanation of misbehavior in terms of original sin. Parathyroid hormone injections have cured a few (but not all) such behavior-problem cases.

Excessive secretion of the parathyroids is rare. A few cases have been reported; the physical symptoms include high blood calcium; thickening of the blood, softening of bones, owing to removal of calcium; and muscular weakness. The most common psychological symptom is apathy; however, nervousness, irritability and, at times, confusion are reported.

The Adrenals.—Functionally there are two parts to each adrenal gland: the cortex and the medulla. The medulla is the source of adrenalin, which is intimately related to the sympathetic nervous system and the effects of strong emotions. The cortex secretes its own hormone, cortin, which is now recognized as having great physical and psychological importance.

Cortin Deficiency.—Persons suffering from cortical deficiency show such symptoms as insomnia, irritability, loss of sex drive, and uncooperativeness. On the physiological side, there is a disturbance of salt metabolism; particularly, greatly increased intake of sodium chloride becomes necessary. Cortin has been found to have some capacity to restore fatigued autonomic nerve fibers, although the exact significance of this fact is not known. It may have some connection with the finding by Liddell *et al.* (1935) that sheep suffering from an "experimental neurosis" can be quieted and returned to more nearly normal behavior by cortin injections, whereas adrenalin interferes with adaptive behavior and increases the neurotic agitation.

Excess of Cortin.—An excess of cortin, either by injection or as a consequence of disease, results in premature sexual maturity, "virilism"

(exaggerated masculine appearance) in females, and precocious sexual behavior. Many of the personality changes, however, are said to be a consequence of the changes in appearance and in the attitudes of other people; it is by no means clear that the hormone has any direct psychological effects. The increase in sex drive may be related to the increased production of gonadal hormone.

Adrenalin.—Curiously enough, as our knowledge of the adrenal gland has increased, the importance of adrenalin has declined. Most of the phenomena formerly ascribed to adrenalin have now been found to depend on cortin. There is even some question as to whether adrenalin is secreted at all when the organism is in a peaceful environment; but there is no question that the "emergency reaction" of violent emotions includes a sharp increase in output of adrenalin.

It may, thus, be impossible to have any condition of hypoadrenal production, except insofar as certain individuals seem to have difficulty in mobilizing themselves for emergencies. One can easily locate such personalities, but no data exist regarding their adrenal functions.

There is a well-known condition of excessive adrenalin secretion, hyperadrenia. The symptoms, including extremely high blood pressure, perspiration, blanching, cold extremities, and nausea, are obviously those of the emergency adrenal secretion and the sympathetic nervous system. Attacks occur in the absence of externally identifiable emotional stimuli, but anxiety and nervousness are usually present. Whether these mental states are the result or the cause of the attack is unknown; however, the presence of tumors in such cases indicates that there is at least a physiological foundation or readiness for the attack.

The Gonads.—Biologically, all human beings are somewhat bisexual. The embryonic sex structures of male and female embryos are virtually indistinguishable, and it is not especially uncommon to find some male hormone produced by adult ovaries and some female hormone production in adult males. There are numerous lines of evidence which indicate that at least a few "male" and "female" personality traits are related to the balance existing between these male and female hormones in the blood stream.

The effects of castrating males are well known—at least, in the animal kingdom. Castrated horses, bulls, and hogs are more docile, less aggressive, and less active than their unoperated fellows. Studies of castrated human males seem to agree that there is a parallel reduction in energy level and emotional responsiveness. Many observers, however, report a certain cold intensity of emotion, particularly hate, which leads to premeditated violence under suitable conditions. Much of this, one hazards, may be due to

resentment for the handicap and denial of a normal love life, displaced onto any person who becomes a source of frustration.

Hyperactivity of the male sex glands leads to an increase in sex drive and to somewhat increased dominance. After roosters have formed a "pecking order," injection of a submissive cock with male hormone may cause him to move all the way to the top of the dominance hierarchy. Data on hyperactivity of the gonads in human beings are hard to obtain, partly because most men have no standard of normality in sex drive or behavior with which to compare themselves, partly because so many taboos block the study and report of such conditions.

Experimental Data.—The relation of the gonadal hormone to psychological characteristics has been established experimentally for humans, being thus virtually the sole hormone known to affect normal personality traits. Sollenberger (1940) studied the interests and attitudes of maturing boys and related these to the urinary excretion of male hormone. He found that there was a correlation of .51 between Furfey's measure of developmental age and amount of hormone, and showed that this was somewhat independent of actual chronological age. Thus, at least during the adolescent period, hormone production apparently does determine maturity of interests to a marked extent. It is clear that this cannot be extended too far, however, as many males with undeveloped testes develop mature interests and are brilliant in their fields—usually lacking, of course, any strong interest in members of the opposite sex.

Benedek and Rubenstein (1939) have shown an interesting parallel between the ovarian hormone cycle and emotional attitudes. Independently one of these investigators studied vaginal smears from a group of women patients who were being psychoanalyzed by the other. It was shown that, when the glands were producing a surplus of follicular hormone, the emotions were directed outward and there was a heightened interest in social contacts, especially with men; when progestin was the chief hormone produced, the psychic orientation was inward and personal. At the transition there was likely to be some flightiness and irritability. While this is a long way from proving that feminine extraverts and introverts are determined by permanent excesses of one or the other hormone, it is suggestive of what future researches may bring forth.

The Pituitary.—Like the adrenals, the pituitary has several functional parts and, according to some investigators, a whole galaxy of hormones. Other endocrinologists hypothesize that there are really only two or three pituitary hormones, the apparent multiplicity being due to what the receiving tissue does with the substance on arrival.

The Posterior Pituitary.—The pituitary has at least three functional areas, the posterior and anterior lobes and an intermediate zone. The posterior lobe secretes one or more hormones which influence water metabolism and smooth muscle activity, but it seems to have no psychological significance. The intermediate zone also produces a hormone, but its human function is unknown.

The Anterior Pituitary.—The anterior pituitary apparently has some kind of status as an endocrinological switchboard. It may accelerate or depress the rate of secretion of any other endocrine gland. For obvious reasons, this throws confusion into many researches on the ultimate origin of certain abnormal symptoms.

In its own right, the anterior pituitary produces certain abnormal states, of which we shall mention gigantism and acromegaly, dwarfism, and Fröhlich's syndrome. In each of these, both physical and psychological effects are noted.

Gigantism.—An excess of the growth-stimulating hormone can produce a general exaggeration of body size, if it is present in childhood, or deformity of the soft parts of the bones, if it develops after maturity. The former condition is known as gigantism, since the individual develops into a (comparative) giant; the latter is designated as acromegaly. Curiously enough, the psychological symptoms reported are somewhat contradictory. Pituitary giants are said to be rather absent-minded, unable to concentrate, and irritable; acromegalics are reported as having a great deal of courage, forcefulness, and initiative. In these latter cases there may be accessory stimulation of the thyroids and the gonads. The symptoms of the gigantism group may be due to the psychological difficulties that such persons almost inevitably encounter as a consequence of their physical abnormality.

Dwarfism.—A deficiency of anterior pituitary hormone may interfere with physical growth. The individual reaches full physical maturity with a height of 4 feet or less. Many circus freaks come from these pituitary categories.

On the psychological side, the only trait often reported for dwarfs seems to be an excess of aggressiveness. By the logic of other endocrine relationships, this should be reversed, as a shortage of this hormone might be expected to lower somewhat the vitality and vigor associated with aggressive personalities. One is thus inclined to accept the explanation that the aggressiveness of the dwarf is a compensation for his physical inferiority.

Fröhlich's Syndrome.—A special variety of obesity, with extreme sleepiness and a generally passive, submissive personality, is associated with an inadequacy of anterior pituitary and gonadal hormone. The pituitary is

apparently basic, inasmuch as some successful cures are reported with injections of this hormone.

Summary on Endocrines and Personality.—The data clearly prove that abnormal conditions of certain endocrine glands can produce distortions of personality. There is not, however, a great deal of specificity to these effects. A quick review of the preceding pages will show that nervousness, irritability, and over- or underactivity may result from a variety of glandular states. This suggests that many of these endocrinological disorders may result in a change in general efficiency of bodily function, which in turn gives a feeling of frustration or insecurity, because the usual balance has been disturbed. The effect of social comparisons and the attitudes of people in the environment must also be given considerable weight. On the whole, the results do not justify any substantial reliance upon endocrine functions as determiners of specific personality differences. Inherent differences in size and reactivity of endocrines may, however, be among the factors producing individual differences in temperament.

This conclusion is in line with the most elaborate study of definitely abnormal personalities in relation to their endocrine constitution. Freeman (1935) studied both gross and microscopic anatomical characteristics of the endocrines of 1,400 psychotics: cycloids, schizoids, and paranoid and epileptic cases. While many of the glands were abnormal, in no case could he find any consistent parallel between mental pattern and glandular make-up. This does not rule out future findings in this area, but it leaves us room to doubt that the glands have any but an indirect relationship to personality.

Other Biochemical Factors

Some interest has been displayed in other features of body chemistry, independent of the hormones. Such studies have included measures of various characteristics of the urine, saliva, and blood. The only significant trends seem to involve measures of alkalinity and acidity.

Ludlom (1918) found that psychotic patients with excitable tendencies averaged on the alkaline side, whereas body fluids from patients with depression and mental confusion as outstanding symptoms were generally acid in reaction. Rich (1928) correlated ratings of personality with these measures. Fraternity brothers rated each other on such characteristics as emotional excitability; Rich found a consistent but not large tendency for the men rated excitable to fall on the alkaline side and unexcitable men, on the acid side, for both saliva and urine. Unfortunately for what looked like a significant lead toward understanding some broad temperamental differences, Hamilton and Shock (1936) seem to have proved that

the excitable individual tends to make himself more alkaline. When faced with an unusual situation, such as being measured in the nude or having a blood sample taken, he breathes more rapidly and deeply, and thus ventilates his lungs to an extreme. The carbon dioxide level is lowered, and chemical measures thus reflect an alkaline condition. The authors feel that the psychological characteristic is basic and the biochemical, a product. Once again we must reflect that the personality has both psychological and physiological components.

Biology and Personality

All psychologists readily concede that personality develops upon a biological foundation. From that point onward, considerable disagreement arises. Some theorists—and researchers—incline to the belief that physiological variations, such as Sheldon's constitutional patterns, or inherent levels of reactivity of the autonomic—low threshold for pain, or genetically oversize endocrines—predispose the individual to a particular personality organization. Others hold that, abnormal physiological states excepted, the personality can be molded in almost any direction by environment.

If conclusive evidence existed, the argument would have been settled before this. We can, therefore, state only what the logic of the situation seems to justify. With the exception of the studies on the effects of heredity, few research findings point unambiguously to biological factors influencing individual differences in human personality.

It would indeed be surprising if, within the range of normal physiques, any close relationships were found. Correlations of .20 to .30 may represent the maximum we shall ever derive for biological measures and personality traits. As was suggested in Chap. VIII, even fairly deep traits of personality may be determined by numerous factors, physiological, social, and biographical. How, then, can we expect to find close agreement of specific physical characteristics and personality? It is plausible to suggest that heredity determines chiefly physical structures, and that these in turn set rather broad limits within which the personality can vary. As far as the data at present indicate, environment is considerably more potent than heredity in setting the final personality pattern.

Summary

The human individual is a product of interaction of heredity and environment. Without biological heredity there would be no matrix upon which the environment could impress models and expectancies; without environment, innate tendencies would never be called forth. There is

some evidence that heredity sets limits within which environmental variations can produce differences in personality pattern. While quantitative statements are unsafe, it seems clear that, among adult personalities, variations due to environment are substantially greater than are variations due to heredity.

Surveys of specific biological mechanisms by which hereditary influences might operate would seem to bear out this conclusion. While the autonomic, central, and endocrine mechanisms have demonstrable relationships to personality phenomena under extreme or episodic conditions, consistent evidence of a connection with persistent traits of the normal personality has not been found.

Inasmuch as the total personality is a product of numerous influences, there is room to doubt that biological factors will ever be found to correlate very closely with measured traits. What seems likely is that more refined experimental techniques and statistical analyses will reveal the extent to which a number of observable traits have been slanted or loaded by fundamental biological factors.

Suggestions for Reading

The Anatomy of Personality, by Fry and Haggard, gives the case for hereditary determination of personality in fairly sound form. While many of their cases are excellent, they could be interpreted other than as evidence for hereditary factors. For the effects of endocrine glands, a good textbook should be consulted: *e.g.,* R. G. Hoskins' *Endocrinology.* Berman's *New Creations in Human Beings* gives an extreme view of possible endocrine influences on personality; it mixes many valuable facts with about an equal number of unfounded imaginings and must be read skeptically. Morgan's *Physiological Psychology* gives various data relevant to this chapter. Hunt's *Personality and the Behavior Disorders* includes excellent chapters in this field by L. J. Saul, L. S. Penrose, Stanley Cobb, Nathan W. Shock, and D. B. Lindsley. Eysenck's *Dimensions of Personality* reports some novel experiments on physiological variables as related to neurotic personalities.

CHAPTER XVIII

SOCIAL DETERMINANTS: THE FAMILY

Each individual personality is the product of a unique biography. The particular pattern of fears and loves, of prejudices and stereotypes, of traits and values which identifies each person is the plausible, perhaps inevitable, outcome of his life history. It has, therefore, become a commonplace of psychological study and counseling that the personality can be understood only in terms of its past.

It may be worth while to restate the theoretical grounds on which this conclusion has been justified. Specifically, the following points seem to be important:

1. Personality problems, such as specific maladjustments, phobias, compulsions, and prejudices, may be defined as ways of perceiving and judging certain situations. The individual with a phobia for the sound of running water [Bagby (1928)] perceived this stimulus as a sign of danger. The girl who became nauseated when her sexual emotions were aroused (page 107) interpreted love-making situations as dangerous and to be avoided. Similarly, a person with a marked degree of seclusiveness looks upon social occasions as something from which he should withdraw.

2. These perceptions were acquired, generally in a social setting. The kinds of meaning which give rise to significant personality traits are usually defined by the group. The burnt child dreads the fire, but he does not develop a phobia unless some adult endows this situation with meaning beyond the physical pain involved. A tendency to react with depression to failure in school must obviously be traced to some social definition of that situation, by teachers or others.

3. Once a given way of perceiving a specified situation has become established, it tends to transfer to others in accordance with the principle of equivalent stimuli. Thus the child establishes his first attitudes toward authority in relation to the parent, but this can transfer to teachers, employers, and heads of governments.

Organic versus Social Factors.—The importance of group determinants, especially the family constellation, becomes clear in this framework. The law of primacy holds that the first experience within a given category

will have unusual weight in determining future percepts in that category. An event which indicates women to be dominative, demanding creatures biases future judgments of women. It is then easy to "see" evidence confirming this opinion.

What is not so clear is the relationship between the organic factors described in the preceding chapter and the social influences of parents, teachers, and playmates. If the perceptual factor is primary, why do not all children subjected to a given culture develop identical personalities? Why does one child develop a mother fixation, while another does not, as a result of similar family treatment?

The best answer we can give at the present time is that organic factors (perhaps the autonomic threshold or other obscure phenomena) determine *what the individual takes from his environment.* While two children live in the same physical environment, their behavioral environment may be markedly different. If one is organically slanted in the direction of timidity, his world may be full of threatening, negative valences which have no reality for his brother. A slight difference in thresholds of response may mean that one girl is significantly affected by a situation which has virtually no impact on her sister. We cannot stress too much that the mere existence of physical similarity in environments does not mean similarity in personality determinants. Every individual lives in his own private world, common with that of others by virtue of the laws of physics, differing in accordance with the laws of psychology. A full understanding of any individual, therefore, requires that we discover *how this person perceives his environment*—not how it is perceived by parents, school teachers, or social workers who investigate it.

The Value of Group Comparisons.—In the light of this concern for the subjective meaning of environmental experiences, it may seem that group comparisons lose their value. Of what avail to study accepted and rejected children, when within each group the resultant patterns may vary widely?

The value of group data can be demonstrated pragmatically. While individuals subjected to a given environment differ among themselves, they differ even more when compared to persons from a contrasting background. There is a correlation between the world of scientific observation and the private world of the unique personality; as later pages will show, this correlation becomes quite obvious when we study enough cases to iron out the effects of organic variables and unknown environmental factors.

It follows directly from all the foregoing that we can never expect a perfect correspondence between social determinants and the resulting

personality. On the basis of the evidence now available, however, it appears certain that prediction from social variables to personality will always be surer than from organic conditions, pathological conditions excepted. To obtain high levels of accuracy, both aspects must be taken into consideration.

Variety of Social Determinants.—The first social factor influencing the individual personality is the family situation—the treatment received from parents, in terms of affection, authority, and discipline. Through the family, however, various other social groups have their impact on the child. The economic order, for example, has a decided influence on the kind of family life and, to some extent, religious organizations also affect family patterns. The national culture sets certain limits as to permissible ways of treating children and imposes definite requirements of a positive sort, as well. Even beyond the national culture we have the intangible larger frameworks, such as Oriental and Western culture, influencing parent-child relationships.

As the child emerges from his limited life space in the home, he is influenced by other social groups, such as the gang, and by social institutions, such as the school system. In all these contexts the child is constantly receiving rewards and punishments; his judgment of certain acts is modified by the standards of those around him; he imitates leaders and conforms to a social norm; and he adopts as part of his own personality the requirements of those groups with which he identifies himself. Thus at maturity he will be a product of many group influences.

Primary and Secondary Groups.—It is customary to distinguish between primary and secondary groups in terms of the intimacy of personal contact involved. Primary groups include the family, the gang, and perhaps fraternities or social clubs in which the emphasis is personal rather than institutional. Secondary groups are those in which the value of social contact, as such, is subordinate to certain impersonal factors: *e.g.*, a political party, a labor union, or a church, in which the grouping is determined by certain principles or conditions external to the individuals specifically involved.

The child first learns about people in his family and in his play contacts with other children. Thus his fundamental pictures, the basic standards upon which he formulates his judgments of others, are determined in primary group situations. Secondary groups are more likely to be responsible for implanting certain stereotypes and common values. Traditionally it has been considered that primary-group relationships were vastly more important in personality development than those in secondary groups. Today we are inclined to modify this view. While

primary social contacts still take precedence, secondary influences are meriting greater consideration. The home is declining in importance as an industrial, educational, religious, and social institution; outside contacts have greater significance in personality determination. Some of these secondary-group factors will be considered in later chapters.

Special Significance of the Family.—The family has a unique place in the development of the individual. First, it is the one group which is common to virtually all human experience. With a very small minority of exceptions, every child is born into a family group and lives in a family for a considerable period of time. Second, the child has his earliest experiences in a family setting, and his interpretation of these experiences will bias all his later perceptions. When he encounters some novel relationship in adult life, he is likely to act on the basis of some apparent similarity to an experience of childhood. Quite unconsciously one's treatment of a business executive, a politician, or an employee may be based upon transference of an attitude from some family situation.

The parents, of course, play a very important role in the child's development. They give affection and dispense discipline. They reward and punish. They encourage certain traits and discourage others, acting either on personal prejudice or as agents of the culture, indoctrinating the values of the larger group. Furthermore, they serve as models which the child imitates. When there is a discrepancy between parental instruction and parental behavior, the child is prone to follow the latter. Thus the parents are major determinants of the hopes, fears, and expectancies of the child.

Love Relationships

The child has no innate tendency to love the parent, and it is unlikely that mother love or father love is innately determined. In the nature of the situation, however, the child should soon come to react positively to the parents, because they are sources of food and comfort. On the parental side, there is strong cultural pressure to manifest love and affection for the child, even if inwardly the parent recognizes that the child is unwanted. In the process of caring for the child's physical needs, the parent is likely also to have a variety of pleasant experiences and to develop a real affection if none was present before.

Adequate manifestations of affection are important to the personal integrity of the infant. The concept of security stresses the idea that the child's perception of his universe should be friendly. If he encounters too much unpleasantness, he will evolve a view of life as threatening and hazardous. If, on the other hand, he receives adequate care, cuddling,

and attention, he will look upon people as sources of gratification and will see the world as a safe and interesting place to explore.

The study of individual differences in infant development, as related to the amount of affection provided by the mother, for example, encounters many difficulties. Parents are prone to give interviewers or observers the culturally approved answers and performances. Few mothers will openly express dislike of their babies.

The study of orphans, however, makes possible a comparison of children reared in a family setting with others receiving no care except the formalized procedures of an institution. Various investigators have found that the institutional situation is likely to have destructive effects on personal integrity. Ribble (1944) has been especially emphatic about this. Reporting on studies of a series of 600 infants, she asserts that lack of adequate cuddling, stroking, and close physical contact with some adult constitutes a serious handicap. Some of the infants so deprived, she notes, react with marked negativism, others with exaggerated regression. The negativistic symptoms include refusal to suck, vomiting, breath holding, and constipation. The regressive reaction is sometimes even more alarming; a kind of stupor develops, peripheral circulation is poor, and nutrition is very unsatisfactory. Both of these unfavorable reactions have been successfully treated by introducing a foster mother, who regularly strokes, caresses, and fondles the child.

A close relationship between this reaction during infancy and personality at adolescence is suggested by the work of Goldfarb (1943, 1944). This investigator compared two series of adolescents: one group which had been orphaned and placed in institutions prior to the age of eighteen months, the other composed of children who had not been institutionalized until later. The groups which had been placed in the impersonal environment in infancy showed marked symptoms of emotional deprivation; as adolescents they were relatively apathetic and immature. There seemed reason to doubt that they would ever recover from this early lack of affection. Once the expectancy is established in the child's mind that people are cold, indifferent, and unloving, it will be difficult or impossible to replace this by a different attitude.

Infant Feeding and Personality.—The feeding experiences of the infant are likely to be much more important than are his sexual experiences. One naturally wonders whether breast feeding and weaning are demonstrably related to later personality characteristics. The evidence seems contradictory. Peterson and Spano (1941) report that they could find no connection between such experiences and personality at either nursery school or adolescent levels. Hill (1937) reports that his cases show some

relationship, and Maslow and Szilagyi-Kessler (1946) show a definite but curvilinear relationship.

The Maslow data are based on reports obtained on college students from their mothers. Reported length of breast feeding was related to scores on a questionnaire measure of security feeling. Highest security was found for those breast fed over a year and those not breast fed at all. Minimum security scores were made by those who were breast fed a rather short time. The authors suggest that the mothers who could not nurse their children gave an excess of caressing and affection to try to compensate for this deprivation. The mothers were mostly foreign born and may be assumed to have felt guilty regarding failure to nurse the child in the traditional manner.

This would suggest that the manner of feeding and caring for the child is more important to security than is breast feeding itself. The infant reacts readily to minimal stimuli of muscular tension, tone of voice, and other expressions of the mother. Dislike for nursing or rejection of the baby may easily be communicated in a manner entirely unconscious and virtually unobservable.

The Oedipus Complex.—The theory of the Oedipus complex was evolved from studies of adults. It has become plain, however, from studies of children, that there are many instances in which boys become overly attached to their mothers, girls to their fathers. For instance, a little girl of four is heard to say to her father, "Maybe mama will die, then I could marry you and keep house for you." The persistence of such attitudes beyond the fifth year, however, is considered psychologically undesirable; at this age most children begin to give up the attitude of rivalry toward the parent of like sex, and instead adopt the mechanism of identification. At this time the little girl begins to become more feminine in her manner, whereas the boy shifts in the direction of the active, rowdy, aggressive pattern which is socially expected of him.

More important than the relative frequency of this emotional relationship is the problem of its effect upon the personality when it is not successfully resolved. While numerous case studies suggest that mental health is impaired by persistence of the Oedipus complex, single cases are always confused by a number of possible alternative explanations. Stagner and Krout (1940), however, devised a statistical approach which eliminates any bias of the investigators for or against the Freudian theory. They reported that

"Boys who wanted to be like father do not worry frequently—but girls who wanted to be like father do. Boys who wanted to be like father have few feelings of remorse, no thoughts of suicide, and think life is definitely worth living.

. . . Boys who wanted to be like mother . . . are likely to have feelings of remorse, dizzy spells, and suspicions of enmity."[1]

The mechanism of identification with the like-sex parent is obviously a basic step in the process of developing in accordance with social expectations. Females in our society are expected to show certain personality traits; a girl who persists in trying to follow the masculine pattern is subject to criticism and disapproval. A boy who is effeminate in his behavior is often an object of ridicule and sarcasm. The occurrence of a family constellation, therefore, in which the child becomes excessively devoted to the parent of the opposite sex and tends toward identification with this parent, is prognostic of poor adjustment in later life. A freshman girl who came to our attention because she scored unusually high on the Bernreuter scale for neurotic tendency described her family as follows:

"Our family is not a close unit. My father and I have always been close pals. . . . I think Dad is an ideal man. . . . (Mother) is extremely nervous. . . . We are rather antagonistic toward each other. I rarely confide in anyone, and if I did confide in Mother, I feel that she would not be in harmony with my ideas."

Further questioning elicited the fact that her home was something of a battleground, with each parent vying for her affection with favors of one sort or another. The girl looked upon herself definitely as a rival to her mother. While she had not identified with her father, she showed marked symptoms of insecurity and instability. The same pattern in a boy is indicated in the following autobiographical excerpt:

"Yes, I have felt particularly bitter toward him (father) already. The reason lies in his former quarrels with my mother. When some point of difference arose, my mother would invariably before long break into a spell of bitter crying, which would culminate in a period of nervous illness. . . . When I was younger I would simply slink off to bed. . . . I know now that if I ever feel that way again at the age I am now I will not hesitate to interfere physically against him in these matters."

While the excessive affection for the mother is more disguised in this instance, it is obvious that here, too, we have a case of persisting attachment. This boy also made a very high score for neurotic tendency on the Bernreuter.

In contrast to these cases of maladjusted personalities who exemplify persistence of the Oedipus relationship, we may cite an instance of an unusually well-adjusted college man, both by Bernreuter test score and

[1] Stagner and Krout (1940), p. 351. Reprinted by permission of the American Psychological Association.

personal observation. In this case, the normal shift to identification with the father is clearly apparent:

"I think that my strongest attachment in my childhood was to my father. Our interests have always been pretty much the same, *i.e.*, we have enjoyed fishing, hunting, hiking, and talking as well as working together. He has been the best pal that I have ever had and I was with him much more than with any of my boy friends. . . . When our work was done, we played together. The idea and judgment of us both was considered when we made plans for the things that we did together."

Overprotection.—One of the functions of parents is that of protecting the child against physical harm and other potential dangers. The mother who is herself emotionally well adjusted is likely to be able to provide just the proper amount of protection: warning of dangers and preventing the child from entering very dangerous situations, yet allowing the child some freedom to experience and learn his powers and limitations for himself.

When the protective behavior of the parent becomes excessive, it is likely to prevent the child from developing self-reliance and independence of thought and action. While overprotection is generally associated with an apparent excess of affection, it may actually be a disguised manifestation of dislike for the infant. A mother who rejects her baby may feel guilty for having such thoughts and, by the mechanism of reaction formation, go to an extreme in fondling and protecting. Such overprotecting behavior actually hampers and frustrates the child and so, in a way, seems unconsciously to fulfill the mother's original tendency.

It seems generally agreed [Symonds (1939), Newell (1936), Bonney (1941)] that overprotected children manifest emotional immaturity, shyness, and withdrawal from difficult situations. Having developed no confidence in their own abilities, they are likely to lean on adults or stronger playmates for advice and control.

Rejection by Parents.—The personality of the child can be disturbed by excessive affection (if it involves overprotection and interference with normal development), by persistence of the Oedipus complex beyond its usual time, or by withholding of affection. For most cases labeled "rejection," the actual treatment is likely to be indifference and denial of affection, rather than an active attitude of dislike for the child. In some instances, however, we get this extreme response: *e.g.*, when the child is illegitimate, or was born before the mother was ready for children, or represents a tie binding her to a disliked husband. Various studies of rejection by parents seem agreed that the result is likely to be an aggres-

sive, suspicious, destructive child. The following case, abstracted from a detailed report by Hewitt and Jenkins (1945), is illustrative, if perhaps extreme:

"Robert is a fourteen-year-old white boy of illegitimate birth. . . . The chief complaint was made by the mother who states that 'Robert is the meanest devil God ever gave any mother for a son.' Robert has been known to the juvenile court authorities since the age of nine years. At that time his mother filed a complaint, stating that he had removed the clothing from his smaller sister on two occasions. He had frequently displayed temper tantrums and fits of jealousy of this baby sister seven years younger than himself. . . . Since the age of eight years he had been openly antagonistic toward his mother, even kicking and striking her. . . . Robert . . . was also caught smoking and called his mother numerous vulgar insulting names. . . . He broke a window, ran upstairs, and asserted he was going to jump out and kill himself. When his mother grabbed him, he choked the baby. Two weeks later he ran away again, but returned home without being noticed and took $3.50 from his mother's purse and a dollar bill from his father's suit. . . .

"The mother has said that she hunted for things that would hurt her husband's feelings, and finally felt most successful in using Robert. The father and his sister both state that the mother hated Robert from the first, never complimented or praised him, never kept her promises to him. At Christmas time she showed a great partiality toward the other children in the gifts she purchased, and when the father gave things to Robert, he had to conceal their real value from her. For the past six years the mother has taunted Robert and told the relatives that her husband is not the boy's father." [2]

To this extreme degree of rejection the boy's reaction of aggressiveness does not seem excessive. The amount of insecurity and frustration imposed upon him is certainly unusual. That this kind of treatment normally leads to aggressive behavior, if not actual delinquency, is confirmed by the work of FitzSimons (1935), Newell (1936), Symonds (1939), and Bonney (1941).

The manner in which the child perceives his parents (as accepting him or rejecting him, loving or disliking, tender or harsh) may be expected to transfer to his interpretation of society in general. The relationship to the parent serves as a prototype for relationships with industry, government, religion, and other institutions. Further attention will be given this point in succeeding chapters.

Authority and Discipline

The parents are under social pressure to conform to the standards of the culture in various respects and to impose conformity upon their

[2] Hewitt and Jenkins (1945), pp. 37-41. Reprinted by permission.

children. The child must learn to respect the taboos of the community and to accept its moral imperatives; in other words, his Super-Ego must be patterned according to the local standards. The second major relationship between parent and child, therefore, is the authority-discipline function of the family.

Firm authority exercised by the parents does not necessarily involve insecurity feelings for the child; in fact, we have some reason to think that a firm, consistent pattern of discipline, suitably intermingled with manifestations of affection, gives maximum security. Inconsistency of discipline may arouse feelings of insecurity because the child feels that he is punished arbitrarily according to the passing mood of the parent.

Parental Personality and Authority.—While the culture imposes certain requirements on the parents, the manner of carrying out these functions differs widely in different families. Some fathers follow the strictly dictatorial tradition of the patriarchy, whereas others attempt to allow the child a proper amount of practice in self-determination. Unfortunately, the studies available indicate that most parents exercise more rigid authority than psychologists consider advisable for good personality development in the offspring. Stogdill (1931) reports his study as follows:

"The test employed has disclosed a definite attitude which may be said to be characteristic of the parent group. The parental attitude differs to a marked degree from that of the mental hygienist group.

"The chief characteristics of parental attitudes as distinguished from those of the mental-hygienist group are: (A) greater insistence on observance of moral taboos; (B) greater insistence on parental authority; (C) greater insistence on adherence to group standards and social customs; (D) relative indifference to the effect that such insistence may have upon the child's emotional and mental adjustment to life." [3]

It appears, then, that the undesirable practices with regard to discipline are likely to center around the parent's own personality; *viz.*, the fact that the parent has unsolved emotional complexes related to moral taboos, which prevent him from dealing intelligently with such problems; that the parent has feelings of inferiority or at least a need for dominance, and the act of dominating the child fills this need; and that the parent has identified himself with his group, hence lays emotional stress upon the child's conformity with the standards and customs of the group. These conclusions could be reached on other evidence than that of Stogdill, but his study gives neat confirmation of the general thesis that the parent's treatment of the child is largely determined by his own personality traits.

[3] Stogdill (1931), p. 13.

The effects of such treatment upon the child's personality have been the object of numerous investigations. All of them seem to agree that the trend is for excessive authority and certain types of discipline to be detrimental. Anderson (1940) compared pupils' reports of their own parents with classmates' judgments of pupil personality. Pupils who described their parents as nagging, criticizing, and punishing them strictly were rated by their fellows as quarrelsome, disobedient, and nervous. Lewis (1945) administered a questionnaire test to elementary school children and compared the results with teachers' ratings of parent attitudes. Children with desirable personality patterns were significantly more likely to come from homes with more liberal attitudes toward child care and training.

The results of these studies are subject to numerous exceptions. In individual case work one often encounters an adolescent who not only has been unharmed by an authoritarian home atmosphere, but accepts it, believes it was good for him, and will undoubtedly perpetuate it. The decisive factor apparently is the way in which the child perceives the discipline. Stogdill (1931) comments that college students who "resent having been punished" by their parents and those who feel that their parents were "too moralistic" favor more freedom for children. But a group who simply said they were "severely punished" favor *less* freedom for children, *i.e.*, they have adopted the parental pattern.

Parents as Models

The family is a learning situation, and much of the learning is related to the aspects that we have already described, *viz.*, affection and discipline. A third feature must be noted, as well. This relates to the fact that the parent is also a model, a pattern which may be imitated by the child—or which may be rejected, in which case the child may strive for a completely different pattern.

Patterson (1943b) has reported on observations of 117 mothers and their children. The mothers took the Bernreuter Personality Inventory; the children were studied by nursery-school ratings, the Brown inventory for children, and other devices. Generally speaking, the results are inconclusive. The correlations obtained were not significant, but they were generally in the expected direction: for example, high neurotic scores of mothers were positively related to jealousy, excitability, and sensitivity of children.[4]

[4] The complexity of interpretation of such studies may be noted here. At least three mechanisms might be postulated to account for this correlation: (1) the mother is sensitive to emotional situations, and the child has inherited the same physiological mechanism; (2) the mother's excessive responsiveness to emotional stimuli has often

The same inconclusive but positive trend is found in comparisons of adolescents with their parents. Hoffeditz (1934) and Sward and Friedman (1935) correlated scores on the Bernreuter inventory for fairly large groups of subjects. In no case are the data such as to indicate close parallels between parent and child.

Hoffeditz collected Bernreuter inventory scores for 100 fathers, 100 mothers, 111 sons, and 145 daughters. Since more than one child is found in most of the families, she computed not only the direct correlation of each parent with each child, but also the correlation of the average of the two parents with the average of the children.

TABLE 15.—PARENT-CHILD SIMILARITIES ON THE BERNREUTER INVENTORY

Scale		Mothers	Sons	Daughters
N (emotionality)	Fathers	.16	.06	.23
	Mothers	...	.01	.27
S (self-sufficiency)	Fathers	.09	.20	.09
	Mothers	...	.05	.16
D (dominance)	Fathers	.15	.19	.20
	Mothers	...	.02	.28

Table 15 summarizes the individual parent-child correlations. It indicates only very low relationships on these traits. However, it is notable that the father-son correlation is each time higher than the mother-son correlation; the mother-daughter coefficient similarly is greater than that for fathers and daughters. The same general tendency is reported by Sward and Friedman, who found that children correlated with like-sex parents .29, .31, .31 and .11,[5] while cross-sex parents correlated .16, .24, .27 and .05. These findings seem to support our general view on the importance of identification.

Hoffeditz computed the correlation of the average of the parents with the average of the children for the 100 families studied. These correlations for the three trait measures, *N*, *S*, and *D*, were respectively .28, .21 and .29. Each of these is higher than any of the coefficients reported in Table 15 for the corresponding trait measure. This suggests that a more

upset the child, changing the child's threshold in the direction of greater sensitivity; and (3) the child is simply imitating. At present we have no convincing data as to which of these is correct or whether all three are involved.

[5] For groups respectively of Jewish boys, Jewish girls, gentile boys, and gentile girls.

definite relationship is predictable for a group of children and a group of parents than for any individual parent and child. All such correlations are, of course, reduced by the fact that the child is molded not only by parents, but also by teachers, friends, and playmates.

Parent-Child Clusters in Attitudes.—Newcomb (1937) correlated attitudes toward the church, war, and communism for a large number of parents and children. The correlations of parents with their children were as follows: church, .63; war, .44; and communism, .56. These correlations are considerably higher than those reported for the more general traits of personality reported in the preceding paragraphs. It is likely that attitudes on specific questions are handed down in much more direct fashion, by what amounts in many cases to deliberate instruction on controversial topics. The personality traits are less subject to such indoctrination.

Newcomb then attempted to see if children agreeing with their parents on one attitude agreed on others also. By selecting cases arbitrarily he raised the parent-child correlation on the church from .63 to .96; for this group the correlation on communism was raised from .56 to .62 (only slight increase). When the selection was done so as to raise the communism correlation to .96, agreement as to attitude toward the church was raised from .63 to .74. Thus we see some tendency for children agreeing on communism to conform also on religious attitude. The coefficients on attitude to war were not changed by these manipulations, presumably indicating that it was unrelated to the church-communism cluster.

Another device used by Newcomb was to select certain parents whose attitudes on church and communism were highly correlated (favorable to religion, unfavorable to communism) and then compute the church-communism correlation in the children. This selected group of children showed a correlation of .60 on these two attitudes, while in the whole group the two had correlated only .43. It thus appears that when parents have highly consistent attitudes, the same sort of consistency is more likely to appear in the children.

Newcomb's data appear to justify the conclusion that there is a tendency, albeit small, for children who are in close agreement with parents on one attitude to be somewhat closer than the average on other attitudes; and for parents whose attitudes are internally consistent to have children whose attitudes reflect this consistency to some extent. All these processes are entirely in harmony with the view that the child receives suggestions from the parent which are important, even if not always decisive in determining his attitudes.

Parents Not the Only Determinants.—In interpreting the foregoing studies on the effect of parental practices and characteristics upon the personality of the child, we must keep in mind that the parents are by no means sole determiners of the child's behavior. These studies were made on adolescents. During the years, they have been influenced by companions, schoolteachers, and other individuals, institutions, reading matter, motion pictures, and so on. If their social and emotional reactions were identical with those of their parents, it would be a matter for surprise. Aside from the question of primacy, it is doubtful if the parents have much advantage in imposing their ideas on children beyond the preschool age.

Effects of Specific Influences

It is apparent that family treatment influences the child's personality in many diverse ways. If we attempt to assess the *relative importance* of these different interactions, we encounter marked difficulties. In one case study it may seem that identification is the major factor, whereas in another it may seem that disciplinary practices were particularly significant.

A statistical device which gives at least some suggestions as to the relative importance of these different factors is the following: a group of 132 college students took a personality test and also filled out a lengthy autobiographical questionnaire. The average score on the personality scales was then computed for each person reporting a given influence in his childhood: *e.g.*, 15 students answered "No" to the question, Were your parents happily married? As Table 16 shows, these students were substantially more emotional and more seclusive than the group answering "Yes."

From these data it would appear that the characteristics of the parents as such are not significant, but that their practices with regard to the child are more so. The mother is clearly more important than the father, in terms of the differences shown, which is plausible in our culture, in which the mother is chiefly responsible for child care. Techniques of discipline are relatively unimportant, except for nagging; this is even more apparent in the complete questionnaire, as several questions on punishment proved to have no implications whatever for personality as measured.

The impression which derives from a study of the table as a whole is the fact that there is something more than the specific parental practices and characteristics listed. This something more might be called "good family morale," or an atmosphere of good will between parent and child. If we should lump together such items as having a happy home life, father taking a personal interest, idealizing the father, confiding in

TABLE 16.—RELATION OF PARENTS TO PERSONALITY OF ADOLESCENTS [1]

Question	Ans.	N	*W* Emotionality	*Y* Self-esteem	*Z* Seclusiveness
1. Were your parents happily married?	Yes	110	51.3	50.4	53.1
	No	15	58.3	48.7	60.9
2. Was your early home life happy?	Yes	113	50.2	55.7	54.5
	No	13	74.3	46.9	70.6
3. One or both parents dead?	Yes	19	63.6	30.8	53.8
	No	111	51.1	52.2	55.8
4. Was your father an emotional man?	Yes	59	55.3	52.6	59.5
	No	67	51.3	47.4	50.7
5. Father take a personal interest in you?	Yes	77	47.8	52.4	50.7
	No	47	59.3	44.3	61.0
6. Father demand obedience?	Yes	87	51.1	46.8	54.9
	No	41	51.8	48.4	54.3
7. Was your father stern?	Yes	34	54.7	52.4	56.3
	No	88	51.0	48.6	52.9
8. Did he use physical punishment?	Yes	35	57.0	47.7	61.0
	No	93	50.8	49.3	52.3
9. Father away from home much?	Yes	14	70.3	47.2	66.1
	No	112	51.0	48.7	52.8
10. Did he play much with you?	Yes	40	48.1	51.0	49.8
	No	86	55.3	47.8	57.2
11. Did you idealise him?	Yes	40	42.4	60.9	52.8
	No	81	57.9	43.1	54.7
12. Ever feel ashamed of him?	Yes	21	68.1	47.4	57.3
	No	107	50.5	50.2	55.0
13. Mother an aggressive woman?	Yes	49	56.8	46.5	52.7
	No	75	50.6	48.8	55.2
14. Mother emotional?	Yes	85	55.8	49.6	54.9
	No	42	47.3	47.5	51.8
15. Did your mother spoil you?	Yes	34	64.8	43.9	51.1
	No	92	47.9	50.2	55.6
16. Did she nag?	Yes	37	66.9	41.8	62.8
	No	89	46.6	51.1	51.1
17. Did you confide in her?	Yes	82	48.8	52.4	51.5
	No	44	60.9	42.8	60.7
18. Did you idealise her?	Yes	72	49.4	53.3	50.8
	No	48	57.1	44.2	60.4

[1] Note: the "desirable" combination of scores is low on *W*, high on *Y* and low on *Z*.

mother, and being spoiled by her, we would have a composite which might be far more significant than any of these specific responses. The child is a product of the total family situation, including its emotional overtones; no single stimulus will shape the entire personality or even a particular trait.

Family Morale

The best attempt to measure family morale and relate it to specific personality traits of adolescents seems to be that of Stott (1939, 1941). He administered to some 1,800 Nebraska adolescents a questionnaire covering parent-child relationships and a personality inventory. The family-life questionnaire was intercorrelated and subjected to factor analysis, from which three "patterns" emerged: a group of families characterized by mutual confidence, affection, and companionability between parents and children; a "family-discord" pattern; and a "nervous-tension" pattern. Special analysis was made of the first two factors. The results were as expected: children coming from homes where the "good-morale" pattern predominated were better adjusted, more independent, and more satisfactorily related to their parents than were the average of the group. Similarly, those coming from homes where the second pattern was manifest were, in general, poorly adjusted. As Table 17 shows, this effect is more clearly observable in social adjustment, but in every respect the

Table 17.—Correlations between Desirable Parent-Adolescent Relationship and Desirable Traits of Personality [1]

(Stott, 1941)

California Personality Score	Correlation
Total adjustment	.62
I. Self-adjustment	.50
a. Self-reliance	.27
b. Sense of personal worth	.32
c. Sense of personal freedom	.55
d. Feeling of belonging	.44
e. Freedom from withdrawing tendencies	.46
f. Freedom from nervous symptoms	.33
II. Social Adjustment	.62
a. Social standards	.27
b. Social skills	.42
c. Freedom from antisocial tendencies	.44
d. Family relations	.65
e. School relations	.43
f. Community relations	.36

[1] Reprinted by permission of Duke University Press, publishers.

correlations favor the conclusion that good family morale is productive of desirable personal traits.

Effects of Undesirable Family Patterns.—Stott found only one clearly "good" family pattern, but at least two undesirable patterns. Hewitt and Jenkins (1946), studying guidance-clinic cases, find three unfavorable types of family constellation, and also report that each has its characteristic product in terms of the child's personality.

The family patterns identified from an extensive set of data were the following: *parental rejection* (unwanted pregnancy, mother hostile to the child, mother unwilling to accept her role as parent, and so on); *negligence and exposure* (unkempt home, irregular home routine, poor supervision of children); and *family repression* (father hypercritical, unsociable, mother dominating, discipline inconsistent). These were studied in relation to three syndromes in the personalities of 500 boys: *unsocialized aggression* (attacks others, destroys property, is cruel); *socialized delinquency* (cooperative stealing, gang activities); and *overinhibited behavior* (seclusive, worrying, and so on).

The correlations between the family situation and personality are shown in Table 18. It is immediately apparent that each kind of family will,

TABLE 18.—INTERCORRELATIONS OF FAMILY SITUATION AND PROBLEM BEHAVIOR PATTERNS

(Hewitt and Jenkins, 1946)

Situational pattern [1]	Frequency in 500 cases	Correlation with behavior pattern		
		Unsocialized aggressive	Socialized delinquent	Overinhibited
Parental rejection.....	101	*.48*	.02	−.20
Negligence and exposure.	78	.12	*.63*	−.17
Family repression.....	106	.10	−.12	*.52*

[1] Cases were classified as illustrating a given family situational pattern when it was clearly defined. Hence the frequency does not add up to 500.

most of the time, produce its characteristic effect on the boy's personality. Rejection goes with unsocialized aggression, whereas socialized aggression is related to the negligence pattern. The overinhibited (and usually nondelinquent) boy is quite rarely exposed to these two family con-

stellations, but the chances are good that he experienced a repressive family life.

It is particularly important, in evaluating these studies, to note that Hewitt and Jenkins were analyzing case histories collected by social workers, whereas Stott was using the reports of the adolescents themselves. We are thus able to rule out, or at least minimize, the criticism that Stott's data are artifacts produced by the adolescents' attitudes. There is an obvious possibility that Stott's high-morale pattern was produced by boys and girls who had well-adjusted personalities and who thus tended to give pleasant reports of home life, while the maladjusted group gave distorted accounts. This possibility does not enter into the Hewitt-Jenkins material; hence we are confirmed in the impression that the characteristic family pattern has a real impact upon the traits and activities of the child.

Individual Variations.—It is none the less necessary that we maintain reservations with regard to the interpretation of any of these statistical studies. The child's subjective attitude toward his family still remains the crucial variable. If affection is perceived as "smother love," it will be resented. If excessive authority is interpreted as evidence that the parent really cares for the child, it is accepted cheerfully. Stott found that siblings did not give identical reports on the family constellation. Delinquent boys have brothers who, often enough, lead well-adjusted lives.

The beliefs and expectancies which the child acquires about his parents will be the decisive factors in his attitudes. A mother who is objectively kind and affectionate may be perceived as coldhearted and cruel. Dershimer (1938) describes an interesting case of a boy who had been treated cruelly by a nurse. When the mother discovered the fact, she immediately discharged the nurse, but for a long time the child showed evidence of believing that his mother had known of this treatment and tolerated it. The basis seems to have been his feeling (which many parents cultivate in their children) that his mother was omnipotent and omniscient. Thus she must have known of the mistreatment and approved of it, since she did not stop it.

Statistical analyses of parent-child relationships, therefore, can never be a dependable guide to the interpretation of an individual case. They provide the *most probable* statement of the relationship; but special circumstances may lead to deviations in particular individuals. The unique personality continues to maintain, to some degree, its freedom from purely statistical analysis.

Sibling Relationships

Cooperation and Competition.—As the child's relationships with his parents give his first training in reactions to authority, or superiority-inferiority patterns, so his contact with his siblings and other children give him training in reactions toward his equals. We find here the development of cooperative and competitive reactions, friendships, dominance and leadership, and so on. While all these reactions are influenced by parental training, there is some reason to believe that social contact with children of approximately equal age is the more important determiner.

Early Conflicts.—Many psychologists have placed stress on the fact that the intrusion of a second child into a home where the first-born has reigned supreme for some time must inevitably precipitate a conflict. Evidence, however, seems to indicate that this is not a universal phenomenon.

Some children show keen jealousy at being thus dispossessed from their position in the family circle. Foster (1927) describes a boy of five who had developed whooping cough. The doctor cautioned him not to cough near the baby, for she might become sick and "then you won't have a baby sister any more." Thereafter he was found several times coughing directly into the baby's face!

These conflicts do not result in jealousy as an isolated symptom, according to Foster, but as part of a total personality maladjustment. This difficulty includes such symptoms as selfishness, excessive pugnacity or timidity, bed wetting, nail biting, thumb sucking, and other habits indicative of emotional unrest. Some of them may be interpreted as expressive of the unverbalized wish, "I would like to be a baby again." Later in life the implicit disturbance may be noted without these overt symptoms.

In the contacts of the child with outsiders, these jealousy reactions may be important determiners of ability to adjust. Leatherman reports a case of a girl who came to her clinic for aid in social adjustment:

"Case 266. Lucille, a junior, is much interested in Scout work, but has trouble in getting along with the girls of the troop of which she is captain because she antagonizes them by alternately bossing and patronizing them. On analysis the difficulty was found to be connected with the fact that her own younger sister is a member of the group, and she simply projects onto the other girls her relationship to her sister. Some analysis of the situation was possible, transfer of her captaincy to another group not including her sister was also arranged. Books on adolescence were recommended and read. Frequent conferences on methods of directing younger people were employed to further her own understanding of her relationship with her sister as well as with the others. Final report cannot be made

at this time, but improvement has already been noted, and commented on by Lucille's superiors." [6]

Most children undoubtedly recover from the actual jealousy reaction before adolescence. Less than one-third of the group of 132 college students whose autobiographies were analyzed (Table 16) replied "Yes" to the question, Do you have any conflicts with a brother or sister now? However, this group which did answer "Yes" was on the average more emotional than the contrasted group. Perhaps those individuals who were more emotional than the average would have been more inclined to carry on childish controversy.

Parents may to some extent be responsible for sibling rivalry. Block (1937) reports a study of urban adolescents who wrote anonymous descriptions of their difficulties with their mothers. The complaint that "she holds my sister or brother up as a model to me" was voiced by 67 per cent of boys and 76 per cent of girls. This would suggest that the conflicts between siblings might die out more rapidly if they were not refreshed by this parental practice.

Parent Substitutes.—In addition to direct cooperation and conflict relationships among siblings, we find quite frequently that an older child may serve as a parent substitute for one or more of the younger children. This is especially likely in the large family, or in one where both parents work, or in any situation depriving the younger child of normal relations with the parents. The following paragraph was written by a girl whose father was very reserved and stern, her mother very busy, so that she was thrown a great deal into the care of her older sister:

"I think that I was most strongly attached to my older sister. My father was too far removed, too omnipotent (she was really afraid of him) . . . my mother too real, too much concerned with our material bringing up to be anything but just 'mama.' . . . It was to my sister Dorothy that I really felt most deeply attached. She was so kind, so patient, so extremely wise and right that although I would act capricious and demand my own way, I never really stopped trying to be like her and unconsciously worship her." (But later she writes this: "Where shall I live? An apartment with my sister? I don't want to be under Dorothy's great influence—for once I want to be free and develop individually." Which, of course, is also a characteristic reaction of the adolescent to his parents!)

Imitation, suggestion, and identification will operate as successfully in the relation of younger to older sister as they would in the relation of child to parent. It must be realized, therefore, that we may have the same

[6] Leatherman (1928), p. 110.

psychological picture repeated at different levels in the family, and also that under special conditions the child may identify himself with an outsider and develop reactions which are unlike those prevalent within the family circle.

Birth Order and Personality.—Closely related to this question of jealousy and other relationships among the siblings of a family is the matter of birth order. Many psychologists have gone to great lengths to expound upon the kind of personalities one finds in only children, oldest children, the youngest child in the family, and so on. The oldest child is the first (and most rudely) dispossessed from his sovereignty in the family circle. The youngest is always the "baby." And so on with many other superficially apparent relationships.

The unfortunate thing about these generalizations is that, while they may work out in specific cases, they do not hold true as valid statements about any number of personalities. Several statistical studies are in close agreement on this point. In one which covered several hundred college boys, Stagner and Katzoff (1936) found no consistent differences favoring or unfavorable to any position in family order.

Family Size and Personality.—Psychiatrists have called attention to the dangers of overcrowded families in terms of mental health. This overcrowding may be psychological as well as physical, *i.e.*, the more children there are, the less each can profit by the care, affection, discipline, and guidance of the parents. In the study by Stagner and Katzoff just cited, and also in the group of 132 students that has been mentioned previously, there is a distinct tendency for the children of smaller families to be better adjusted emotionally, to be more self-confident, more sociable, and so on, than those of larger families. The differences were not great—but neither were the differences in family size. A better sampling of large families might be expected to give even more decisive results. The economic advantage of small families may be important here.

Similarities of Siblings.—Since siblings have somewhat similar heredity and environment, one might expect more than chance correlation to occur when they are compared as to traits and attitudes. Unfortunately, we have been able to find no statistical studies of sibling correlation on generalized traits. The study by Holzinger which has been cited in the chapter on heredity gives the correlation of emotional sensitivity for identical twins as .56, but for fraternal twins, having similar environment but different heredity, only .37. We should anticipate, then, that siblings, having differences in both heredity and environment, would correlate even less.

In the field of attitudes, we have the result of the study by Kulp and

Davidson (1933) on internationalism, in which they obtained the following correlations: for pairs of brothers, .29; for pairs of sisters, .41; brother-sister pairs, .30. These coefficients are of a magnitude comparable to those already cited for agreement of parents and children, and may reflect only the common influence of the parents. However, two children fairly similar as to age and environment would also have a number of other determiners in common outside the family.

Newcomb found the following relationships using the 346 pairs of siblings obtained in his study: attitude to church, .60; attitude on war, .37; and attitude on communism, .48. The higher values here (as compared with Kulp and Davidson) may be the result of superior test material, or of greater age in Newcomb's test group with presumptive higher integration of the three attitudes tested. On the other hand, greater age also means more exposure to diversities of environment as compared with the importance of the home environment in younger cases.

The adequate study of sibling similarity cannot be achieved without detailed case histories of the entire family. We have observed in some families a principle of alternation, or a tendency for children in a large family to group themselves; the first and third, perhaps, will be similar; the second and fourth, similar but markedly different from the other pair. Such cases no doubt could be explained if one had the needed data on affection and antagonism in the family constellation, preferential attachment to parents perhaps. Jealousy between children is likely to be more intense for adjacent pairs than for those with greater age differences.

Adolescence

Changing Problems of the Adolescent.—In the foregoing pages of this chapter we have been primarily concerned with the problems of the prepubertal child, although adolescents have frequently been used as examples. While many factors remain the same, the period of adolescence introduces new requirements for adjustment, new stimuli, and new problems. Thus there are several problems worthy of our attention in this connection.

Sex Not the Basic Change.—Since adolescence is marked off by the maturation of the sex organs, *i.e.*, by the onset of menstruation in girls and complete spermatogenesis in boys, many authors have treated the adolescent period as simply a period of sexual awakening. There seems to be a great deal of evidence that this is not correct. In the first place, we have cited ample evidence that children at the prepubertal level have experiences of a sexual character. In the second, many of the personality prob-

lems noted in adolescents have no sexual aspect, or the sexual symptoms may be secondary to other more basic difficulties.

Adolescence is really of great significance because it is the transition zone between the dependency of childhood and the independence of maturity. In almost all primitive societies we find initiation ceremonies for the adolescent, which symbolize the putting away of childish things, the assumption of adult responsibilities. After this ceremony the initiate is given privileges and assigned duties which do not pertain to the child. The change in role is thus seen, from the cultural viewpoint, to be the decisive influence at the adolescent level.

American Culture Ignores This Change.—The cultural anthropologist notes a stubborn refusal on the part of parents in American culture to accept and deal with this change. Methods of treating adolescents are widely divergent and in most cases show no conception of the psychological importance of the changes taking place. Thus some parents try to keep their children as "babies," in a state of continued dependence, at a time when many influences are conspiring to bring about a rebellion in the youth against continuance of this status. Other parents wait until the child reaches a certain age, then suddenly and without preliminary preparation endow him with adult privileges and qualifications. Some try to treat their children as adults even in the earliest years. Only a group which seems unfortunately small tries to follow a definite plan of gradually increasing the child's responsibilities and freedom from adult supervision parallel to his increase in physical and mental stature.

Conflicts with Parents over Independence.—Many of the delinquents referred to in our discussion of character (Chap. X) showed a history of conflict with parents. This is particularly characteristic of foreign-born parents, whose culture heritage includes an ideal of strict supervision of children growing to maturity, and also markedly different notions of the appropriate activities for children and adolescents. The children, growing up in contact with youngsters who probably received more freedom, or who did things the former were not permitted to do, felt the parental restraint and rebelled against it. The outcome, often enough, was the development of forms of behavior which came into conflict not only with parents, but also with the law.

Refusal by parents to allow the adolescent reasonable freedom may, of course, have other results than delinquency. One common outcome is withdrawal into a world of books and daydreams; thus the basic desire is satisfied, even though only partially. Seclusiveness is to some extent a feature of this reaction. The youth may accept control outwardly, but rebel inwardly against this repression.

The adolescent's desire for independence is sometimes complicated by his desire to avoid responsibility. Leatherman describes the case of a graduate student who suffered from acute periods of depression. The description suggests that the girl is in a period of transition from one of dependence upon family to one of self-sufficiency. The change is painful because it requires taking the responsibility for decisions, mistakes, etc.

"Case 183. Ruth had never emancipated herself from dependence on her family. Even as a graduate student her personality was underdeveloped because she constantly shifted her decisions to her parents and teachers. She was just beginning to want to be self-directing, but did not know how to accomplish it; she was resenting just a little her family's telling her what to do about her personal affairs, and this gave her the stimulus to urge her new adjustment. 'I began to see my mother's side of the question as well as my own. Since that time I have had no periods of deep depression, such as I had before.' . . . She is teaching in a nearby town and is very successful." [7]

Inconsistency in Parental Expectations.—The adolescent behaves in accordance with his desires and expectations as to what is proper for him. His attitudes, in turn, are determined by the expectancies of his parents (and, to some extent, other adults) as to what is proper. Unfortunately, the typical American adolescent encounters inconsistent expectations on the part of the adult community.

We have commented that parents are too competitive with each other in terms of their children's performance. Mothers compete to achieve toilet training earlier, to have their babies talk sooner, to achieve higher levels in some respect, than others in the neighborhood. Particularly as adolescence approaches, pressure on the child to compete effectively and preserve family status in the community is outstanding. Block (1937) reports that 82 per cent of boys and 86 per cent of girls in her sample complained that their mothers "scold if my school marks aren't as high as other people's."

If the adolescent is to compete, he must develop some independence, firmness of purpose, and perhaps even aggressiveness. This runs counter to the adult requirement that the child be submissive to parental authority. The requirement that a boy be meek and submissive at home, but vigorous and self-defensive at play courts a split personality. Under such conditions, as Green (1946) has pointed out, "the child is not able to establish an integrated self-conception. . . . With the new conflicting expectations, on the part of parents and contemporaries, the child's anxiety

[7] *Ibid.*, p. 96.

reaches new heights, *a double set of guilt-feelings appear where previously there was only one.*" [8]

The emotional instability of adolescents has often been described, and their flightly, inconsistent behavior ridiculed. Some authors have associated these manifestations with the change in endocrine balance at puberty. While such influences may operate, we are inclined to stress the problem of changing role and social expectations, particularly the inconsistency of standards set by parents, as making a more important contribution to this instability.

Development of Sexual Interests.—In pointing out that adolescence is not uniquely characterized as the period of sexual awakening, we do not mean to imply that expansion of sex interests does not occur. Obviously the "pairing off" of mixed groups who may before have associated in a rather undifferentiated manner shows the appearance of more specific interests in sexual partners. This stage of development has great implications for the adult personality. If the boy has been brought up with unusual ideas about girls, or if a girl has been taught that she should never let a man kiss her until she is safely married to him, there are likely to be unpleasant tensions, conflict between the normal impulse to associate with members of the other sex, and this inhibiting attitude. The results of conditioning to the parents will show in the youth's attitude toward possible companions. Mother and father fixations, for example, will be reflected here.

Feelings of Guilt.—If the child has been taught very rigid moral principles, if he has exaggerated ideas of the importance of minor misdemeanors, he is likely at this age to develop intense feelings of guilt. According to the more intense Puritanical codes, even for a young man to look appreciatively at the lines of a girl's figure constitutes a grievous offense. With constant temptation on all sides, the emotionally sensitive youth is especially likely to feel that he is doing or has done wrong, to develop the "unpardonable-sin" delusion, to become depressed, and so on. Likewise a girl who lets a young man hold her hand may decide that she has committed a grave indiscretion, and may become emotionally upset as a result. The total amount of damage done to personalities by inflexible moral codes is inestimable.

Under the strain of developing physiological tensions, for which our society provides only one approved outlet, marriage (and that economically impossible for most young people), the youth is likely to develop a habit of masturbation. The absurd notion that this will cause insanity or

[8] Green (1946), p. 41. Reprinted by permission.

physical ill health is another source of intense unpleasantness and causes a conflict between the need for sexual release and the desire to avoid the horrible consequences which have been painted. The following case from Wile's collection illustrates how easily this may happen:

"Jane, a nineteen year old girl of excellent family, was disturbed by the fear of incipient insanity. As she walked along the street she was worried by the thought that she was being watched and that she attracted unusual attention and aroused comment. She complained that on entering a car or a room people began to talk about her. . . . Insomnia, fidgetiness, weeping, lack of concentration, and partial failure of memory were accompaniments of her distress, but all were subordinated to the fear that she was becoming insane.

"Stripping off needless details, the causation of this marked pathological trend of Jane's emotional and intellectual life lay in her twelfth year. An alert mother, watching over an only daughter with more care than judgment, thought she had detected the twelve year old girl in the act of masturbating. There was no preliminary investigation, no discussion, no wise counselling. The keynote of her remarks was, 'If you do that you will go crazy when you are nineteen years old.' The seed of doubt, fear and self-reproach fell upon fertile soil. When again, at the age of sixteen years, Jane was really detected in the act by her mother, the identical formula was repeated with an air of sincerity and finality."[9]

So, when Jane reached her nineteenth birthday, she expected to go crazy. Her own mother, whom she trusted, had told her as much! Quoting again from Wile, "She had had no instruction concerning the periodic functions which were to become a part of her natural development. Her mother . . . feared to speak truthfully with Jane, or to enlighten her as to the meaning of the numerous phenomena attendant upon maturation. She allied ignorance and innocence as identities. . . ." American parents are still under the impression that to be ignorant and to be innocent are the same.[10]

Other Adolescent Problems.—The problems of emancipation and sex are by no means the only ones of significance for the adolescent personality. We could discuss the increasing complexities of social adjustment, for example, going away to school (really a phase of independence), the task of seeking a job and other phases of economic self-sufficiency. Social conditions bring on most of the problems of the adolescent. Nowhere does the need for social reconstruction become so completely apparent as when

[9] From Wile (1926), p. 215. Reprinted by permission of Thomas Seltzer, Inc., publishers.

[10] Students are prone to ask, "Well, with all these dangers, how can you bring up a child correctly?" The author's favorite reply suggests starting with the parents about twenty years before the child is born.

one considers the unfortunate adolescent, suspended between two worlds, so to speak; neither a child nor an adult, but only too often with the intellect and the desires of the latter, the social and economic status of the former. Too often economic conditions prevent many activities which might fill the most wholesome places in the lives of youth.

As the data from our statistical study of childhood-adolescent consistency showed clearly, the personality of the adolescent is to a considerable extent formed in earlier years. However, this age is still a part of the continuous process of adjustment which characterizes all personalities. New problems are met, some of which we have indicated. Traits are solidified and integrated, or perhaps disintegrated by new, unexpected circumstances. The results are sometimes desirable, sometimes undesirable. On the other hand, adolescence is not the final stage in personality growth. Maturity still brings changes and reorganizations of habits and traits.

Summary

In this chapter we have presented many lines of evidence regarding the various family situations as they affect the development of traits and attitudes from earliest childhood through adolescence. In some phases of this treatment we have been able to draw upon statistical studies of a standardized nature; in others, child study and clinical observation have been our sources. It has been possible to demonstrate significant relationships between parental treatment of children and their later personality traits, correlations of a fair size between traits and attitudes of parents and children, and even correlations for paired children from the same family.

The cultural composition of the family as it imposes certain strains and tensions upon the child and the adolescent represents an influence upon personality which is often psychologically unwholesome. The moral code, for example, results in modes of sex misinformation which greatly handicap normal personality development. The growth of self-sufficiency and emotional maturity is needlessly handicapped by the protective character of many parental attitudes. It must be kept in mind, however, that many of these handicaps would be imposed by other elements of the child's social environment, even if they did not come from the family situation; indeed, the family functions only as the agent of the social order in imposing these restrictions.

Suggestions for Reading

Almost any good book on the family will cover this material in one way or another. The behavioristic view is well represented by Watson's *Psychological Care*

of Infant and Child; the sociological, by Reuter and Runnel's *The Family.* Meyer Nimkoff has two excellent books, *The Child* and *The Family* which deal with problems of personality. A somewhat psychoanalytic position is taken by Morgan's *Psychology of the Unadjusted School Child,* which gives a clear view of the development of the various adjustment mechanisms. Many valuable recent studies are reviewed in Chaps. 20, 21, and 22 of Hunt, *Personality and the Behavior Disorders.*

General writings on the effect of social groups on personality, relevant to this and the following chapters, are such as Groves's *Personality and Social Adjustment* and the very interesting little volume edited by Burgess, entitled *Personality and the Social Group.* Chapter VII of Plant's *Personality and the Cultural Pattern* is both sociological and psychological in approach. J. K. Folsom's *The Family and Democratic Society* explores some of the broad problems that are only mentioned here.

CHAPTER XIX

SOCIAL DETERMINANTS: THE FAMILY (Continued)

The child in the family is, if not a blank slate upon which the parents can freely write their own conception of what his personality should be, at least a slowly hardening plastic which can be molded within limits by external pressures. At first glance it may seem that the adult is markedly different. Husband and wife have been organizing traits, integrating attitudes and confirming their judgments about the world for so long prior to marriage that it would seem unlikely that major personality changes would result from the entry into a family in a new role.

There is a considerable amount of evidence to indicate that this is not correct. Adults do undergo personality transformations—slowly, perhaps, but surely—in this new context. The very factor of a new role in society, with the related change in social expectancies, contributes to change. The adolescent boy is now the head of a family; he is expected, and expects himself, to behave more seriously and responsibly. The onset of parenthood represents a major transition for both husband and wife. Before considering this situation, let us briefly examine the personality problems involved in marriage.

The Learning Process in Marriage.—Each spouse probably tends, quite unconsciously, in the initial stages of marriage, to impose his or her expectations on the other. Each brings certain pictures from childhood of the behavior of his own parents. These pictures provide a basis for judging the normality and success of his marriage. Since these pictures are different, neither will fit exactly. If the partners are willing to talk things over, clarify their ideas, and modify a few conceptions where necessary, personality development is achieved and happiness retained. In some instances, however, the attempt is to avoid discussion of topics on which there is disagreement, for the sake of avoiding pain to the partner (or to the self).

Here the learning process is likely to operate to block off more and more topics as taboo, with the result that neither person understands the other and each finds the very presence of the mate painful because of the strain involved. Moreno (1945) states that such problems are rather

common. He has made effective use of a novel technique, the *psychodrama,* in dealing with them. In the psychodrama, husband and wife reenact the scene of a quarrel or a painful situation, with the exception that they put into words all the thoughts which previously had been suppressed. This device facilitates the development of a new point of view on the situation; learning is possible when information is given.

Learning is easiest, of course, in the early stages of marriage. Not only are there fewer misconceptions about the partner to be broken down at that time, but other factors are favorable. Especially the positive valence of sexual attractiveness has its place. Learning is facilitated when there is a desirable goal at the end of the process. The role of each spouse as sexual gratification for the other makes easier the acceptance of the other's viewpoint and modification of one's own frame of reference.

Learning would probably be smoother and more successful if adolescents had better preparation for marriage. Contemporary romanticism, coupled with social taboos on information about sex and intimate personal relationships [*cf.* Stogdill (1931)], makes it difficult for young people to get a sound orientation on the kinds of adjustment each should expect to make. It will be of value, therefore, to consider briefly some of the common types of conflict found in American marriages.

Types of Marital Conflict

It has been customary to think of most matrimonial difficulties as centering around sex. Actually, such a conclusion is not justified by the facts. Several studies indicate the importance of conflicting habits, likes and dislikes, mental attitudes, etc. The interesting work of Harriet Mowrer (1935), although marred by a selection of cases which emphasizes the problems of the immigrant family, shows the wide range of conflict situations which may be expected to develop.

Culture Conflicts.—A type of conflict which appears commonly when immigrant marries native, or when two individuals of different cultural background marry, is so complex that the term "culture conflict" is about the only one comprehensive enough to describe it. The humor of "Abie's Irish Rose," "The Cohens and the Kellys," and other similar comedies centers around the differences in habit, preference, and expectation of people reared in differing cultures. In families having the same general culture pattern, there are still conflicts in specific fields, such as religion, educational level, and so on, owing to the fact that one individual prefers this form of life while the other prefers to behave differently.

Response Conflict.—Mowrer has classified certain cases as centering around "response conflict." "Affection," "intimacy," or some similar word

might be more appropriate. The essential feature of these cases is that certain habits of affection, leaning upon and being attached to other members of the family, the expectation of partiality and special consideration, etc., have been built up through the years of childhood. The "baby" of the family is likely to show this type of conflict, it appears. The following quotation, part of a conversation by the wife in one of Mowrer's cases, will serve as an illustration:

"I pay a great deal of attention to my children. He is jealous and says that he is just the boarder. He likes attention. He wants someone to pet him, give him his hat, and straighten his tie. I used to do that but now I give it to the children."

And the husband says:

"I like a home. I like to have a nice home, to have my buttons sewed on my clothes, and to have a wife pay some attention to me and be a wife to me. . . . She says she can get along without me, that she is just standing me until the children grow up. Then she will go with the children." [1]

In such a case, while sex conflicts may be present, it appears that these two people expected different things from marriage, and failed to reach a satisfactory compromise. In consequence, conflicts have arisen. The little manifestations of affection which define the marriage pattern for the man happen not to be part of the habit systems of his wife.

Dominance Conflict.—In many cases the conflict may more aptly be called one of dominance. Like the response conflict and, on a larger scale, the culture conflict, this type of difficulty is built upon expectations developed during childhood on the basis of contemporary marriages. Certain social groups grant dominance to the husband, others to the wife, while the current American trend is to balance, rather than to unilateral domination. A woman who expects to be treated as an equal, if she marries a man who expects to be "head of the house" in a literal sense, cannot be happy without making drastic revisions in her own habits. On the other hand, a man who allows himself to be dominated by his wife, a circumstance which may easily occur when a submissive boy marries a poised, self-confident girl, quickly finds himself in the painful situation of the "hen-pecked" husband. He is likely to be ridiculed and in other ways made to feel his inadequacy—a mode of treatment which may cause him to become more submissive, rebellious, or neurotic—or he may leave home to escape the unpleasantness.

[1] From Harriet E. Mowrer's *Personality Adjustment and Domestic Discord*, p. 190 Copyright. Used by permission of American Book Company, publishers.

Sex Conflicts.—Most of the conflicts mentioned will be reflected in the sex life of the couple, and so may be considered by many psychologists to be basic sex conflicts. Our view is that the other problem is basic in many cases, the sex difficulty being a symptom rather than a cause. In a large percentage of cases, of course, sex is fundamental and the other symptoms arise later. Even here problems based on individual peculiarities are probably less common than problems based on the type of training the couple have received as children, their expectations regarding marriage and the role of sex in marriage. Both boys and girls get rather definite expectations as to the nature of sex relations, often quite incorrect, of course. Deviations from these expectations, however normal, on the part of the mate will be misunderstood and will be a source of friction. One young woman, whose marriage ended in divorce with harmful results for her own personality and that of her infant son, commented:

"Whenever I showed any pleasure in sex, or took an active part in the sex act, my husband became very angry. He told me if he wanted that sort of thing, he could go to a prostitute. Wives were not supposed to enjoy sex."

Most husbands complain of the reverse attitude on the part of the wife. Girls brought up in the traditional fashion are likely to have been shielded effectively from sex information, and to react very antagonistically to the husband's sexual desires. When the husband insists, the wife says,

"I found my husband was not such a nice man. I thought he would be so fine. I found out that he was like other men. He wanted sex relations. . . . After I was married, I cried and just wished I hadn't married." [2]

The effect of these conflicts is to set up situations in which the individual must break up established habits of thinking and behavior, or adjust by some evasion. Neurotic illness, fantasy, drink, and other escapes are commonly noted as results of marital conflicts to which both partners do not adjust successfully.

Marriage May Help Adjustment.—In contrast with Mowrer's observations, we can, of course, find many marriages in which a maladjusted personality has been improved and stabilized. The following autobiographical excerpt is taken from the story of a man who in his earlier years had suffered from unfortunate home conditions and a severe inferiority complex which had developed in him a very poor social adjustment:

"Met casually a girl who was on the rebound from a break-up with a man she had fully expected to marry. Liked her company and drifted into an informal

[2] *Ibid.*, p. 232.

engagement, largely on the impetus of her rapidly developing affection. Married her in the mood of making the best he could of existing conditions. . . . Hard as it is to believe, the marriage founded on this basis has been a success, credit for which is acknowledged to be evenly divided."

Here the situation is that of a man badly in need of affection, who had been in love with a girl whom he placed on a very high pinnacle, but to whom he was unable to propose because of his feeling of inferiority. Meeting this second girl, for whom he did not feel strong affection, he was not inhibited by inferiority reactions and thus was able to marry and make a successful adjustment. One suspects that, if he had married his first love, his self-abasement reactions would have interfered seriously with marital happiness.

The problem of equality in marriage is one of considerable importance. A *felt* discrepancy (real or imagined) in social, educational, or intellectual standing may be a source of considerable irritation. This, of course, depends in turn upon the marriage partners' conception of the relative status of husband and wife. If the felt discrepancy is in the approved direction, it may cause little friction; on the other hand, a discrepancy in the opposite direction may be a source of serious difficulty.

Results of Marital Conflict

Marriage as a problem situation illustrates the trial-and-error process in personality development. A consideration of case histories of marital disharmony indicates that these go through an evolution of different types of behavior. In reading the following paragraphs, the student should consider the various responses described as equivalent and as subject to more or less free substitution. Fantasy as an escape may be tried, may fail, and be replaced by drink, neurotic illness, memory difficulty, desertion, or insanity. Learning is constantly going on.

Fantasy as Marital Adjustment.—Everyone daydreams and imagines things to be different from the way they really are. More confusion in the behavior of the individual, and in the understanding of others, is produced when these daydreams are acted out. Sometimes a husband or a wife who is dissatisfied with marriage imagines himself to be single again. When the individual tries to act out this fantasy, the situation becomes more complicated. Mowrer gives a case as follows:

"To me my husband is a puzzle. I just don't understand him. At times he will be so nice, and the next ten minutes he will be different. He likes to pose as a single man. A man from the candy store in the neighborhood came to me several times. Finally I asked him what he wanted. He told me that my hus-

band owes the store a bill for $15.00 for candy which he bought for a girl. The man at first thought he was single and thought he was rooming at my house."

Dr. Mowrer analyzes this case as follows:

"It is apparent . . . that throughout his life Mr. P. has attempted to escape through phantasy a role which is repugnant to him. In this drive he has not been successful on the whole for it has led him into difficulties with his family, his friends and his acquaintances. The discord with his wife is simply a part of the larger conflict pattern, since she is identified with the role from which he wishes to escape." [3]

Similar uses of fantasy as a means of escaping from an unpleasant situation might be illustrated by the common tendency of women to enjoy the vicarious attentions of handsome movie stars. Adolescent girls frequently identify themselves with actresses to the extent of imitating hairdress, manner of speech, and other typical mannerisms. It is possible that in the case of the older women, they are really introjecting themselves into the situation of the heroine. Because their husbands are no longer romantic, they seek to attain the pleasures of courtship through these vicarious experiences. Thus they relieve the unpleasant feelings of deprivation of the attentions which romanticism has taught them to expect.

Illness as an Escape.—The fact that children may develop aches and pains as devices for adjusting to unpleasant situations has already been mentioned. This habit may be resurrected when an unpleasant marital problem arises, or a chance illness may reveal the fact that illness is a means of escape. If either spouse feels neglected, dissatisfied, or unloved, illness may be developed as a device for demanding care, attention, and affection from the other (or perhaps as a means of inflicting equal discomfort upon him!). The following is another case from Mowrer's collection:

"Her first spell (of illness) happened at nine o'clock in the evening. I was in the front of the store. She started screaming saying she didn't feel good and that it choked her. I called a doctor. She said that was the first time she was nervous. Until then we got along. We may have done a little quarreling a few days before. I remember I tried to get her out of the house to take a walk. We weren't having relations. I told her that we must wait three months (after their child had been born), that it wasn't good for her health. She complained that she wanted satisfaction. When I stayed, I drew away. She would get so mad. She was worked up and felt disappointed. For two years then she had spells, more often at night before she went to sleep. I remember once she had a spell

[3] *Ibid.*, p. 143.

and I was at a meeting. A neighbor lady called me at home. At first I called doctors, then I got used to them." [4]

This case is that of a girl who had always been the "baby" of her family, receiving much attention, taking no responsibilities, and so on. After getting married she finds many responsibilities and tasks which she prefers to avoid. The case history cites other evasions she had tried. Finally she reinstates a childish tantrum or spell which results pleasantly, *i.e.*, she gets attention from her husband, does not have to feel that he is paying more attention to the children or something else. This purely psychological form of illness is used as a device to escape the unpleasant problems of marriage.

Drink and Other Substitute Satisfactions.—In addition to the rather common and clearly defined reactions to marital conflict which we have listed, there are many forms of evasion which serve as substitute satisfactions of a temporary or a permanent nature. Drink and drugs are habits acquired by a certain number of people who desire to escape from their problems. In fact, most extreme alcoholics became so for psychological reasons, not from any physiological leaning to alcoholism. Drink is not usually a cause of marital problems; it is much more likely to result from them.

In the same way we could enumerate a number of other forms of substitute activities—bridge clubs, golf, music, and art—the married woman who goes in for a career, at least in part, to get away from an unsatisfactory marriage—the man who buries himself in his work, and so on. In all of these cases we find it possible to envision the process as one of active trial and error in an attempt to find a state of relative freedom from tension. This response persists until it is found a failure or until a change in the total situation deprives it of its character as an adequate substitute.

Problems of Parenthood

Marriage is not the only significant situation adults encounter which may bring drastic alterations in personality. Parenthood may be considered another important phase in the development of many individuals. In the preceding chapter we attempted to evaluate the effect of the parents on the child. There is also some effect of the child upon his parents.

Obligation of Parent to Child.—One of the obvious ways in which the child affects the parent is as the object of a certain obligation. Traditionally this obligation has been greatly emphasized, although more re-

[4] *Ibid.*, p. 99.

cently there seems to be a more healthy emphasis upon the affection rather than the obligation which is the child's right. It has been held that the duty of parents to their children would hold them together, hence that marriages should eventuate in children as quickly as possible (ignoring the effect of this situation on the child, of course). Today better psychology indicates that obligations and duties may be either a cohesive or a disruptive force, and that under certain circumstances too many obligations (if felt as such) may break up a marriage rather than keep it together. From the numerous examples already cited, it should be clear that to any stimulus a human being may react by approach or withdrawal. In the case of an obligation, the response may be to assume it or to evade it. Particularly if, as a child, the individual has never learned to accept responsibility, the appearance of a child of his own may simply be a stimulus to flight or desertion.

Dominance Relationships.—The parent may react to the child not as an obligation, but as a smaller, weaker individual who may be dominated and employed as a source of ego-expansion for the parent. It is common to have adolescents report that their parents never praised them at home, but boasted of the child's accomplishments when out among strangers. Thus it is true here, as in the case of husband and wife, that the most important satisfaction to be obtained may sometimes be that of domination over somebody else. This may also explain the great interest of young children in babies. The young child is subservient to practically his entire social milieu. The baby is the only smaller, weaker individual present, and so may serve as a sort of consolation to his feeling of self-importance.

This dominance aspect is still further emphasized by the way in which the parents immediately begin to shape the child in their own respective image and to project upon it thwarted ambitions, unrealized hopes and unsatisfied desires. In this respect, too, the child may serve as a sublimation or substitute outlet for the parent. Many a father has consoled himself for his failure to "rise in the world" with the promise that his son shall accomplish this feat. Untold snobbishness and no inconsiderable amount of unhappiness has been due to the attitude, suggested by the parent, that the child is superior to his class, that he is not of common stuff, and so on. This is, of course, but a verbalization of the same daydreams which were held by the parent.

Thus it is true, when we consider the dominance relations within the family, that children often do make for more complete self-expression of the parents. But many times this proves to be at the expense of the children! Our economic and social structure, with its criteria of success

for the few and failure for the many, dooms millions of adults to feelings of inferiority. But our schools, our newspapers and our literature encourage us to suggest the same unattainable goals to our children, and to substitute for our own thwarted impulses the fantasy of success through our children. This is not to say, however, that such a process is desirable. It would be more intelligent for the parent to set the child a goal which is more attainable and less likely to doom him, too, to a feeling of inadequacy and incompetence.

Affection Relationships.—While psychology has discarded the doctrine of an instinctive love of the parent for the child, it is still true that the affection relationship here plays a definite role in the adult personality. As we grow up, we feel affection for our parents and for others who care for us. On reaching maturity, we cut the ties that bind us to home and parents, establishing a home of our own. But this habit of feeling affection for a number of persons in the intimate family circle usually does not change readily into a concentrated love for the mate; hence the child may serve as a stimulus for such long-established habits as fondling and caressing, and so again we find that the presence of the child is likely to fit into the structure of the adult personality.

This role is peculiarly accentuated in situations where one of the parents feels unloved by the other. The result quite often is the greater concentration of affection upon the children. The latter, in such circumstances, serve as sublimations for the reactions which are inhibited with reference to their normal stimulus, the mate. This situation is likely to lead to overprotection, preventing the child from growing up, developing fixations, and so on.

Conversely, the parent may, because the child is associated with thoughts of the other parent, who is now an unpleasant stimulus, reject the child and act to him as to the other parent. The results of such treatment are equally unfortunate from the child's viewpoint. The child in such cases is simply a victim of chance, and serves no constructive role in the personalities of the adults involved.

Factors Determining Marital Success

It is a general rule that a harmonious marriage indicates a desirable adjustment of both personalities, and discord is usually associated with maladjustment of one or both. This is cause as well as effect. An unhappy marriage releases many unpleasant emotional reactions and contributes directly to the development of undesirable personal habits; and on the other hand, an unpleasant or depressing personality may easily cause conflicts in married life.

Childhood Sex Training and Marital Adjustment.—If we turn to a consideration of the specific factors in the individual which lead to marital discord, we find that childhood sex training is one of the most important. Volumes could be written about the marriages which have been wrecked by ignorance and prudishness, deliberately implanted through the efforts of well-meaning parents. The remarkable stupidity of a nation which sends children to school for ten or fifteen years to learn a profession and lets them learn absolutely nothing about marriage, which is far more important than any profession, is a mystery to the logical mind. When we consider that the very core of American social structure is the institution of marriage, it is more than amazing that children not only receive no positive training, but are actually filled with false notions about it.

To give only a single illustration of the harm which can be done by the authoritarian, dogmatic type of prudishness, we may quote the following from Dickinson and Beam (1931). This is a quotation from a married woman who later separated from her husband:

"I would not let anyone tell me anything (about sex). I knew I could find out when I was married. No, he never hurt me. I was horrified at him, of his coming to me. I never imagined such a thing. I thought it was an insult, like married prostitution. He pleaded with me. He tried to urge me to look at it differently. I was sure that I was right. No, I wouldn't talk with anyone. When he talked that way I thought it was to get me to give him pleasure." [5]

It is easy to see in this case the influence of childhood conditioning against sex and anything associated with it. The dogmatic refusal to become informed is characteristic of attitudes implanted early in life by emotional rather than logical means. Instead of having an understanding and cooperative attitude toward the marriage relationship, she has been educated to the view that marriage is but legalized prostitution—a pleasing outlook toward the marital state!

Marriage Reenacts Childhood Roles.—It has often been commented that boys seem to fall in love with girls who resemble their mothers, and that the girl is likely to show a preference for men who in one way or another resemble her father. Logically it is easy for us to understand that the predominantly pleasant conditionings which have been established in childhood to the appearance, behavior, likes, dislikes, and so on, of the cross-sex parent would set a frame of reference in terms of which the adolescent would seek a mate. To the girl, her father represents strength, wisdom, and the other characteristics of the father stereotype. He is the one man in connection with whom she has a large number of pleasurable

[5] Dickinson and Beam (1931), p. 408.

associations. The same is true for boys. Hamilton (1929) reports that, in his group of married couples, men were more apt to be happy if married to women who in appearance (and to a less degree, mentally) resembled their mothers; for the woman, mental similarity of her husband to her father was more important. The relatively greater significance of the physical appearance of women selected for marriage is an interesting commentary on the standards of picking mates which seem to be characteristic of American culture.

This reenactment of childhood roles is not only manifest in choice of mates, but also in distinctive forms of behavior after marriage. We have already commented on several of Mowrer's cases in which the desire to continue a privileged role in the family is manifest. Another interesting view of the same process is revealed in a case selected from Dickinson and Beam. The wife involved reported that her parents had quarreled a great deal (in her presence, of course) and finally had separated. Her own marriage was unhappy and her sexual adjustment in general was unsatisfactory. However, she did find that she was able to obtain sexual satisfaction if she had relations with her husband immediately after a quarrel. Here it appears that her childhood experiences have so determined her attitude toward marriage that only under conditions approximating those of her parents' marriage is she able to enjoy the sexual relationship.

A Statistical Study of Marital Happiness.—Recent studies seem to indicate that the degree of happiness experienced by married couples is in considerable degree a function of the personality traits possessed by husband and wife. We may illustrate this by a few selections from the data of Terman (1938). Terman and his associates, by means of anonymous questionnaires and ratings, studied approximately 1,250 married couples. Happiness was estimated from subjective ratings by husband and wife separately and also from answers to various questions regarding complaints and friction in the marriage. That this criterion is not perfect is indicated by a husband-wife correlation of only .50; if the instrument measured happiness of the marriage, independent of the personal feelings of each partner, the correlation should be higher.[6] For practical purposes, the index of happiness seems to be fairly satisfactory, especially when used only for group analysis.

The results are based chiefly on an examination of differences between 300 couples scoring quite high on the happiness index, and 150 couples

[6] This assumes that happiness of the marriage can be separated from the happiness of the individuals involved with regard to other aspects of life. One may be pardoned for doubting that such a separation can ever be achieved.

scoring rather low. The author finds that significant differences exist with regard to personality, personal history, and sexual factors. We shall summarize each of these briefly.

Personality Factors.—Unhappy subjects are characterized by such symptoms as being grouchy, irritable, critical of others, resentful of discipline, dominative in relation to members of the opposite sex; having periods of excitement; and alternating between elation and depression. Happy wives are kindly in their attitudes toward others, and are cooperative rather than competitive in approach to social situations. Happy husbands are characterized by cooperative attitudes, but also by initiative, responsibility, and self-confidence. In general, we may say that happiness and emotional stability are closely related; it is not always possible to say which is cause, which effect.

On certain items it appeared that similarity of husband and wife contributed to happiness; in other cases, curiously enough, similarity was higher in the unhappy group. Items on which similarity was *favorable* included being sensitive to praise and criticism, wanting someone to be around when you get bad news, taking the lead to enliven a dull party. Dissimilarity, however, was greater in the happy couples on such items as being easily discouraged when the opinions of others differ from your own, liking public speaking, and liking to write personal letters. Similarity in preferred recreations and in religious and political attitudes seemed generally important for happiness.

We might sum up this phase of Terman's work by saying (1) that emotionally unstable individuals are likely to be unhappily married, and (2) that agreement on certain basic relations to each other and to the social environment is necessary if conflicts are to be avoided.

Background Factors.—The four most important background items were parents happily married, happiness of respondent's childhood, absence of conflicts with mother, and childhood discipline which was neither lax nor excessively strict. Many items which were expected to be significant proved unimportant; *e.g.*, income, religious training, presence of children, and age differences between husband and wife. The significant items are those shown in the preceding chapter to be correlated with well-balanced personality development generally.

Sex Factors.—Many factors widely advertised as sources of marital discord proved to be insignificant. Technique in intercourse, frequency of intercourse, contraceptive methods used, pain experienced by wife at first intercourse, premarital sex activity, and wife's history of sex shock are, in Terman's data, unrelated to marital success. (It should not be inferred that they are never important in any specific marriage.)

The most important sexual factors which seemed directly related to happiness were husband-wife difference in felt strength of sex drive, and wife's orgasm adequacy. With regard to difference in sex need, it would

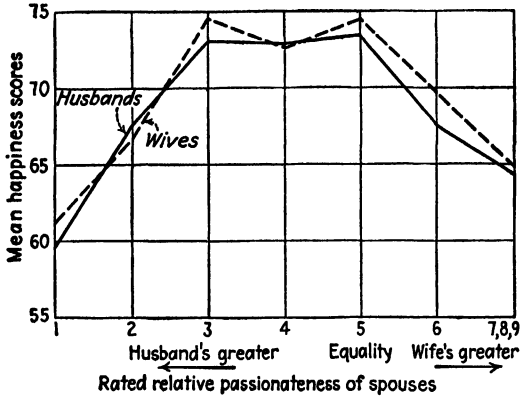


FIG. 42.—Sex drive and marital happiness. Relative equality of partners makes for highest happiness score. (*Terman*, 1938.)

seem apparent that a reasonable balance between the two would be conducive to maximum happiness; and this is confirmed by the findings. Figure 42 shows the relative happiness scores of couples according to differences in estimated strength of sex drive. A marked tendency for

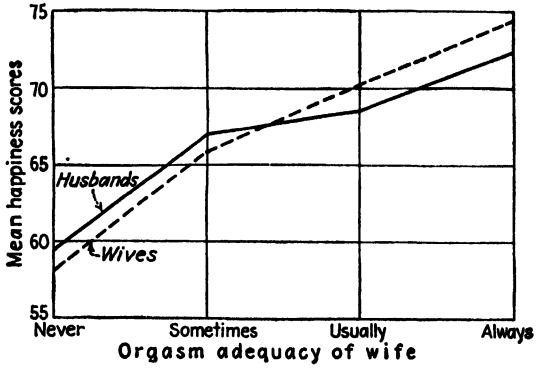


FIG. 43.—Marital happiness and wife's sexual reaction. Happiness of both husband and wife increases with wife's ability to achieve orgasm. (*Terman*, 1938.)

either spouse to be more passionate leads to unhappiness. The ability of the wife to achieve orgasm and complete sexual gratification is also reliably correlated with happiness of both partners. As shown in Fig. 43,

there is a steady increase in happiness score with increasing orgasm adequacy in the wife. Unfortunately, a detailed search reveals little information as to the causes of orgasm inadequacy. Terman is almost willing to consider it an inherited, constitutional characteristic.

If we consider the statistical data from studies of happy and unhappy marriages in relation to Mowrer's analysis of types of conflicts, we see general agreement. The personalities of the unhappily married in Terman's investigation are such that dominance and response conflicts would arise easily and seem very important. Differences in sex drive would readily set off sex conflicts. Terman's group did not vary enough in culture for this type of conflict to appear, but analogous conflicts over religious value, political attitude, and similar factors contribute to unhappiness.

Willoughby (1934) has noted that married women in general seem to be more emotional and less self-confident than younger, unmarried women. While we should be on very dubious ground in ascribing this difference to the frustrations of married life, the point deserves further investigation.

Fear in Relation to Marital Adjustment.—Terman's findings on the relative insignificance of various fears in the happiness of wives arouse some skepticism. It may be, for example, that he did not get completely honest reports from the women in his sample; or, even more likely, that his sample did not include enough fearful wives for statistical analysis to show their importance. Seriously maladjusted women, such as those seen by a psychiatrist or a gynecologist, may show a different picture.

The data of Dickinson and Beam (1931) indicate that wives who are maladjusted, by medical observation, do show an excess of fears. Table 19 summarizes Dickinson's observations on a large number of women who came to him for medical care. A comparison of Col. 2 (fears reported by adjusted wives) with Col. 6 (fears reported by unadjusted wives) shows a decided excess of some fears for the maladjusted group. It is probable that many unhappy marriages are due chiefly to the presence of fear, although the various other factors picked out by Terman are statistically more common. Certainly many psychiatrists would place even more emphasis than this statistical summary would indicate upon fear as a factor in marital discord.

It will be noted in Table 19 that about half the frigid group reported fears in connection with marriage. A striking case by Schimmenti (1935) illustrates the extent to which such fears may involve many aspects of the personality. The patient, a young married woman, had developed a decided agoraphobia (fear of open spaces; in effect, refusal to leave her house) and also a morbid fear of dying, although she was in good physical

TABLE 19.—INCIDENCE AND CAUSES OF FEARS RECORDED ACCORDING TO ADJUSTMENT IN MARRIAGE

(Modified from Dickinson and Beam, p. 327)

Group	Groups reporting fears [1]					
	Total	Adjusted	Dyspareunia	Frigid	Maladjusted	Total not adjusted
Group total	778	363	175	100	100	375
Total reporting fears	216	87	53	49	27	129
Source or cause of fears (according to patient)						
"Sex is low"	94	46	17	17	14	48
Pregnancy	60	25	19	9	7	35
Manual contact	22	5	12	5	...	17
Former association in coitus	16	...	...	16	...	16
General apprehension	14	9	5	...	...	5
Disease (venereal)	10	2	...	2	6	8

[1] No fears reported by 320 cases, including controls, 200; brides, 50; separated and divorced, 40; passionate, 30.

health. Her dreams included episodes in which she was sexually attacked and also dreams in which she was (symbolically) the sexual aggressor. She had become completely frigid in her sexual relations with her husband.

Psychiatric study revealed that the basic phenomenon was fear of giving way to her own sexual impulse. Her brother-in-law had attempted to seduce her, and she had been strongly tempted to yield. Because such behavior was contrary to her own moral standards (or Super-Ego demands), she resisted the temptation, but found it necessary to develop various defenses. These included the agoraphobia (by keeping herself within the house, she was less exposed to situations where she might give in), the fear of death (punishment for her "bad" thoughts), and frigidity (by repressing all awareness of her sexuality, she denied the possibility of moral failure). Cure was accomplished in stages. As she became aware of the relation of her phobias to the temptation episode, the phobias disappeared; and as psychotherapy improved her relations with her husband, the frigidity also cleared up. While this case does not indicate the fear reaction to be basic, it illustrates the pervasive impact of fear on the marital situation.

Other Factors.—Miscellaneous relationships between environment, health, etc., and marital harmony have been studied. The health problem has a very obvious relation to both personality and marriage. Dickinson and Beam found a definite coincidence of pelvic pathology and marital discord. Bernard (1935) reports that the health of the wife is particularly important in marriage. She also finds the use of contraceptives to be related to the wife's emotionality as measured by the Bernreuter scale (*cf.* the frequency of fears of pregnancy, Table 19). Research on these points has been considerably hampered by prudishness.[7]

Economic conditions have also been shown to have some connection with marital harmony, although this depends more on the money habits of wife and husband than it does on the absolute income status. Some families quarrel over money, even though well provided with it, while poorer families cooperate satisfactorily. Proper training in financial matters, particularly for girls, would undoubtedly eliminate this source of conflict in many cases. However, poverty places a strain on both partners which cannot easily be "laughed off," and it is a direct cause of many desertions, separations, and divorces. Further observations in this regard will be included in Chap. XXI.

Similarity of Mates

Selection.—It may be expected that some degree of similarity between mates would be found as a result of the process of selection. Particularly in the realm of attitudes, interests, and values, the conceptually oriented segments of the personality, we should expect this to occur. Religious-minded persons would be more likely to meet others of their kind, for example; and while an atheist might not have any particular prejudice against marrying a church member, many a church member would refuse to marry an atheist. Similarly, radicals frequently marry because they are thrown together in the course of their activities. This process of selection may be expected to bring about some similarities in the conceptual fields.

Burgess and Wallin (1944) have reported an analysis of relationships among 1,000 engaged couples which confirm the hypothesis that "like attracts like" as regards personality traits. The correlation coefficients for various of Mosier's factors derived from the neurotic inventory range from a correlation of .21 on autistic tendency and .18 on depression down to .11 for platform self-consciousness. Self-ratings also correlated mod-

[7] It will be remembered, for example, that an attempt to carry out such a study at the University of Missouri several years ago was instrumental in causing the head of the department of psychology to be "retired."

erately on such characteristics as jealousy and excitability. On all these measures, however, the degree of selective similarity is decidedly less than for religious affiliation (correlation of .54), family cultural background, and conceptions of marriage. It would appear that the social pressure to marry within one's sociocultural group is more important than the tendency to select persons of similar temperament or personality.

Increasing Similarity with Marriage.—Because each spouse serves to some extent as a model for the other, some increasing similarity with length of marriage could be predicted. The interaction effect might also suggest increasing resemblance; for example, a calm wife might have a quieting effect upon an excitable husband—or vice versa. We might expect that the rewards of a successful marriage would facilitate the learning of similar patterns, but that the discomfort and pain of a conflictful marriage would certainly not foster learning of patterns fitting those of the mate. Schooley (1936) states that degree of similarity on a neurotic-tendency scale increases with length of marriage; his data, however, are not such as to permit comparison of successful and unsuccessful matings.

Newcomb and Svehla (1937) compared attitude scores for a group of young husbands and wives and for fathers and mothers of college students (obviously married a much longer time). The results are inconsistent. On attitude toward the church, the older group was more alike; but on attitudes toward war and communism, the younger couples showed greater resemblance.

None of these studies extend over a considerable period of time with the same couples. Thus it is impossible to separate the effect of selective mating from that of learning. Eventually, it should be possible to demonstrate differential changes with length of marriage and with relative happiness of the marital partners.

Congruence Rather than Consistency.—The correlation coefficient may be the wrong statistical tool for studying this problem of marital resemblance. Perhaps in some cases there is a mutual adaptation process, learning to fit together into a harmonious relationship, but in a manner which does not produce similar traits. Some of the findings of the Terman study, for example, on specific questions indicated that happiness was facilitated by a difference in response. If one person liked to plan things independently, it was better that the mate should not prefer this approach. On certain dominance items it is better for one mate to take the initiative, the other to follow. If each attempts to dominate, conflict will result (*cf.* Mowrer's cases, pages 372*ff.*).

The kind of learning which takes place in intimate personal relation-

ships such as marriage may follow varying paths. It may involve the establishment of what Allport and Vernon call *congruence* rather than *consistency* (see Chap. XII). The traits of husband and wife may be supplementary rather than identical. If she expects him to lead and he expects her to follow, similarity is low but congruence is high. It is plausible to suppose that studies which could get at such subtle relationships would reveal temperamental harmony much higher than is suggested by a purely statistical approach.

Summary

Modification of personality does not stop with maturity. The family situation reactivates childhood expectancies with regard to appropriate behavior, based generally upon observation of parents. When two individuals marry, conflict will probably result if they have markedly different conceptions of appropriate marital behavior. Not all these conflicts relate to sex; in many cases, dominance and other personal considerations seem more important than differences regarding sex.

Studies of both engaged and married couples show that "like attracts like." Correlations are higher with respect to intellectual, interest, and attitude scores than on measures of temperament. While theory would suggest that length of marriage and happiness of marriage would increase resemblance, the data do not support this prediction. An explanation may be that, on certain personality traits, mates may develop congruent patterns which are dissimilar but which fit together into a successful working partnership.

Suggestions for Reading

A popularized account of Hamilton's *Research in Marriage* has been published by Hamilton and McGowan under the title, *What is Wrong with Marriage?* Dickinson and Beam give an array of interesting data relating to unsuccessful marriages in the book, *A Thousand Marriages*. Terman's *Psychological Factors in Marital Happiness* reports many valuable data which could not be included here. Mowrer's *Personality Adjustment and Domestic Discord* is an excellent book, full of clearly described cases

CHAPTER XX

THE SCHOOL SYSTEM

A significant part of the American child's life is spent in school. In most states he is required by law to spend several months each year, between the ages of six and sixteen, in an approved educational institution. Here he continues the process of liking and disliking, conforming and rebelling, acquiring a conception of the world and of himself, which has gone on in the family.

Obviously much of the child's personality is already shaped by the time he is six. Many of his reactions to the school situation will simply be transfers from family learning, as he perceives equivalent stimuli to be present. Hostility to parents, whether overt or latent, may appear as rebelliousness toward the teacher. Insecurity based on rejection may be manifest as aggressiveness, an excessive and insatiable demand for affection, or suspiciousness. Sibling rivalry is likely to take the form of competition with classmates.

No social situation, of course, ever completely duplicates another. While the teacher may be perceived as a parent substitute, she is not the parent, and differences in her behavior are significant for the child's development. Perhaps even more important is the fact that the child is now faced by certain institutional rules and requirements which are new and frustrating. Further, the school poses certain tasks, rewards, and punishments, to which the child must adapt according to his ability and motivation. The school, therefore, poses new problems to be solved, new taboos to be accepted into the Super-Ego, and new models for imitation and identification, all of which contribute their share to the molding of personality.

Recognition of this aspect of the schools as personality agencies has, unfortunately, been formal rather than functional. We have educated our children in business and professional methods and in skilled trades; many nations have educated their children to glorify military heroes and accept war gladly; and some cultures stress the acquisition of fine manners and conformity to established ritual. It is doubtful, however, if any public school system has ever embraced the aim of personality development

as its major purpose. An analysis of the reasons for this condition would take us too far afield. We can only note and deplore its existence.

It is possible to consider the implications of the school system for personality under three general headings: the institutional form and its impact upon the child, interpersonal relations of child and teacher, and personality in relation to specific educational performances. While these distinctions are not clean cut, each will serve to highlight certain aspects of the problem which seem to be important.

The Institutional Pattern

The public schools[1] are generally organized on an authoritarian pattern. Control is vested in an elective or appointive board, often composed of individuals who have no knowledge of modern educational procedures and are interested in education for reasons which have little to do with the welfare of children. A superintendent, or principal, has authority over the teachers, in a manner analogous to that of an employer and his employees. The course of study, books, and even scheduling are prescribed; many administrators pride themselves on the fact that they can look at a schedule and say, "Right now Miss Smith's class is working at the top of page 173 in this textbook."

Classroom procedures are generally autocratic, partly because of this arbitrary control from above, partly because teachers get some substitute gratification for their own egos by passing the dictatorial process on to the pupils. The effect of an autocratic school system, like the authoritarian family structure, is generally harmful to the children. It tends to create unnecessary aggressiveness and to prevent the development of independent habits of thinking. It may train young people to go into industrial jobs run on autocratic lines, but it is no preparation for citizenship in a political democracy.

Experiments on Social Climates.—As a device for illuminating this generalization regarding the nature and effect of school organization, the experiments of Lewin, Lippitt, and White (1939) will be valuable. These authors studied the behavior of boys in small social clubs when the group leader deliberately set up a dictatorial, democratic, or laissez-faire social atmosphere. A summary of the procedures used to define the three social climates is given in Table 20.

[1] Many of these comments would apply equally well to our private schools, which are not so bold in exploring new educational methods as they should be. In some cases they differ from typical public schools only in that all the children come from select social circles.

TABLE 20.—PATTERNS OF AUTOCRACY, DEMOCRACY, AND LAISSEZ FAIRE
(Lewin, Lippitt, and White, 1939)

Authoritarian	Democratic	Laissez faire
All determination of policy was by the leader.	All policies were a matter of group discussion and decision, encouraged and assisted by leader.	Complete freedom existed for group or individual decision, without any leader participation.
Techniques and activity steps were dictated by the authority, one at a time, so that future steps were always uncertain to a large degree.	Activity perspective was gained during first discussion period. General steps to group goal were sketched, and, where technical advice was needed, the leader suggested two or three alternative procedures from which choice could be made.	Various materials were supplied by the leader, who made it clear that he would supply information when asked. He took no other part in work discussions.
The leader usually dictated the particular work task and work companions of each member.	The members were free to work with whomever they chose, and the division of tasks was left up to the group.	There was complete nonparticipation by leader.
The dominator was "personal" in his praise and criticism of the work of each member, but remained aloof from active group participation, except when demonstrating. He was friendly or impersonal rather than openly hostile.	The leader was "objective" or "fact-minded" in his praise and criticism, and tried to be a regular group member in spirit without doing too much of the work.	Very infrequent comments were made on member activities unless questioned, and there was no attempt to participate or interfere with the course of events.

It will be clear at a glance that the correct analogue of a typical classroom situation is the authoritarian or autocratic group. Policy, in its broad forms, is dictated by the school board or by state law. Even within the limits so prescribed, the teacher is very unlikely to give students any chance to vote or to voice a preference as to procedure. Assignments are customarily given piecemeal, with little over-all perspective, and are subject to arbitrary modification at the whim of the teacher. Rules are so set that children cannot cooperate, must carry out a particular routine set by the teacher, and have no chance for self-expression or group identification. The rules usually prescribe that a certain number shall be ad-

judged as failing, no matter how good their performance or effort. Criticism is likely to be quite personal, and the teacher very rarely accepts a status on a level with the pupils. The points of similarity between school procedure and the democratic pattern as experimentally defined are virtually nonexistent.

Lewin and his associates found that the autocratic atmosphere tended to increase aggression and hostility; verbal comments and overt acts were more aggressive, either within the club or as soon as the club adjourned. Most of this hostility was directed upon club members, two boys being forced to drop out as they became "scapegoats" in turn. Although the same boys (and the same leaders) participated in democratic groups, no such incidents occurred in the democratic atmosphere. The democratic setup led to constructive, thoughtful, cooperative behavior. Generally the quality of work done seemed higher in the democratic group.

Dominative Techniques in Teaching.—As we have noted above, the typical classroom resembles the autocratic atmosphere devised by Lewin. There has been an attempt, under the general label of "progressive education," to get away from the teacher-dominated, curriculum-centered pattern of teaching, to a child-centered approach. The studies of actual educational situations most closely related to Lewin's work stem from this kind of thinking about the school and its functions.

Anderson (1939, 1945) has published a number of studies of teaching procedure under the heading of *dominative* and *integrative* behavior. The concept of dominative behavior, as he employs it, is closely related to Lewin's autocratic atmosphere; integration, to Lewin's democracy.[2] Examples of dominative acts by teachers are expressed in such instructions as these: "You will have to do it this way"; "Sit over here"; "You can't do that now." Criticism, threats, orders, and lectures come in this group. Integrative behavior, on the other hand, is flexible and child-centered. "Who would like to do this?" "What shall we do now?" Attempts by the teacher to help the child understand his problem, but without giving him the correct answer, come in this group. The integrative response seeks to understand the child's purposes and adapt the school activity to them, rather than forcing the child to accept the activity as stereotyped.

As could be predicted by any student of our educational system, the pro-

[2] Anderson has no analogue for Lewin's laissez-faire atmosphere. This is so completely lacking in organization as to be very unsatisfying even to the children. Lewin's group liked the democratic setup best of the three. It may be that some of the failures in progressive experimental schools arise from establishing not the democratic, but the laissez-faire, social climate.

portion of dominative to integrative contacts with children is high for virtually every teacher studied. It would appear that a psychologically "good" teacher would be one whose dominative acts were only twice as frequent as her integrative approaches.[3]

It has been demonstrated in studies of pairs of children [Anderson (1937)] that domination by one child incites domination (resistance, counteraggression) by the other. It is safe to assert that many children react in the same way to teacher domination. It is also obvious that dominative techniques prevent the child from developing self-reliance, independent thought, and cooperative attitudes.

Most young children fit more or less normally into this scheme of things because they come from homes which, on the average, are also authoritarian. However, the child who ventures to disagree with the teacher is speedily told his place. Woodworth (1935) quotes an incident from the life of Gene Stratton-Porter, who "came early into conflict with the teacher, who had written on the blackboard the sentence, 'Little birds in their nests agree,' and was pointing out the good example set by the birds, when Gene, from her intimate knowledge of bird households, interrupted: 'Oh, but they *don't* agree! They fight like anything. They pull feathers and peck at each other's eyes till they are all bloody.' She got the punishment to be expected. . . ."

Another incident is reported by a college student. "When I was in Mr. A's history class, I offered a suggestion about something—the American Revolution, I think. He said that it was very good, and asked where I got it. When I said it was my own opinion, he became quite indignant, and said that high school students were not allowed to have opinions of their own."

Superiority of Democratic Approach.—In America it should not be necessary to argue that the democratic approach to education is superior to the dictatorial method. Unfortunately, attempts to modify rigid curricular requirements in favor of a child-centered approach often encounter belligerent opposition, and some other valuable experiments have been stopped entirely.

Mowrer (1939a) has described an experiment in the democratic management of a group of delinquent or problem children. When these children were shifted from autocratic to democratic control, with a great deal of self-government, the number of disciplinary problems decreased, children learned to cooperate and live in a civilized manner together, and emotional adjustments improved. Nevertheless, the plan ultimately had

[3] While the evidence is indirect, it also appears that teachers using fewer dominative methods are more effective; *e.g.*, Brookover (1941).

to be abandoned because of public opposition. The same thing has happened to many successful experiments in prison and reform-school management.

The work of Lewin, Anderson, Mowrer, and others who have studied this problem seems unanimous in indicating the democratic approach to be most successful. It permits maximum personality development for each child, prepares him for group living, prepares him to study questions and make his own decisions, and gives superior training in emotional self-control.

The typical school organization at present tends to create in children an attitude of yielding to authority, letting others do the planning, avoiding decisions. It unquestionably has a considerable responsibility for the number of infantile personalities that are met on every hand in adult life.

The Requirement of Failure.—The experience of failure is bound to be painful, particularly when it is interpreted by parents and teachers as something of which one should be ashamed. Repeated painful contacts with any situation will cause fear or hatred of that situation. Yet we organize our schools in such a way that certain children are doomed to failure each year. Teachers rarely seem to perceive the irony of encouraging every child to strive for high marks, then giving grades on a distribution basis so that a fixed percentage is certain to fail. Even if a distribution curve is not employed, the setting of arbitrary subject-matter requirements dooms many to failure, since they simply are not endowed with the mental abilities essential to this kind of performance.

Sandin (1944) studied a group of 139 slow-progress children and 277 regular-progress children from grades 1 to 8. He found that those who failed more than once were uniformly rated by both teachers and classmates as having less desirable personalities. Boys in this group received significantly more ratings as unfriendly, cruel, and bullying; they were also characterized as unhappy and grouchy, quarrelsome and disagreeable, rude and impolite, inconsiderate, selfish, and boastful. The girls were rated as inattentive, daydreaming, and easily discouraged. Among the boys, clearly, we have an aggressive reaction to the unpleasantness and frustration of a school system not geared to their needs and abilities; the girls, on the other hand, attempt to withdraw. Neither reaction makes for a sound, well-adjusted personality.

The school can do justice to children of limited verbal capacity only by providing education of a type suited to their potentialities and providing rewards which will motivate them to continue trying. The number of juvenile delinquents whose antisocial behavior is basically traceable to an arbitrary school system has never been computed, but it must be large.

The institutional pattern of the arbitrary curriculum, which refuses to make allowance for individual differences in children, also works a hardship on the child of superior mental capacity. Held back to the pace of the average pupil, he readily becomes bored and often hostile to the school. Several studies which have plotted behavior problems against intelligence quotient have reported an excess as the IQ deviates in either direction from 100. Both the inferior and the superior suffer from the inflexible pattern. An interesting illustration of the kind of problem often manifested by the brighter child is given by Pressey and Robinson (1944):

"In another instance a bright, nervous, high-strung third-grade child refused point-blank to read aloud a simple story about animals that talked because she regarded it as silly. The order was repeated, the stubbornness increased, and the exasperated young teacher told the child she could not leave school until she had read the story aloud. At five o'clock the deadlock was broken by the principal, who required merely that the girl read a passage from any book, whereupon the youngster proudly pulled from her desk a copy of *David Copperfield* and read a passage with gusto. . . . The work was far below the level of her interests and ability; the episode was the climax of an accumulated exasperation at work which she considered beneath her. And she craved the satisfaction of showing what difficult material she could and ordinarily did read." [4]

Personalities of Teachers

The school, like the family, is in part an agent of the culture and in part an interaction of unique personalities. Two women may teach in the same system, following the same rules and covering the same subject matter, yet one may have a far more favorable effect on pupil personalities than the other.

Some concern has been voiced in recent years over the fact that the elementary schools are staffed almost exclusively by women. Kaplan [5] polled 223 psychologists and 225 educators on the desirability of having more men teaching at this level. He found that 83 per cent of the psychologists and 89 per cent of the educators favored such a development. Reasons given by these experts were centered around the general conception that the child needs contact with and an opportunity to imitate male, as well as female, patterns. This change, however, is most improbable as long as the salaries of elementary schoolteachers are considerably below the earnings of unskilled laborers. This brute economic fact also bars the

[4] Pressey and Robinson (1944), p. 188. Reprinted by permission of Harper & Brothers, publishers.

[5] The survey was made in 1946. As this book goes to press, the report has not been published, but these figures were provided by Mr. Louis Kaplan.

way to any substantial improvement in the quality of the feminine personnel.

Emotional Maladjustments of Teachers.—It has often been observed that college students planning to adopt teaching as a career seem to have less self-confidence, more fears, and greater instability than the general population of their college.[6] The trend here is, no doubt, based on several factors: (1) in teaching children one faces no adult competition, hence the ego can be protected against failure; (2) while financial rewards are low, there is less reason to fear economic insecurity; and (3) schoolteaching is a "respectable" occupation for those afraid to attempt more exciting but less reputable callings.

The negative selection which fills the profession with none too desirable personalities is supplemented by a set of circumstances which might well unnerve bolder hearts. In addition to the impoverished financial status, which leads to many frustrations and deprivations, the teacher is hemmed around with a multitude of archaic restrictions. Kimball Young (1930) has tabulated some of the bizarre rules imposed by school boards on young women (those for men are only slightly less severe). They include abstention from dancing, types of dress, being seen with men only between sunrise and sunset, and guaranteeing not to fall in love during the period of employment. The taboo on marriage, so common even today, presents the unhappy choice of a chronic sexual frustration or a resort to immorality. It is scarcely surprising that the common stereotype of a schoolteacher is an embittered spinster who revenges herself upon her pupils for the troubles society has loaded upon her.

The incidence of neurosis and insanity among the various professional groups has never been adequately charted. Mason (1931) suggests that teachers may contribute more than their share to mental institutions, and cities figures to show that they break down earlier than do other professional people. The commonest psychoses noted were paranoia, manic-depressive psychosis, and schizophrenia, all functional disorders which, psychiatrists believe, can be prevented by favorable living and working conditions. Among causal factors she places as very important the sex frustration arising from denial of normal social contacts, and the ban on marriage. Balancing interests in hobbies and other recreations had also been blocked. "In diversity of interests and possession of those traits that make for a well-rounded personality, this group of teachers was par-

[6] Phillips (1935), for example, tested student teachers and women already in the profession, on the Bernreuter and Bell inventories. Each group was significantly inferior as to emotional adjustment, on each test, when compared with the published norms for women in the same age range.

ticularly lacking," she writes. "School systems could be of assistance here by giving teachers more leisure for outside activities and freedom from too strenuous duties in the schoolroom, so that fatigue would not interfere with physical activities after school hours."

Attitudes toward Child Behavior.—Under these circumstances, it is small cause for wonder that Wickman (1928) and others have found teachers to resemble conservative parents rather than child psychologists in their views of behavior problems. Stern discipline, arbitrary controls, and strong moral taboos are approved. The most serious behavior problems are those which upset the teacher, not those which psychiatrists consider prognostic of insanity.

The significance of these various factors and the manner in which they are perceived by the teacher and the child involved may be clarified by citing a fairly detailed case history. Trow (1930) gives an interesting report of the school situation as seen by the girl, and follows with a brief comment by the teacher:

"Grace was an only child of parents well up in middle life, and was brought up without the companionship of other children until she was of school age. The family then moved to a nearby city to take advantage of the companionships and instructional opportunities offered by a well-organized school system. She looked forward to this new life with zest; and when the time arrived, as she says 'I rushed from home early that first morning so as not to miss any of the joys of school. Of course, school was the place where everybody had a good time both working and playing. And mother had taught me that teachers were very pleasant and kind to all the children. So this was my attitude the first day.'

"First grade. The first knock came after a week when the teacher told her she was 'like the three ducks' in the picture, tagging behind the rest of the barnyard creatures. 'It never occurred to me that I should hurry, for all I could think of was that Miss A had hurt me. The *why* didn't seem to matter at all. It wasn't because I wanted to displease, but because I misunderstood the situation.' She was scolded for her poor reading, and notes about it were sent home which her mother never received for she buried them in the snow, a device which the teacher suspected and thereafter dispatched them by neighbors' children. This resulted in 'considerable nagging . . . but there was no result as far as I was concerned.' Miss A's reluctance to make a star pattern for a dress trimming, causing Grace never to ask her to do anything again, completed the rather meagre list of grievances for the first year. 'Yet I still liked her very much. By this time I had begun to retire within myself because I had been squelched so much in my childish enthusiasms, and was now staying in the background so far as the teacher was concerned although there was always plenty of children to play with.'

"Miss A's report: Average mental ability; not her work that made her different; but her social side; shy and nervous, friendly and anxious to please. I remember well her smile. Unaccustomed to working or playing with other

children. Home life and previous residence responsible. But she tried to take her place among the others. Her year here helped her in adjusting. Seemed to enjoy school . . . I do not recall any instances of punishment.

"Second grade. Here Grace's improvement in reading made her decide to go back to Miss A to show her that she really could read. Miss A was busy and another teacher standing near had time to exclaim: 'Why, is Grace back in Miss A's room again?' This misunderstanding, together with Miss A's lack of enthusiasm over her improvement in reading, resulted in her going back to her room 'fighting the tears and feeling extremely unhappy. Teachers just weren't like mothers and fathers. . . . The second grade teacher was young and snippy, one of those who never recognized children on the street. This is the grade where they began cracking me on the fingers with a ruler. And from then on I got it; but I wouldn't cry, and there was no effect so far as minding was concerned. . . . I was certainly glad when school closed that year.'

"Third grade. 'Miss B had very poor health and consequently was annoyed by everyone. I recall that she always yelled at us instead of speaking in an ordinary tone. Once when I didn't have a pencil, she yelled out "Go home and get one." I cried every step of the way home and was frightened almost to death to go back. All the work I did was spelling, and that was because mother drilled me and hired me until I got E's right along in that subject.' She escaped repeating this grade only by the intervention of her mother, who promised to drill her on arithmetic during the summer, which she did.

"Fourth grade. 'There was not much to look forward to in school and much less when I went into this room and saw the teacher. All I could think of was an old witch. She wore her hair in a knot on top of her head, with locks hanging down all around, and her clothes looked as if they came out of the attic. . . . She was the worst one yet in disciplining, since she would have yanked you out of your seat before you realized it; this is the year I spent most of my time out in the hall or else sitting on the floor. I didn't care for her; the main idea was to get through. I didn't care for marks as long as I crawled through, which was just what I did.'

"Teacher's report: Grace was *very* poor in her work that year, if I remember rightly—a failure. She was very reticent, made very little response to either kindness or punishment. She was shy of me as she had no use for school work, which was quite beyond her mental grasp that year. She was at the adolescent period and was indifferent to anything pertaining to school life.

"Fifth grade. Here is an oasis in the desert. 'Miss C didn't believe in punishing, and her room was so quiet and restful that I felt like really working. . . . At the end of the year I cried because I had to go to another teacher.'

"Sixth grade. 'This was another of the yelling teachers. She used to get out of patience with me at the board—I suppose I was aggravating—and yell out: "I don't know what is going to happen to you next year!" Everything about the year was unpleasant and I was glad to be out of there.'

"Seventh grade. 'Here I found one of those large-built, domineering types of teachers. She was very exacting and never forgot the signals: "Turn, stand,

pass." This year I failed in language and arithmetic so had to remain in the same grade the following year.'

"Teacher's report: Hard for her to learn. Couldn't seem to concentrate. Nervous temperament. Associated with the better class of children. She was always very friendly with men, more sociable than the average girl. . . . I was surprised at Grace's attending junior college, but then I find that some of my poorer pupils have retained more than the brighter and have surprised me by accomplishing more than I ever dreamed they would.

"Eighth grade. 'Again I was unfavorably impressed by a large, mannish-appearing woman, Miss D. Just to look at her was enough to scare anyone, and to hear her deep, gruff voice would just about paralyze a boy or girl of this age.' A graduation present of a wrist watch Grace hid for a time from Miss D for fear of her sarcastic remarks, but was pleasantly surprised to hear her say it was nice, when she saw it; but this didn't alter her fearful attitude.

"Her mother writes: 'At this time Grace gave the impression that if she could sneak into school and out again without the teacher's seeing her she would be all right. Miss D, whom Grace disliked so much, told me that Grace had a lot of doll things in her desk, and she had a mind to take her out in the hall, turn up her clothes and spank her—which she did not do, fortunately, for it would have made the child that much worse.'

" 'On commencement night I received my diploma just as the others did, but I fancy with quite a different feeling, for I had just completed a hated job and it had not been done well either, which only made me feel more than ever that I was through with school and never wanted to see the inside of a school building again.' "[7]

Clearly a school system which takes in young, eager, enthusiastic children and turns out soured, indifferent, or rebellious adolescents is a failure. More, it is a menace to general personality adjustment; the treatment Grace received predisposed her to view the world as a hazardous and hostile place, in which safety could be purchased only at the price of complete self-effacement.

Teachers as Models.—Like the parent, the teacher is often a model for imitation and identification. School situations may imprint certain pictures in the child's mind which serve as standards for the judgment of proper behavior in the future. Even when he resents the teacher's tactics, he may adopt them himself on a later occasion.

Boynton, Dugger and Turner (1934) have shown that this effect is strong enough to be measured, even in a single school. A number of teachers and pupils in their classes filled out the Bernreuter Personal Inventory, which was scored for neurotic tendency. While there was not perfect agreement, there was a perceptible trend for teachers who were

[7] Trow (1930).

emotionally unstable to have students scoring toward that end of the scale. This is easy to understand. Even though the child is in school for only 5 or 6 hours a day, a teacher who is fretful, explosive, irritable, and nagging will set up many emotional reverberations. Pupils would need a very favorable home life indeed to balance such a school situation.

Toward Better Teaching.—The school system can never fit properly into a democratic society until it is reorganized on a democratic basis, with participation by pupils and teachers, as well as administrators and political executives. The teaching staff will not be of the proper caliber for molding future citizens until salaries are raised, arbitrary personal restrictions removed, and work loads lowered. In the meantime, various experiments have shown that better teaching is possible even under present conditions.

These experiments have centered around expanding the teacher's conception of her own personality and the factors determining pupil behavior.[8] Thus Ojemann and Wilkinson (1939) devised procedures by which the teacher studied problem pupils in the context of home environment, economic problems, and play situations. Inevitably the teacher became more understanding and tolerant; quite amazingly, she also became more effective in getting across academic material, and the personalities of her pupils showed significant improvement. Baruch (1945) concentrated on instilling an attitude of acceptance of the child's emotional problem (as opposed to moralistic, disciplinary, rejecting attitudes). At the beginning of the study, almost all teachers showed these negative attitudes. Almost two-thirds improved in self-understanding and in understanding of children's problems; it is believed that the handling of pupils was materially changed for the better.

French (1944) has given a detailed account of the techniques of an autocratic group leader and the devices by which he was retrained in democratic methods. While the specific instance is that of a scoutmaster, the applicability to schoolteachers is plain. It is possible to get better results with young people without resorting to dictatorial procedures.

These studies indicate that sound application of psychology to the

[8] Despite required courses in educational psychology, teachers often are deplorably insensitive to the emotional problems of their pupils. The child is perceived as another source of frustration, rather than as a human being trying to adapt to inner needs and external pressures. Even at the college level one sees little awareness of student personalities. Leatherman reports a case of a girl who attended a large university for 5 years and earned an M.A. degree before anyone became interested in the fact that she was suffering from delusions of persecution and was obviously psychotic.

training of teachers can have beneficial effects upon the personality of the pupil. Obviously, the elements in the school situation which are destructive of the teacher's morale and personal integrity must also be eliminated if this training is to be effective.

The Content of the Curriculum

Personality is molded more by rewards and punishments, by imitation of adults, or by rejecting the values of disliked adults than by the content of books read or ideas discussed. There is, nevertheless, reason to consider briefly the actual content of educational material. For example, it is the attitudes of adults which render difficult the needed reforms in school practice. Similarly, the stereotypes and prejudices of the average man contribute in no small measure to the occurrence of depressions and wars—social phenomena of the most drastic significance for the personalities of those affected. The facts and opinions which are being taught in our schools today have an important bearing on the course of history a few years hence.

While political agencies are unwilling to pay salaries adequate to attract superior personalities into the teaching field, they express great concern over the attitudes held by the prospective teacher. Just prior to the Second World War, there was an epidemic of legislation to require loyalty oaths and other superficial evidences of patriotism on the part of the teacher.[9]

Teachers have been forbidden at various times to mention communism, the theory of evolution, atheism, and other topics of which the political authorities disapprove. This, of course, is no novelty in our nation or our era. In Russia no teacher would venture to criticize communism, and some hundreds of years ago Galileo was imprisoned for the heresy of stating that the earth revolved around the sun.

Unconscious Censorship.—Aside from deliberate censorship of the materials and opinions presented in the classroom, there is a great deal of unconscious bias in the average textbook and the examples chosen by the average teacher. Somebody has commented that our arithmetic texts are concerned only with the arithmetic of profit and loss, although very few of the pupils ever will use such manipulations in their own practical affairs. As an alternative to percentage problems involving money, one might pre-

[9] In the Illinois legislature a representative with a sense of humor, during the debate on loyalty-oath legislation, proposed an amendment requiring that all teachers wear red-white-and-blue collars and cuffs daily. In the enthusiasm of the moment, the motion almost carried.

sent many more relevant problems from the child's home life. This point has received its best treatment from Freeman (1936):

"The present author has taken the trouble to analyze the ideational character of the problems in Thorndike's book (on arithmetic), and has found, in its less than 200 pages, no fewer than 643 problems which not only deal with, but accept and stress, the concepts of capitalism and of our familiar commercial practices. Those problems which simply deal with money without further implications . . . were not counted. These 643 consist only of those which in one obvious way or another place stress on commercial transactions in which monetary gain was ever the motive. . . . It requires no great clairvoyance to anticipate what would happen to a book which gave problems from a somewhat different social viewpoint. If, for example, it asked, 'If a family needs $15 a week for food, but receives $5 on the dole, what is the percentage of undernourishment?' Or this, 'If in a southern cottonmill, 1 out of every hundred has pellagra, how many new cases will appear when the mill expands by 1,000 employees?' "[10]

Such problems would do just as well for teaching the fundamental skills in arithmetic, but because they call attention to aspects of society which might cause the child to think, they are not likely to be used in the public schools.

Character Education and Other Attitudes.—Especially is it apparent in the field of character education that our school system does not merely teach facts. The school openly tries to implant certain ideals. One might say that the lack of practical success proves that ideals cannot be taught. We prefer to believe that it proves the lack of a correct psychological approach. However, we mention it to point out that the school does not, and should not, try to restrict itself to facts as such.

Attitudes are also an integral part of the stuff the child gets from school. Almost from the first day the author's child entered school, she began to come home singing songs glorifying the soldier. When she reaches courses in history she will learn that all great men in history have been military heroes, and if she is in some cities she will find all the boys compelled to take military drill. Perhaps she will be made an honorary colonel in the R.O.T.C.! When she studies economics, she will be taught the values and not the evils of private ownership of productive capital, and so on and on.

Under this kind of educational system we have produced the attitudes typical of present-day college students. We mentioned that Newcomb found that students favoring war opposed communism, and those favoring communism opposed war. This is congruent with the mode of teach-

[10] Freeman (1936), pp. 264-265. Reprinted by permission of Henry Holt and Company, Inc., publishers.

ing. The school presents war favorably, and opposes communism. The child who dissents on one might be expected to dissent on the other as well.[11]

Should Schools Propagandize?—The preceding paragraphs suggest a discussion of a common question, Should schools propagandize? But this question begs its answer, for the truth of the matter is that the schools already propagandize. However, they propagandize only for the continuance of things as they are; hence most people do not notice the propaganda. Doob (1935) gives an excellent discussion of the attempted distinction between education and propaganda.

Most educators believe in an abstract ideal of "impartiality," which is not adhered to in practice. On controversial issues (if they are even mentioned) only the socially approved side is discussed. If true impartiality is to be practiced, both sides should be presented as lucidly and unemotionally as possible.

Attitudes of Teachers.—Teachers inevitably transmit many of their attitudes to their pupils, just as they influence more generalized personality patterns. Kroll (1934) showed that, on certain social attitudes, high school boys resemble their teachers by greater amounts than could be expected by chance. Studies on propaganda have proved that even a few minutes of biased presentation on some new topic may have effects lasting for years. As our analysis of unconscious learning (Chap. VI) has shown, teachers can hardly avoid influencing their pupils, even when making a conscious effort to keep personal biases out of the classroom.

When psychologists and educators first became interested in such problems as teachers' attitudes, and began to make objective studies in the field, the evidence uncovered was rather discouraging. More recently there would seem to have been a trend toward liberal thinking among teachers. Harper (1937) compares the percentages of educators endorsing various opinions in 1922 and in 1934, and finds increasing liberalism manifest. Thus the statement, "Histories written for elementary or high school use should omit any facts likely to arouse in the minds of the students questions or doubt concerning the justice of our social order or government," was endorsed by 35 per cent of graduate educators in 1922 (is suppression of facts impartiality?) but only 8 per cent of the graduate educators tested in 1934 accepted it. Similarly, "During the dangers of impending war, our government should prevent any groups of citizens from opposing, through public discussions or through publications, the

[11] This is, of course, an oversimplification of the relationship. Other factors, such as the role of interrelated propaganda, would have to be taken into account if we attempted to give a thorough explanation of the correlation between these two attitudes.

government's most thorough preparation for the possible conflict," was accepted by 63 per cent of the 1922 group (although most of them agreed with the right of free speech as provided by the Constitution!) but by only 28 per cent of the 1934 group. As one more illustration we may cite "One should never allow his own experience and reason to lead him in ways that he knows are contrary to the teachings of the Bible," which was accepted by 53 per cent of 1922 cases, 29 per cent of 1934 cases.

These observations show very clearly, first, that in 1922 the ideal of teaching in factual impartiality received only lip service from many educators; and second, that even though there has been improvement, religious, social, political and economic conservatism still prevents school children from receiving unbiased presentations of contemporary problems.

Rationalizing the Economic System.—A certain amount of the teaching and reading done in our schools is devoted to rationalizing (*i.e.*, giving excuses for) the economic system. Contemporary economics courses are naturally the worst offenders in this respect. Instead of comparing the economic system in America with others, existing and possible, the introductory economics course is traditionally devoted to explaining why current practices are necessary.

The schools also function one-sidedly in other respects. Courses in industrial psychology teach how to get more work out of employees, but do not teach employees how to get more wages for their increased productivity. Courses in advertising tell the would-be businessman what techniques can be used to persuade people to buy products that they do not need and cannot afford. No course, however, is offered in sales resistance!

Academic philosophers not only rationalize the economic system; they prove that it represents a high level of ethics. They also offer ingenious ways of expanding it. Josey (1923) offers a remarkable set of arguments as to why the system of living off the labor of others is not only necessary but highly moral; then he proceeds to suggest that we nations of the Western world get together and shift our cost of living onto the primitive unindustrialized races!

"When we raise the question regarding our ability to transfer the burdens of our civilization from the backs of labor groups within our culture to the backs of labor groups without, we are concerned with the possibility of increasing the productivity of the non-European group sufficiently to meet our needs and yet maintain our preponderant power (economically and militarily).

"The changes brought about in our society by the industrial revolution are suggestive in this respect. *The great increase in wealth and its accumulation in the hands of a few should open our eyes to the possibility of living off the labor of others.* . . . Feelings of injustice arise when the laborer contrasts his position

with those who live on his labor. If the laborer and the leisure class were separated, feelings of this sort would not arise as frequently as they have in our own group." [12]

We may emphasize here, as we shall later, that the problems of personality cannot be dissociated from larger social problems. Personality is relative to a cultural frame of reference. But the cultural framework is also variable, and is influenced by personality factors. The Nazi state, with its doctrines of intolerance, exploitation, and persecution, is congruent with attitudes expounded by Josey. The influence of Nietzsche, Spengler, and other advocates of what we may call "Darwinism gone insane" is not to be underestimated in preparing the basic attitudes in German thinking whereby the structure of Nazism became possible.

The present volume unhesitatingly takes a stand that the schools have an obligation, extending in both directions: to the developing individual personality, and to the changing social structure, that education shall serve to develop attitudes leading in the direction of a social system which will offer opportunities for adequate personality development to all its members, not merely to a selected class. This position, on paper, is widely accepted by educators. For example, in the *Bulletin* of the Federal Bureau of Education, 1918, we find the assertion that the general aim of the school is to "develop in each individual the knowledge, interests, ideals, habits, and powers whereby he will find his place and use that place *to shape both himself and society* toward ever nobler ends." [13]

What Social Ends?—The bulletin referred to failed to define which social ends might be considered nobler. Most educators, while accepting the phrase quoted in principle, dodge the responsibility for putting it into practice. It is already clear from the earlier pages of this chapter that an individual interested in a child-centered education for better personality development can offer some proposals regarding these goals.

The evidence regarding the relation of the schools to the dominant economic-political pattern of this country has already been sketched. Economic controls perpetuate a totally unsatisfactory situation with regard to the quality of teaching personnel and the conditions under which they live if they attempt to stay in teaching. The political machinery censors the teacher, hems her about with demoralizing personal restrictions, and imposes the lockstep system which is so detrimental to personality development of the pupils. As Fletcher (1934) has pointed out in his

[12] Josey (1923), p. 207. Reprinted by permission of Charles Scribner's Sons, publishers.

[13] *Bulletin* of the Federal Bureau of Education, 1918, p. 9. The italics are mine.

excellent volume on psychological aspects of education, the school is a product of the culture in which it exists. There is, however, some slight chance that the schools might educate young children for a broader social view which, as they reach maturity, would improve the educational as well as the economic and political situations. Langford (1936), in an even more bitter vein, calls upon teachers to speak plainly on the factors which block a child-centered education:

"Ideas may move mountains. As an exclusive diet for children, they are insufficiently rich in the vitamins.

"To say this is not, of course, to make light of thinking as a guide to action. It is to draw attention to the contradiction between the needs of this child and the vested interests of the large taxpayers and bankers, who stand to lose if taxes are increased or interest rates reduced." [14]

Personality and Mental Efficiency

While personality is not closely related to intelligence, it should be clear that generalized traits, as well as specific adjustment mechanisms, have a close relation to the use made of intelligence. The parent who is excessively prudish, nervous, or fearful, driven by a need for dominance, or otherwise gripped by some strong emotion cannot be intelligent about child training. The wife who finds marriage terrifying and the husband who is compensating for business failure by dictatorial tactics at home cannot use their intelligence to accomplish a more satisfactory marital adjustment. Teachers who are afraid of criticism cannot take an aggressive stand in favor of educational reforms, even when they have a clear intellectual awareness of the need. Businessmen who want children to have good schooling may inconsistently paralyze the educational system by their concern over lower taxes.

The area in which the relation between personality and mental efficiency can best be studied is in academic work, because we have here both definite assignments and measures of accomplishment. The situation, furthermore, is somewhat simplified by the fact that most of the educational tasks are not of the highly controversial type mentioned in the preceding paragraph; thus, the student's performance is less influenced by this variable.

Specific Educational Disabilities.—Teachers often encounter a child who has normal or superior academic aptitude, but because of an emotional difficulty does poorly in one or more subjects. Thus Vorhaus (1946) analyzed the Rorschach patterns of 25 children with reading disability,

[14] Langford (1936), p. 107 (ftn.). By permission of The Macmillan Company, publishers.

and found evidence that the failure to read was a form of unconscious hostility to the environment. Externally the children were submissive; they were not "behavior problems" as most teachers and parents understand this term. Their resistance to domination by outside influence had simply become canalized in the form of refusal to learn to read. A plausible explanation of the basis for this behavior is found in the report by Missildine (1946), who examined another group of children with reading trouble. One-third of the children had overtly hostile mothers and another third had mothers who were markedly tense, criticizing, and coercive in their attitudes toward the child. One infers that the child has found (by chance) that his failure to read successfully elicits concern and anxiety from his mother;[15] he then repeats this behavior as a means of "getting even" for the arbitrary or hostile treatment that he receives.

Morgan (1924) cites an interesting case of a boy with a specific spelling defect. He could do ordinary fourth-grade spelling, but persistently missed certain very simple words. The word "girl," for example, was spelled *gurl, gerl, girle, gyrl,* etc. It appeared that he was carefully refusing to give the correct spelling. The origin of this difficulty was found to lie in an intense antagonism to girls and women, which in turn depended on unresolved sex conflicts related to his mother. After some elementary sex education, he began to give the correct spellings for these words and his difficulty soon disappeared completely. While such obvious cases of the relation of personality problems to educational disability are rare, one finds many illustrations in which the personality factor enters as an important determinant.

Personality Traits and Academic Success.—It has long been observed that intelligence scores alone do not predict school success. Some students work harder, persevere, concentrate more effectively and achieve relatively higher marks than their ability scores indicate. There are, apparently, personality factors involved in schoolwork. Various attempts have been made to correlate school grades and trait scores of various kinds. A summary of these[16] indicates that they have been uniformly unsuccessful. Grades are not directly determined by personality. On the other hand, evidence reported in that study shows that personality may have a marked effect upon the student's use of his ability. In Table 21 we summarize correlations between ability and achievement for different groups of college freshmen selected on the basis of Bernreuter personality test scores.

[15] The mothers were generally competitive about the child's performance relative to other children (*cf.* Chap. XVIII).

[16] *Cf.* Griffiths (1945).

TABLE 21.—ABILITY-ACHIEVEMENT CORRELATION IN EXTREME PERSONALITY GROUPS

Personality Traits	r
High score on neuroticism	.45
Low score on neuroticism	.60
High score on self-sufficiency	.59
Low score on self-sufficiency	.37
High score on dominance	.71
Low score on dominance	.44
Entire group	.51

Examination of this table indicates that persons possessing relatively desirable personality traits make better use of their intelligence. Low scores on Bernreuter's neurotic scale and high scores on his self-sufficiency and dominance scales are associated with well-adjusted personalities. In each instance the correlation of intelligence with grade-point average is higher for students at the preferred end of the scale. It seems probable that students who are poorly adjusted to themselves or to their social environment may vary widely in their approach to their studies. One may plunge into his work as an escape from an unpleasant world, whereas a second becomes absorbed in extracurricular activities, and a third simply broods about his troubles. The effective use of intelligence, thus, is highly variable for these students.

Both Munroe (1945) and Montalto (1946) indicate that prediction of academic performance can be improved if Rorschach records are studied in addition to the usual academic aptitude test scores. Emotional disturbance and various other factors detectable in the Rorschach performance seem to influence significantly the use made by the student of his mental ability.

A particularly interesting investigation, because it controls various conditions which are unknown in the usual study of academic performance, is that of Babcock (1940). In it 313 subjects, ranging from eighteen to thirty-six years of age—mental level from sixteen years to very superior —were given the Babcock-Levy examination, a measure of simple learning performance, substitution, and continuous mental work. It is a measure of efficiency, rather than ability as such. These subjects were also given the Bernreuter Personality Inventory.

Various comparisons were made within the results, all of them confirming the hypothesis that efficiency is a function of personality traits. In Table 22 are reproduced the average percentile scores on four personality traits for the top 10 per cent of the group, as compared with the bottom 10 per cent, in mental efficiency. It is apparent that the *less efficient* indi-

TABLE 22.—PERSONALITY SCORES OF PERSONS SHOWING HIGHEST AND LOWEST RELATIVE EFFICIENCY ON BABCOCK-LEVY EXAMINATION

(Modified from Babcock, 1940)

Bernreuter scale	Highest decile efficiency	Lowest decile efficiency	Chances in 100 of true difference
N (neuroticism).....	48.8	71.5	100
I (introversion).....	40.8	65.0	100
D (dominance).....	58.1	38.7	100
C (self-consciousness).....	50.6	76.3	100

viduals tend to score high on neuroticism, introversion, and self-consciousness; low on dominance. As noted elsewhere, these are the scores which characterize generally maladjusted personalities.

Babcock also presents the average mental-efficiency score for persons scoring at the top or bottom of each personality scale. As Table 23 shows,

TABLE 23.—RELATIVE EFFICIENCY RATING OF PERSONS MAKING EXTREME SCORES ON BERNREUTER PERSONALITY SCALES

(Modified from Babcock, 1940)

Bernreuter scale	Highest decile personality	Lowest decile personality	Chances in 100 of true difference
N (neuroticism).....	−1.01	0.19	100
I (introversion).....	−1.01	0.75	100
D (dominance).....	0.21	−0.51	97

persons who are high on neurotic tendency and introversion score below their proper level on the efficiency test, while those high on dominance score slightly above the expected point.[17] All these differences are significant statistically. Thus, even if we rule out such factors as the interaction of teacher and pupil, the nature of material studied, social distractions and other environmental variables, the mental efficiency of the individual is a function of personality, as well as of intelligence. Bab-

[17] Babcock's article also shows persons high on self-consciousness as making positive efficiency scores, but this contradicts both her data as shown in Table 22 and also the tenor of her article. We suspect a misprint on this figure.

cock seems to suggest that the neurotic personality is a result (in part) of low mental efficiency; it would seem equally plausible to hold that the various emotional conflicts, inconsistencies, and instabilities which we have found to be characteristic of these personalities render impossible an effective use of their mental talents.

Can the School Improve Personality?—Implicit in our analysis of the factors producing emotional difficulties and warped attitudes in school children is the assumption that a better school system could at least prevent some personality defects. But it is even more encouraging to suppose that proper educational procedure could have a positive, constructive value in developing good emotional habits, consistent frames of reference, and a stable Self-image.

Speech courses have often been recommended for persons who are lacking in self-confidence and poor in social adjustment. Most of the evidence as to the actual benefits is rather hazy, but Gilkinson (1941) reports statistically significant improvement in a group of college students taking general speech training.

The study of psychology, and particularly an introduction to the emotions, conflicts of motives, mechanisms of adjustment, and preferred types of behavior, has also been recommended as a constructive program. Here, again, the evidence of positive improvement has not been too convincing. Turney and Collins (1940) report rather encouraging results with a group of high school seniors who took the Bernreuter, Thurstone, and Maller scales at the beginning and at the end of a semester. In the interim they studied psychology in terms of case histories of adolescent problems and discussed the significance of various kinds of behavior. (The tests themselves were not available for study.) The end tests showed a significant improvement in average scores. One wonders if the students merely figured out the answers that they should give to get a preferred score; in answer to this criticism the authors present evidence of actual improvement in behavior outside the classroom. Hence it would seem that, if courses are taught at the level and with the material appropriate to the student group, real improvement in personality traits is possible. It seems worth while, none the less, to caution that the school is only one part of the adolescent's environment, and one course is only a small item in the curriculum. Benefits achieved here may be canceled by damages elsewhere.

Studies of propaganda show conclusively that, if the schools were so organized, they could readily influence attitudes favorable to more progressive social policies. As long as emotional prejudices and stereotypes block such a program in the schools, progress will be difficult. It would seem, therefore, that courses such as that outlined by Turney and Col-

lins, perhaps expanded along the lines proposed by Meltzer (1940), should be a first step. This might include policies directed to the reduction of frustrations and hostilities in school, as well as to the ventilation and elimination of tensions arising from other sources. Eventually such education should produce young people who are relatively free from emotional prejudices and inner conflicts, who have a clear perspective on themselves and also on their social environment. Such personalities would be able to apply intelligence fruitfully and efficiently to both personal and social problems.

Summary

As the social institution second in importance in the child's life after the home, the school must be expected to affect personality adjustment to some extent. In various respects the phenomena of school life are merely transfers from the family situation, but new problems of adjustment may create chronic emotional upsets and establish traits of an undesirable character. The autocratic nature of the system and the dominative pattern of the typical teacher converge to frustrate the child and to set up either rebellious or submissive attitudes.

One reason for the problems encountered by the child lies in the treatment accorded to teachers. Financial, personal, and social frustrations create emotional tensions in the average teacher which are likely to set off irritable, explosive, or dictatorial treatment of pupils.

The application of intelligence to these problems could readily produce solutions, but intelligent effort is blocked by emotional factors. Many educational disabilities are traceable to personality traits; by inference, it would appear that failures in the understanding of economic, political, and international affairs may be due to emotional blockages.

A few experiments indicate that the schools can operate as a constructive factor in relation to personality and social attitudes of pupils. Further progress in this area is urgently needed.

Suggestions for Reading

An excellent book on pupil personality problems is Morgan's *Psychology of the Unadjusted School Child.* Another good book in this field is Zachry's *Personality Adjustments of School Children.* McKinney's *Psychology of Personal Adjustment* describes a great variety of steps which can be taken within the academic environment to improve adolescent personalities. In the general field of the application of psychological concepts to the educational process, we recommend Fletcher's *Psychology in Education.* The effects of the institutional pattern on the teacher have not been discussed by many authors, but good treatments will be found in Young's *Social Psychology* (Chap. XIV) and Freeman's *Social Psychology* (Chap. XIII). A generally sound presentation of pupil-teacher relationships is found in Pressey and Robinson, *Psychology and the New Education.*

CHAPTER XXI

ECONOMIC FACTORS

Unless we wish to be exceedingly arbitrary, the individual personality can never be divorced from its larger group setting. One of the most trenchant criticisms of orthodox psychoanalytic theory has been that individual phenomena were considered apart from their social context. A few illustrations may serve to indicate the shortcomings of such an approach.

The aspirations, fears, and expectancies of each individual are largely determined by his culture. Within a given culture, a particular pattern of traits is likely to be idealized and held up to all children as a desirable orientation; in feudal times this was the knight of chivalry, in recent American history the successful businessman, in Soviet Russia the communist political leader. As the anthropologists have shown,[1] each of the primitive cultures studied is likely to impose certain standards upon its members, and the result is a recognizable personality difference in individuals. In certain groups the extraverted, aggressive, self-seeking pattern of our successful businessman would be identified as insanity and the individual subjected to social control. Similarly, personalities which we should consider definitely pathological are idealized in certain tribes.

This point is not raised as a preliminary to actual examination of the data on cultural differences. This material is too extensive for us to give it the treatment it merits. The general principle, however, has significance even within the framework of Western civilization, which has been the arbitrary frontier set up for purposes of this book.

Specifically, we propose to show that differences in economic status within American civilization are related to important differences in individual personalities. While it is not customary to consider Americans as divisible into economic classes, the evidence with regard to economic divisions, by some name, is too impressive to be ignored.

Economic Levels as Subcultures.—It will be helpful to think of separable economic levels within the American population as subdivisions of the American culture, *i.e.*, as subcultures. While the lines dividing the

[1] *E.g.*, Mead (1935, 1937), Benedict (1934), Kardiner (1939).

various levels from one another cannot be mathematically determined, everyday observation and a variety of statistics confirm their existence.

Brown (1936) has proposed that the nation be considered as a topological area (Fig. 44), divisible into three regions: the working class, middle class, and upper class, or—as he prefers it—the proletariat, petty bourgeoisie, and bourgeoisie. The characteristics of these three regions differ for the individuals who have them as social environments. The low-income, or working, group has less freedom of action, encounters more barriers, and has greater difficulty in rising in the structure, than have the other classses.[2] Brown predicts that the personalities of adults will reflect these differences. The available data confirm this prediction.

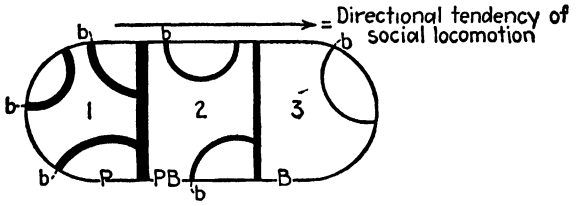


FIG. 44.—Barriers to freedom of personality development as a function of economic class status. *b* equals barrier or frustration, *P*, proletariat, *PB*, petty bourgeoisie, and *B* bourgeoisie. (*Brown*, 1936.)

The expectations of society with regard to people in these differing regions also differ. One does not expect the same behavior from a millionaire steel magnate as from his butler. A millworker who attempted to order people around as does the owner of the mill would be locked up as a mental case. There is reason to suspect that life in the middle-class atmosphere of many academic communities, with emphasis upon formality in personal relations and a prescribed ritual for seeking new friends, molds personalities which are more rigid and less permeable to outside stimuli (*cf.* Fig. 5, page 68) than the relatively free and easy patterns of working-class and wealthy groups. The routines by which one earns a living also shape the personality to some degree. The executive has ample opportunity to exercise initiative, to develop self-confidence, and to obtain a variety of gratifications. The average worker has exercise only in submission to authority, following orders without knowing why, and obtaining relatively meager rewards.

The impact of these economic factors is not limited to adults. Chil-

[2] Thus the worker can be fired by his employer, cannot take a Florida vacation in the winter, has virtually no chance of election to political office, cannot give his children many educational and social advantages, and so on.

dren are also affected both by the actual economic situation and by the traits developed in parents. The economic system, therefore, has an important role in the patterning of all personalities and is in certain instances of outstanding significance.

Industrial Routines

Within the capitalist economic system, and to some extent in all others, conformity to institutional requirements is literally a matter of life and death. Thus the powerful tensions of hunger and escape from pain are mobilized to force adaptation to the industrial routines. The worker must accept the dictates of his bosses in order to survive; the businessman must conform to certain social expectancies or be pushed down into the ranks of the workers, and so on. And it is manifestly impossible for any man to behave in accordance with a fixed pattern for half of his waking life and not be molded by this process. Erich Fromm claims that the economic system is actually primary to the whole personality:

> "Thus the mode of life, as it is determined for the individual by the peculiarity of an economic system, becomes the primary factor in determining his whole character structure, because the imperative need for self-preservation forces him to accept the conditions under which he has to live." [3]

Since we have already compiled substantial evidence as to the importance of the family constellation, the school system, and other influences, we may question Fromm's assertion of a *primary* importance of economics. Yet when we consider the pervasive effect of economic conditions upon the family and the school, we see that Fromm has many arguments in favor of his view.

The Executive Personality.—The individual who achieves executive status in our economic order does so by virtue of some intelligence, coupled with unusual aggressiveness and a certain amount of sheer ruthless disregard for others. It has often been remarked that modern business simply cannot be run according to Christian ethics; an attempt to "love thy neighbor as thyself" would be a short cut to bankruptcy. There have not been many studies of personality characteristics among top executives, but those which are available seem to agree on this point.

Houser (1927) has reported on an extensive survey of high-ranking industrialists, in which he questioned these men about their labor problems and drew conclusions about their desires for ego-expansion, power, philan-

[3] Fromm (1941), p. 18. Reprinted by permission of Farrar & Rinehart, Inc., publishers.

thropy, and so on. Houser shows no radical leanings, but he was impressed by the extremely egocentric pattern of the executive personality:

"The sheer love for power so typical of autocratic attitudes everywhere is undoubtedly one of the greatest forces producing individual and group frictions. There may be a general unwillingness to admit it. . . . But with a great many executives, this love of power is a blind but strong impulse. The degree of its expression is the measure of their most vital satisfaction. . . . Sometimes this motive was conscious; more often it was not." [4]

Such an overemphasis on the power impulse would be an advantage in gaining an executive position; it would also be strengthened by industrial practice. As Allport's principle of functional autonomy would indicate, such desires are strengthened by their successful release in action. The executive spends his days in making decisions and issuing commands. There is nothing in such a routine to induce meekness and humility. It is scarcely surprising that many labor conflicts arise over questions of sheer power.[5] As a psychologist who had considerable industrial experience once remarked, "When an industrialist shouts, 'No union is going to dictate to me!' he often means, 'I won't stop dictating to the workers!' "

Jones (1941) interviewed 18 top executives in the city of Akron, Ohio—most of them, naturally, from the rubber industry. As would be expected, he found an extremely conservative frame of reference to be characteristic of all of them; more surprising, he found a frank rejection of humanitarian values in a great many. The position taken was that the duty of the executive was to the company; if following that path meant incidental harm to the workers or small businessmen of the community, that was unfortunate but necessary. This frame of reference renders "good" such policies as moving the plant to get away from unions, cutting wages to increase profits, and generally disregarding the personalities of the workers in favor of efficient operation.

It is not surprising, therefore, that Hart [6] found the ideology of big businessmen to be highly authoritarian. Of 50 "upper bracket" business leaders, 76 per cent accepted the statement that children should be taught more respect for authority, and 52 per cent agreed that the masses of the people were not capable of deciding what was good for them. This is in accordance with established business practice, although somewhat in conflict with our approved political ideals.

[4] Houser (1927), p. 93. Reprinted by permission of Harvard University Press, publishers.

[5] *Cf.* Hartmann and Newcomb (1940).

[6] Hart, W. A. *Unlabelled fascist attitudes.* B. A. Thesis, Dartmouth College, 1942.

Impact on Workers.—It is inevitable that executives who have such personalities will impose many frustrations on the workers who must abide by executive policy or go hungry. Houser (1927) asserts that a major cause of worker unrest is the autocratic pattern which extends down even to the level of the foremen in most companies:

"These characteristics of intolerance and egotism frequently stamp the majority of foremen in a plant. They lack respect for those who have not progressed as they have. Their trampling upon other personalities, their hunger for self-expression and their keen joy in using their power constantly produce in workers a bitter resentment." [7]

This conclusion has been confirmed by many investigations of industrial morale, some of the most impressive having been conducted by Houser himself through his industrial consulting organization. Fear of the boss's displeasure still runs through the minds of many rank-and-file employees. The arbitrary pattern of the time clock, the badge number, and the assembly line is a constant assault on the worker's conception of his own ego and its paramount importance, its unique value. Chamberlain (1935) interviewed 100 union and 100 nonunion textile workers in a small New England town, and asked the question, "Do the mill owners treat the worker as a human being?" Of the nonunion group, 65 per cent answered "No"; among the unionists, the figure was 88 per cent.

Behavior of Workers.—The worker necessarily feels frustrated by this autocratic procedure. Like the boys in Lewin's autocratic social climate (*cf.* page 390), he experiences a tendency toward aggression. Except when jobs are plentiful, this aggression is denied expression in the factory, because of economic insecurity. He may then displace this hostility onto his wife or his children, or onto minority groups, such as Negroes and Jews.

Much aggression finds indirect manifestations on the job, however. Absenteeism and slowdowns are way of showing resentment. Noland (1944), in a good study of industrial absenteeism, showed that satisfaction with the job and attitude toward management were the major factors involved. As Table 24 shows, many of the significant correlations relate to the treatment of the worker by the foreman. Good attendance records are made by persons who feel that management treats them with courtesy and friendliness, while absenteeism is high among those who feel ignored and unappreciated.

Slowdowns and sabotage are not restricted to unionized plants. Restriction of output is a manifestation of hostility toward management and occurs just as often

[7] Houser (1927), p. 103. Reprinted by permission of Harvard University Press, publishers.

TABLE 24.—CORRELATIONS OF REPORTED ABSENTEEISM WITH EMPLOYEE ATTITUDES[1]

(Noland, 1944)

	Eta
Job satisfaction	.68
Foreman shows approval of good work	.67
Getting on with the foreman	.67
General attitude of management toward the workers in the plant	.68
Foreman's response to suggestions	.62

[1] Since the questionnaires were anonymous, the employee's report of absenteeism could not be checked against plant records; however, the distribution for the 383 replies corresponded closely with the obtained distribution for about 750 employees from clock cards. As the correlation ratio, eta, was employed in computations, no direction is shown for these relationships; inspection showed that absenteeism decreased as each of the listed items improved.

in the absence of a union. Mathewson (1931) relates an incident in a textile mill which illustrates this well. A 20 per cent wage cut had just been announced by management. The workers talked over what they considered an unjustifiable act and decided to reduce production proportionally. Actual production figures dropped 19.8 per cent!

To a not inconsiderable extent, therefore, the alleged shiftlessness, unreliability, and destructive behavior of the typical worker—as seen by the typical executive—must be interpreted as a reaction against industrial policy. They are not inherent qualities of the worker's personality; outside the factory, these men often show great energy, persistence, and creative effort within the limits of their training. There is, indeed, plentiful evidence that the basic desires of workers and executives remain much the same. One of the more startling lines of evidence comes from morale surveys of rank-and-file employees, foremen, and other minor executives, conducted to locate and eliminate weak spots in the personnel relations program. Houser (1938) has studied many thousands of workers in this manner. One of his more impressive tables is reproduced in part as Table 25.

One outstanding feature of the table is what does not appear in it. The five items shown are those which ranked near the top of the list in importance to worker morale, from a total of 33 questions. Conspicuous by its absence is the financial motive, so often stressed in economics. Of three questions concerning pay, only one ranked within the top 10, and this only for the sales group. This is a common, though not a universal, finding in morale surveys.

The table emphasizes the fact that executives, sales and nonsales employees are irritated by the same conditions and, to a considerable extent, want the same kinds of treatment: recognition, praise when deserved, a

TABLE 25.—PSYCHOLOGICAL FACTORS IN POOR MORALE AMONG EXECUTIVES AND EMPLOYEES

(Houser, 1938)

Item	Executives		Employees			
			Selling		Nonselling	
	Rank in significance [1]	Per cent dissatisfied	Rank in significance [1]	Per cent dissatisfied	Rank in significance [1]	Per cent dissatisfied
Knowing whether work is improving or not	1	39	1	13	1	36
Opportunity for fair treatment and square deal	2	24	5	27	3	33
Opportunity for offering suggestions in work	3	63	3	66	2	76
Conflicting orders	4	44	12	52	10	62
Freedom to seek advice in case of difficulties	5	43	6	54	5	61

[1] The "rank in significance" is based on 33 items in the survey, covering pay, working conditions, security, promotion policies, and so on. Rank was determined by the accuracy with which the item discriminated between persons of generally high morale and those of generally low morale. The percentage dissatisfied is simply the percentage of this group giving an answer indicating dissatisfaction on this item.

chance for self-expression, freedom from excessive and arbitrary restrictions. While there are, in general, fewer dissatisfied executives (indicating that their status gets them more personal consideration), the parallel in relative importance of items for the three groups is amazing.[8]

Executives not only have more power (and more ego expansion) than workers; they also have greater creative satisfactions. The success of suggestion systems is based on the fact that rank-and-file employees have brains and like to use them. In general, mass-production industry has taken away from the employee any sense of personal creativeness which the old craftsman had. Bakke (1933) quotes a factory worker as follows:

"But, Mr. D., you get some satisfaction out of your work. What can I

[8] For an interesting experiment which confirms the thesis that personal recognition is a major factor in job satisfaction (and in production), see Roethlisberger and Dickson (1941).

get out of mine—sticking a piece of metal into a machine all day? When you set up that chair, you can be proud of it, but I haven't anything to be proud of." [9]

Measured Personality Traits.—The similarity in goals and values of executives and employees should not lead to the conclusion that they will also be similar in surface traits. Not enough data are available to give a really satisfactory appraisal of the problem, but both direct observation by psychologists and such measurement studies as have been made confirm the prediction that executives would show more dominance and self-confidence, less neuroticism and inferiority feeling than corresponding groups of workers. Richardson and Hanawalt (1944), for example, report that 90 men holding supervisory or executive posts in industry were reliably different from 88 nonsupervisors on several Bernreuter scales: neuroticism, self-consciousness, and dominance. In each instance, the supervisors show better adjusted personalities.

It seems plausible to suggest that the greater confidence and better emotional balance of the executive can be traced in part to selection and in part to the industrial situation. Certainly the manner in which he is treated by others should build up his confidence and dominant behavior; and the lesser number of frustrations to which he is subject should reduce his emotional tensions, fears, and insecurities. These generalizations, however, ought to be objects of further research before they are wholly accepted.

Job Satisfaction and Neuroticism.—Many executives seem to believe that workers who complain about personnel policies are merely neurotics and crackpots. While this would be a soothing conclusion, since it would leave unquestioned the executive's policy of autocratic administration, the evidence does not confirm the theory. Kornhauser and Sharp (1932) found virtually no correlation between neuroticism (Thurstone scale) and job dissatisfaction. They did note that girls with high neurotic scores got more upset by arbitrary supervisory practices than did the more stable workers. McMurry (1932) found a correlation of −.37 between neuroticism and satisfaction in a group of women bank employees, but got zero correlations for other groups in the same bank. Schachter [10] found a correlation of only .15 between job dissatisfaction and feelings of personal insecurity (worries, social rejection, and so on).

In none of these instances do we find any justification for concluding

[9] Bakke (1933), p. 240. Reprinted by permission of James Nisbet and Company, publishers.

[10] Schachter, J. *A study of job satisfaction.* B.A. thesis, Dartmouth College, 1946. The subjects were 100 textile mill employees.

that dissatisfaction with the human-relations policy of management is merely a reflection of general personality maladjustment. It is possible, however, that continued exposure to these frustrating conditions, with no outlet for the resulting aggression, could lead to neurosis. Physicians dealing with industrial accident cases encounter a fair percentage of individuals who are not consciously malingering, but who show symptoms of hysteria which are fairly obviously related to an unpleasant work situation.

The Income Pyramid

The statistics on job satisfaction indicate that pay is not so important as has been alleged, either for the workers or for the managers of industry. This should not lead to the conclusion that financial status is of no significance. In many instances, income is treated as a *symbol* of power and of ego expansion; additionally, of course, income gives power to a limited extent. A wage difference of 2 cents an hour in a plant may be related to traditional social status of the jobs involved and may be defended with a vigor out of all proportion to the money itself.

Our culture pattern is one of success, and the emblem of success is income. Thus young people are encouraged to develop exaggerated levels of aspiration and are inevitably frustrated when these hopes are chilled by contact with reality.[11] The values implanted at home and at school are those of high income, power, and status. In terms of current possibilities, these values are not realistic. As Fry and Haggard (1936) have pointed out,

> "Under a system such as our own, with its heritage of pioneer struggles, a continual pressure is exerted for self-betterment, self-advancement through emulation. The results are a few striking successes—very few—and many failures. A few men succeed in raising themselves to high positions; many thousands strive pitifully and fail, and they are broken by their failures. Their discontent, their frustration, often appears as some form of psychopathic behavior." [12]

Recognition of this fact, however, hardly seems justification for the proposal, apparently approved by Fry and Haggard, that we reintroduce a kind of hereditary caste system:

[11] A survey of students at Dartmouth College in 1940 indicated that the average man hoped that, within 10 years after graduation, he would be earning $10,000 a year. At the same time, the class of 1930 (which had thus been out almost 10 years) reported an average income of $3,300. The difference of $6,700 is the measure of frustration indicated.

[12] Fry and Haggard (1936), p. 124. Reprinted by permission of Harper and Bros., publishers.

"For peace of mind, much is to be said in favor of the old European system of traditional class employment, so distasteful to American concepts of personal achievement. The butler, the gardener, the parlor maid, the seamstress, the clerk, each come of a long family line in these same occupations. Son like father, like grandfather; that is the way inheritance is transmitted; that is the way intelligence is passed. Under the traditional system the intelligence and a compatible goal were established simultaneously." [13]

Neither the assumption that intelligence is the chief cause of occupational failures, nor the statement that children closely resemble their parents in intelligence can be defended. As regards the first, it is apparent that the sheer factor of opportunity limits the number of successes under our present system; further, army data show that many men of high intelligence have not achieved high status and some individuals of high occupational standing are not very intelligent. Regarding the second point, we need only consider the correlations of IQ's for children and their parents to see that the close agreement implied by Fry and Haggard simply is not found in practice.

Possible constructive approaches to the problem might include social mechanisms by which prestige might be achieved by more people, reducing the extreme range of income differences at present characteristic of Western civilization, and reducing the pressure for achievement on children. Further implications of these ideas will be presented in the concluding chapter of this volume.

Income and Personality

It is perhaps surprising that so few research studies have attempted to relate economic status to differences in personality. A partial explanation may lie in the reluctance of some families to divulge their income level. Such data as are available confirm the suggestion that low-income status is correlated with excessive frustrations, insecurity, and other personality handicaps.

A Study of Nursery School Children.—The undesirable effects of economic inferiority show, even in the preschool child. Gesell and Lord (1927) compare ratings of personality for children in two nursery schools. School *A* was attended almost exclusively by children of professional parents. School *B* was attended by children of working mothers, who left the children to be cared for by day. Thus, while several variables are involved, the economic one is very important.

[13] *Ibid.*

The procedure was that of rating the children in each school on their behavior during an individual examination. The items on which each was rated, and the number of children receiving ratings of low, average, high, and superior from schools *A* and *B* are shown in Table 26.

TABLE 26.—DIFFERENCES IN BEHAVIOR OF TWO GROUPS OF CHILDREN OF DIVERGENT ECONOMIC STATUS

Items of behavior	School	Number rated			
		Low	Average	High	Superior
Spontaneity of speech.....	*A*	0	2	7	2
	B	4	1	3	3
Spontaneity of drawing....	*A*	0	8	2	1
	B	4	3	4	0
Play initiative.....	*A*	0	5	3	3
	B	3	5	3	0
Persistence.....	*A*	3	2	4	2
	B	7	2	2	0
Cooperativeness.....	*A*	0	2	6	3
	B	4	3	3	1
Poise.....	*A*	0	2	6	3
	B	4	3	0	4
Eating and sleeping habits.	*A*	2	8	1	0
	B	7	3	1	0
Self-care.....	*A*	1	8	2	0
	B	0	5	5	1
Total.....	*A*	6	37	31	14
	B	33	25	21	9

The data show a consistent advantage for the children from the superior economic level, which is especially noted with regard to spontaneity, initiative, and poise. The poorer group of children are distinctly above

the others only with reference to self-care, which has probably been developed perforce.[14]

Gesell and Lord offer no explanations of their data. Their comment is:

"It is idle to ask with regard to these traits to what extent are they hereditarily determined, to what extent are they conditioned? At least our data are not competent to give a quantitative or analytic answer to the question. The data do suggest, however, that the basic factors which will psychologically differentiate these twenty-two children in adult years are already in operation. The winnowing has begun."

Personality Test Scores of College Students.—The observations made by Gesell and Lord on young children may logically be supplemented by a study of college students in which objective personality tests took the place of ratings. In this study by the author, 128 college students, 57 boys and 71 girls, rated their economic status on a five-point scale, as they recalled it for four different periods in life. These results were compared with their scores on the Wisconsin Scale of Personality Traits. The results are shown in Table 27.

It is clear from this table that economic status is related to the personality traits as measured: emotional sensitivity, self-confidence, and seclusiveness. An inspection of the trends in the data shows an association of decreasing economic security (toward *E*) and increasing emotionality. This trend is perfect in "end of grade school" figures, and only one break in the sequence occurs in each of the other three sections of the table. On self-confidence and seclusiveness the association of economic well-being with desirable personality traits is also present, though less marked. It becomes apparent, then, that this study is consistent with that of Gesell and Lord. The inferior economic groups are definitely handicapped. In the development of desirable personality traits, the value of poverty and hardship as a strengthener has obviously been greatly overestimated. There is no compensation in the life of the poor for the freedom of children to develop desirable habits, a freedom which apparently economic security alone can give.

A Study of Adult Men.—Hoffeditz (1934), in her study of family resemblance, takes occasion to present a comparison of the scores of the fathers, classified by a rough estimate of economic level. This comparison is presented in Table 28.

[14] Similarly, Dr. L. E. Whisler has reported to us some unpublished data which indicate that, among college students, those of upper economic status are relatively inferior only in maturity of purpose, receiving relatively desirable scores on other traits measured.

TABLE 27.—ECONOMIC STATUS AND PERSONALITY

Reported economic status of family	No.	Emotionality	Self-esteem	Seclusiveness
At birth:				
A (highest)	10	47.5	60.9	55.5
B	22	52.4	54.1	54.7
C	60	50.4	48.5	50.2
D	20	58.2	40.3	67.1
E (lowest)	10	64.0	37.5	54.6
On entering grade school:				
A	12	50.6	51.9	41.8
B	25	46.2	56.4	49.6
C	64	55.5	48.7	56.5
D	17	57.5	43.0	60.1
E	7	60.6	42.9	69.7
At end of grade school:				
A	14	38.2	48.4	40.4
B	27	39.4	49.9	50.7
C	72	54.1	49.1	48.9
D	11	65.5	54.2	66.2
E	2	83.0	24.0	50.5
At end of high school:				
A	2	24.0	54.0	47.5
B	22	38.5	57.7	50.5
C	67	56.1	47.8	55.8
D	20	55.0	45.4	47.9
E	10	61.8	42.0	60.1

TABLE 28.—OCCUPATIONAL STATUS AND ADULT PERSONALITY

Economic group	No.	Neuroticism	Self-sufficiency	Dominance
Low	27	−33.8	3.2	39.8
Medium	40	−55.6	24.3	39.2
High	33	−72.3	31.6	62.8

The trait scales used are Bernreuter's measures of neuroticism (emotionality), self-sufficiency, and dominance. The results are in complete harmony with those previously given. There is a steady decrease in emotional sensitivity, and a general tendency toward more self-sufficiency and more dominance, in the groups of better economic levels.

If this study were viewed alone, it might be argued that those individuals attained poor economic adjustment because of personal difficulties. We believe the sequence of the three studies cited disproves this hypothesis. The economic handicap in childhood produces personality difficulties, which are perpetuated through adolescence and maturity, especially if the economic problem persists.

Causative Processes.—The question of the particular mechanism by which these results have been produced cannot be given a simple, straightforward answer. We may suggest at least four factors which are operating: (1) biological frustrations, (2) frustrations due to failure to meet social expectancy, (3) undesirable living conditions, and (4) family disorganization.

Biological Frustrations.—There is a limited amount of data (*cf.* Chap. XVIII) to support the view that inadequate feeding in infancy contributes to poor personality integration and the development of deviant trends. It is certain that, at any age, insufficient food and occasional or chronic hunger will have upsetting effects.[15] The sense of security is ultimately based upon organic sensations. Piling up unpleasant and painful experiences must inevitably disturb the child's feeling of security, and it will certainly affect his perception of the world around him. Similarly, cold and physical discomfort must be expected to have deleterious effects upon the individual's morale.

Frustrations Related to Social Expectancies.—It is probable that a greater proportion of the direct consequences of economic handicaps arise in relation to social standards, rather than biological requirements. The child who is ridiculed for shabby clothing, or who loses out on social contacts because he cannot spend money on a par with his friends, quickly shows the effects in his daily behavior. Adults who cannot compete on expensive clubs, teas, and similar manifestations of "conspicuous waste" may experience decided mental pain, even though biologically they are very comfortably provided for. Possession of toys, houses, automobiles, and expensive hobbies gives the individual an increased feeling of ade-

[15] There is, however, no consistent evidence at present to validate any claims with regard to the effect of qualitative hungers, such as vitamin deficiencies, upon personality; nor is there any reason to believe that handicapped personalities can be aided by commercial vitamin preparations.

quacy; his self-esteem goes up as his status in the eyes of his associates is elevated. The ability to meet the expectancies of the social group is thus an important factor in normal personality development.

Housing Conditions.—Kanner (1935) has pointed out another unfortunate aspect of the living conditions of poverty-stricken families:

"Due to crowded quarters, various members of the family share at night not only a room, but also the same bed. It is astonishing that not less than 22 per cent of our patients of over four years of age come from homes with unsatisfactory sleeping arrangements, in the sense that they occupy the same room or the same bed with the parent or sibling of the opposite sex. . . .

"The most outstanding results of such arrangements and of the causes and attitudes connected with them are general immaturity, protracted dependence, childishness and spoiled reactions. Masturbation is often a problem in these children because of the constant sexual stimulation which, in three of our cases, has given rise to incestuous practices." [16]

The problems of overcrowding are much more numerous than those listed here, of course. It is obvious that irritability, nervousness, and antisocial reactions are increased by living in too close proximity with others. Many families have been forced to "double up" and have stepped on each other's toes psychologically, as well as physically!

Improvement of housing conditions has a favorable effect on families, according to Chapin (1940). Families moving into housing projects were matched with others who remained in slum dwellings. After 1 year, it was found that the rehoused group had improved with regard to social participation and also with regard to care of possessions. While measured personality traits showed no significant improvement, a year may have been too short a time for such changes to become perceptible.

Delinquency in children is obviously related to economic status and particularly to housing. In the absence of adequate play space and facilities, the child readily falls into street gangs and antisocial recreations. Lacking toys and money for commercial amusements, he is readily tempted to steal. As Kanner notes, sexual delinquencies are also related to poor housing. Shaw (1929) has published extensive data on delinquency in Chicago, which indicate a high correlation with the economic level of the neighborhood. The work of Dunham (1940) indicates that personality breakdowns and mental disease are also related to housing and other neighborhood conditions.

Family Disorganization.—At various points in previous chapters we have stressed the importance of a pleasant family life as a background for

[16] Kanner (1935), p. 100. Courtesy of Charles C. Thomas, Inc., publisher, Springfield, Illinois.

good character and desirable personality traits. Low-income status interferes with good family integration and, consequently, exposes both children and adults to unpleasant experiences of an intimately personal kind. Hayward (1935) reports on studies in which several hundred children were asked a large number of questions regarding family harmony and peace. On this basis a "family disorganization score" was computed. Table 29 shows the average score for normal groups of high, medium, and low economic status, and for a delinquent group corresponding to the low group in economic level.

TABLE 29.—ECONOMIC STATUS AND FAMILY DISORGANIZATION

Economic status	Mean	S.D.	N.
I	23.8	13.6	21
II	32.6	18.1	55
III	45.0	21.0	22
Del. III	57.4	24.9	103

Critical ratios: I-II, 2.37; II-III, 2.43; I-III, 4.0; III-Del. III, 2.48.

This table shows a rapid increase in family disorganization as the economic status decreases. The delinquent group is characterized by considerably greater internal difficulty than the normal group of similar status, but the difference does not meet a statistical criterion for a "significant difference." The most probable explanation is that economic group III includes some families which can stand the shock of hardship without complete disintegration, whereas others cannot. Those families which break down to a greater extent produce more delinquents. However, in any case, a family which has a score of 40 or more on such a questionnaire as Hayward's is a decidedly unwholesome place for a child to live. The data suggest that one of the major causes is economic status. Thus, even though overt acts of delinquency may not occur in some families, personality difficulties and long-time problems undoubtedly develop.

This observation of Hayward's on family disruption is given interesting confirmation by Hamilton's findings on the relationship between financial status and marital happiness. It is reported (Hamilton and McGowan, 1929) that the wife of a man earning $5,000 or more yearly has 54 chances in 100 of being content with her marriage, whereas those whose husbands earn less than this amount have only 36 chances in 100 of attaining such

satisfaction. Since (at the time the data were collected) less than one family in ten had such an income, the importance for marital stability of such a finding is rather great.

Economic Status and Attitude.—Public-opinion polls and studies employing attitude scales are in agreement that economic status is an important determinant of opinion on a wide range of issues. It is only to be expected that those who hold privileged status under the existing political and economic institutions should favor continuing these institutions; it is plausible that those who suffer constant biological and ego frustrations under the present social order should be significantly more friendly to radical ideas. More surprising, actually, is the extent to which those who have been badly treated by current institutions favor their maintenance.

Among the topics on which sharp differences in attitude have been found associated with differences in income or some other measure of economic status,[17] we may list labor unions, government ownership of industry, and income taxation. The upper income groups consistently take conservative positions, and lower income groups take liberal or radical points of view, with respect to these issues. In fact, on studies which have used a variety of questions on economic, political, religious, and other topics, it has been shown that upper economic status is a determinant of general conservatism.

This is to be expected, because the existing institutions have been sources of reward for those groups in the upper strata of our society. Positive valences are associated with the business system, with our political forms, and with the existing balance of power. Groups agitating for social reforms are perceived as threats to a preferred status. Furthermore, the child of well-to-do parents has generally been reared under conditions of fair to excellent security, and so he transfers from his parents to society an expectation of good treatment—an attitude that "All's right with the world."

It might be supposed that the reverse statements would hold for adults and children who have suffered deprivation under the existing order: that they would perceive our economic and political institutions as sources of pain and frustration and would demand changes beneficial to themselves. While there is some tendency in this direction, the amount of conservatism among the lower economic groups—particularly domestic servants and white-collar office workers—is amazing.

[17] *Cf.* Kornhauser, in Hartmann and Newcomb (1940).

An explanation may be found in the fact that perception is distorted by desire and by established frames of reference. The individual who is at the bottom of the economic heap does not like to accept the situation, but he may obtain substitute satisfaction by ascribing to himself a higher social class status. Wallace, Williams, and Cantril (1944) report on a public-opinion survey in which people were asked about their income class and their social class. Among unskilled workers, for example, 55 per cent admitted that they belonged to the lower income class, but only 16 per cent accepted the label of lower social class. For all occupations at all levels there was a tendency to claim a higher social than economic standing. In part, this may be pure "wishful thinking"; in part, it may be a reflection of attitudes established early in life by parents and teachers who denied the existence of upper and lower classes in America.

Aggressive Attitudes.—There is a substantial amount of evidence favoring the view that aggressive social attitudes (intolerance, persecution of minority groups, a severe peace for the Axis nations, approval of war) are more widespread among the lower economic groups. The explanation most commonly offered for this is that the poorer groups, suffering more frustrations, developed greater aggressive tensions, which caused them to feel and to express greater hostility in the specified situations. Thus, Hovland and Sears (1940) found a high negative correlation between the value of the cotton crop and the number of Southern lynchings of Negroes; and in Germany the Nazi program of violence against Jews, radicals, and the anti-fascist nations gained rapidly in popularity after the economic collapse of 1928. The aggression generated by economic frustrations is presumed to be displaced onto available scapegoats.

Frenkel-Brunswik and Sanford (1945) have made a careful study of anti-Semitic attitudes among American college students. They report that, while overt anti-Semitism is likely to be based on real economic insecurity, what they consider to be a true basic anti-Semitism is based on emotional insecurity, infantilism, and lack of insight. In the light of what has been pointed out in preceding pages regarding the impact of economic conditions upon home life, it should be clear that these are not independent factors. Much emotional insecurity may be due to parental problems of an economic character.

The operation of the displacement process in aggressive social attitudes is also confirmed by Allport and Kramer (1946). Among members of minority groups who felt that they had been persecuted more than average, there was a definite tendency to be more hostile to other minorities! Thus victimized Jews disliked Negroes, and victimized Catholics disliked

Jews, more than their fellows who had not often been discriminated against.[18]

This seems to fit in with the generalization that personalities which have been subjected to excessive frustration tend to manifest aggressive social attitudes to an unusual degree. Inasmuch as economic conditions are, directly or indirectly, a source of numerous frustrations, the point seems especially significant here.

Competitive Attitudes.—It is difficult to distinguish sharply between aggressive and competitive attitudes. We have chosen to use the latter term to identify competition against individuals; the former, for hostile, competitive attitudes regarding groups of people. The two may be psychological equivalents, capable of mutual substitution.

Capitalistic culture fosters a competitive attitude in the child, the adolescent, the worker, the businessman, the executive. The social expectancy is that one tries to get ahead. Parents press their children to compete in school, in games, and in social affairs. Many psychologists, particularly those with a psychoanalytic bias, believe that the irrational ambition manifest by so many American adults goes back to the strict training and conditioning of children. Mowrer and Kluckhohn (1944) state that "A vicious circle is thus set up. Harshness in the training of infants lays the basis for obsessive ambition later, and this in turn makes for severely competitive behavior in later life. Such competitiveness not only pervades the economic and vocational spheres, but also instigates parents to vie with 'the neighbors' in seeing whose baby can be most precipitously trained in respect to weaning, cleanliness, sex-tabuing, and aggression control." [19]

It would seem logical that competitive attitudes would be stronger in the poorer than in the well-to-do groups. However, the marked growth of unions, trade associations, cartels, and monopolistic organizations of industry suggests that competitive attitudes are today being canalized into group action, where they take the form of aggressive attitudes. Workers are less ready to compete against each other for jobs, and industrialists are less willing to compete for markets. In certain restricted areas, such as the professional and white-collar groups, competitive attitudes are still strong; and it is often fairly easy, in such individuals, to

[18] In some instances, of course, the persecution had the opposite effect; the victimized individual rejected the whole dominant social organization and aligned himself with every minority which was an object of discrimination.

[19] Mowrer and Kluckhohn, in Hunt (1944), Chap. 3, p. 93. Reprinted by permission of The Ronald Press Company, publishers.

observe the effect of economic and social frustrations in intensifying these attitudes.

UNEMPLOYMENT

Economic Cycles and Personality.—There is something impersonal about a discussion of economic cycles which ignores the great personal suffering, the disorganization of family life, and the disintegration of personality which results from each period of depression. It is not amiss, however, to point out that, even though we have depressions every 14 years or less, this does not account for nearly all of the unemployment of American workers. In 1928, a boom year, figures estimated by various organizations give from 1½ to 3 millions unemployed. At the bottom of the great depression, the best figures give about 15 millions, or one in three of our employable population. Of these, many had been employed only a few months of the year in "prosperity." Hence unemployment was not a new problem in 1929, and apparently it is likely to continue with us.

We write at some length on this point because the effect of unemployment on the individual seems to be drastic. Few studies give quantitative data on these problems, but case studies reveal for individual persons the effect of economic collapse.

Demoralization.—Bakke has presented one of the most careful studies of unemployment in its effect upon personality. Living in London, he met and talked with unemployed English workers, day after day, keeping records of their behavior and attitudes. The following is a typical week-by-week description of demoralization from unemployment:

"I met 'A' one evening after we had been listening to a political speech on the street corner. He had just come out of work three days before. He was confident of getting another job soon. . . . 'There's plenty of jobs for a man with my experience. I've never been out more than a week or so before.'

"*Three weeks later.* 'I'm beginning to wonder how plentiful jobs are. It's a funny thing. It's never been like this before. It's most discouraging. You feel like you're no good, if you get what I mean.' . . .

"*Eight weeks.* I went down to 'A's' house to request that he keep a record of his week's activities for me. I went at nine o'clock in the evening. His mother informed me that he had not yet returned from looking for work. . . . I returned the next night at nine o'clock. He had just come in from a long tramp in search of work. 'I'm beginning to wonder what is wrong with me. I've tried every-way.' . . .

"*Eleven weeks.* . . . The confidence which I had noticed in my first conversation with him was completely gone. In its place there had come a dogged determination to find some kind of work. . . . 'There's one of two things, either I'm no good, or there is something wrong with business around here. Of course I

know that things are slack. But I've always said that a good man could get a job even in slack times. That's not so. And the man who says so is a liar. . . . I feel when I walk down the streets here that all my old mates are looking at me. . . . Even my family is beginning to think I'm not trying. . . .'

"*Seventeenth week.* 'A' didn't say much the last time I saw him. He was sullen and despondent. . . . *'It isn't the hard work of tramping about so much, although that is bad enough. It's the hopelessness of every step you take when you go in search of a job you know isn't there.'*" [20]

Notice the breakdown of old habits of thinking, and, by implication, of posture and facial expression, in this description. In the feeling of being watched by his old friends we have a suggestion of delusions. His complete loss of self-confidence is important. This is truly a picture of a likable personality demoralized by economic circumstance.

Zawadzki and Lazarsfeld (1935) report a study of various families in Poland, in which the autobiographical technique was employed. They describe four typical attitudes, as follows: unbroken, resigned, apathetic, distressed. They call attention to the "depressing feeling of humiliation, of being superfluous." An interesting effect is a loss of working-class unity. The intense competition for whatever jobs are available develops emotions of jealousy and suspicion. The anticipated swing to radical economic doctrines seems to have been prevented by a frantic attempt to hold onto what little means of preserving life were available through the local relief authorities.

Loss of Status.—The effects of unemployment operate most immediately through the medium of the social phenomenon we call status. The unemployed worker has no way of maintaining his prestige, his position in the group. Both Bakke and Zawadzki and Lazarsfeld suggest the development of a feeling of futility—a feeling that one no longer has a place in society, or even in the family.

This conclusion is amplified in an interesting way by Clague, Couper, and Bakke (1934) in their study of a whole group of men thrown out of work by the closing of factories in New England during the depression:

"Here is surely one of the most tragic results of unemployment. The men with the highest status as measured by their attainments on the job have the least success in maintaining their standard of living when the lay-off comes. Our ideas of reward for merit among workmen are premised on the idea that there are jobs in which that merit may exert itself and be rewarded (!) . . . We have assumed that there is a rough correlation between ability and the rewards of ability. Have we left out of account the fact that *the spells of unemployment*

[20] Bakke (1933), p. 64.

are as normal an occurrence as (somewhat longer) periods of work for a great many workmen?

"The interviews with these formerly skilled men disclose another important result. The very keenness and initiative which among other things had made these men comparatively more valuable on the job bring them more quickly to a state of discouragement and despair, as status is lost." [21]

Psychosis from Unemployment.—That unemployment may result not only in severe personality upset, but in actual insanity, is indicated by a series of cases reported by Wells (1935):

"One after a marital argument began to strike himself with dishes, finally hit his head with a bottle, causing a laceration that had to be sutured. Later, after an ill-judged attempt to secure some police interference, he returned home, began to break all the chinaware, and was otherwise violent. Taken to jail and then to hospital, his ward behavior is described as without distortion, pleasant and cooperative. He was found without psychosis and discharged to court after about two weeks. A second, long out of work in the depression, often went hungry. On day of hospital admission had risen at five in the morning, gone on unsuccessful hunt for work. Asked fifteen cents credit for coffee and doughnuts at lunch-room where he had sometimes eaten, was refused. Leaving, he 'felt funny,' leg pained him (previously injured), he threw a brick through the plate glass window of a nearby store, not far from a police station. Arrested and brought to hospital, could not explain his conduct, he felt 'just like a man drunk.' Next day and thereafter was entirely clear, 'cooperative and fairly pleasant with no distortion of behavior.' He remained in hospital about three weeks, then was discharged to court as 'not insane.' Sometimes the break in mental compensation does not exhibit such angry or destructive tendencies, but the reverse, misplaced. A third case is again long out of work in the depression. On the morning of admission he entered a store to telephone, where a woman was cleaning a stove. Failing to find the number, he endeavored to force on the woman his assistance in cleaning the stove. The police being called, he tried to get away, but was brought by them to the hospital. There he is described as pleasant and cooperative, remained about eight days, and was discharged as without psychosis. . . ." [22]

In this series of cases, of which several more are cited, it is interesting to note that the behavior may be interpreted as meaningful in relation to the patient's experiences, but expressed in an exaggerated or socially disapproved manner. It is also striking that all recover promptly when placed in the protected environment of the hospital.[23]

[21] Clague, Couper, and Bakke (1934), p. 94. The italics are mine.

[22] Wells, in Murchison (1935), pp. 870-871. Reprinted by permission of Clark University Press, publishers.

[23] This may have had something to do with the good food and comfort they met there. It seems to lend color to the story of the inhabitant of an insane asylum

Unemployment and Attitude.—That unemployment and economic conditions have marked effects upon attitude may be illustrated by the political behavior of the American people. In 1928 the Republican party was given national power by a landslide; in 1932, on a platform almost identical with the Republicans, the Democratic party received an even greater landslide. It was generally agreed by political observers that this represented an attitude of discontent and a feeling that anything would be better than the passivity of the Republican regime.

Scientific studies of unemployment and attitude are not numerous, and few of them include control measures of similar employed workers. Hall (1934) is an outstanding exception; he measured employed and unemployed engineers, getting groups which were rather well matched as to former status, training, and so on. In his results he emphasizes differences on individual statements of opinion; for example, most of the unemployed show a markedly greater tendency to agree with such statements as: hard work is not rewarded; you need pull to get ahead; most employers will get as much and give as little as they can. They also showed a loss of religious faith and a tendency to a diffuse kind of political discontent, not directed into radical channels for the most part. A considerable number thought the country needed a revolution, and about the same number thought a dictator would be good for the country. Apparently, as far as this group was concerned, unemployment had caused a shake-up of traditional opinions and attitudes, but had not crystallized any economic philosophy or definite program. Thus it is easy to see how, in Russia, economic distress led to a communist revolution, and in Germany relatively the same conditions led to a fascist upheaval (which is a quite different matter).

Summary

The individual lives within the economic system and is affected by it in many ways: in the necessity for conforming to certain working conditions or social expectancies; in the disorganization of family life produced by economic insecurity; in the competition for income and status; and in the hazard, ever present for many workers, of unemployment and acute deprivation. The individual's conception of himself and of others is necessarily modified by these factors. Generally speaking, the data show that favorable economic status fosters desirable personality traits; economic hardship is associated with poor personal adjustment, delinquency and aggressive social attitudes.

who passed up an opportunity to get out, and was told that he was "crazy not to take it." Whereupon he is alleged to have replied promptly that he would be crazy if he did!

The economic system is, of course, itself a product of the individuals who compose it. There is some reason to suppose that modifications in the procedures of child training and schooling might facilitate economic reforms, which in turn would be beneficial to the personalities affected.

Suggestions for Reading

The importance of personality in industrial situations has been accorded wide recognition in recent years. McMurry's *Handling Personality Adjustments in Industry* and Garrett's *Counseling Methods for Personnel Workers* give useful material. At the more fundamental level of the relationship between industrial routine and personality organization, we recommend Roethlisberger and Dickson's *Management and the Worker* and Elton Mayo's *Human Problems of an Industrial Civilization.* Houser's *What People Want from Business* gives a popularized account of morale studies which are important to an understanding of this field. On unemployment, Bakke's *The Unemployed Man* is excellent. Rundquist and Sletto give much valuable data in rather technical form in their *Personality in the Depression.*

CHAPTER XXII

PERSONALITY AND SOCIAL VALUES

The individual human personality is the product of a learning sequence. Driven by inner tensions and guided by external valences, the child conforms to social pressures, introjects cultural norms, and imitates the behavior of leading figures in his milieu. While recognizing the importance of accidents in the individual biography, we feel none the less impelled to conclude that personality is in the main a mirror of the culture.[1]

The corollary of this principle is that the culture is a mirror of personality. A culture has no existence apart from the individuals who comprise it. Feudalism died in Western Europe when individuals in large numbers rejected the basic value standards involved. The noticeable changes in American culture of the twentieth century have evolved as individuals proposed and accepted new norms, set up new frames of reference, and imitated new models. Unfortunately, social scientists have given a great deal of attention to the principle that culture is the major determinant of personality, while giving relatively little to the thesis that culture is only a summation of individual personalities.

The Paradox of Social Change.—It is because of this one-sided emphasis that the so-called "paradox" of social change has come into focus. According to this paradox, one cannot change the individual until the social system is modified, and the system cannot be changed until individual personalities are transformed.

We firmly reject the first horn of this dilemma. It is not true that the individual remains unchanging within an unchanging social order. While the personality risks disapproval and even punishment for nonconformity,

[1] This point is made even more clear if consideration is given to the data of cultural anthropology, which limitations of space have forced us to exclude from this volume. As Maslow has pointed out, psychologists are guilty of a tremendous "sampling error" if they base their conclusions only on personalities developing within Western culture. There are primitive cultures in which aggressiveness, suspiciousness, autistic thinking, masochism, and other patterns are grossly overemphasized or rigorously suppressed, as compared with our civilization. The "normal" individual in many of these cultures would seem insane when judged by our norms, and the reverse would also be true in many instances.

this penalty may be less than the neurotic unbalance forced upon many hapless individuals by the environmental frustrations which have been outlined in earlier chapters. Further, an intelligent psychological approach can minimize these hazards. There are several ways in which the individual can protect himself while espousing values contrary to established norms.

Adjustment to Subcultures.—The culture is not a homogeneous structure. Patterns appropriate to the wealthy are not suitable for the working class. Professional men and teachers are expected to show less aggressiveness than businessmen do. The individual who finds himself in conflict with the culture on one plane may be able to move to another, in which the standards and expectancies are closer to his needs. As more individuals develop and rear children within this subculture, the particular deviations fostered there become widespread and gradually affect the remainder of the culture. Such an example is the urbanization of America, with its marked effect even upon those persons remaining in rural areas.

Forming Mutually Supporting Groups.—Even though there may be no subculture exemplifying the values espoused by a nonconforming individual, he may find it possible to draw together a few other personalities of similar deviation, and the members of the group may thus render mutual support. Such an instance occurs in the development of a new religion or a radical political party. Because of personal frustrations, one or more persons reject the cultural norms in a given regard and project a new norm based on fantasy. If they can locate others who are sensitized to this same modification of social value, they may succeed in organizing a group within which they obtain social approval, prestige, and even protection against the wrath of the larger culture. Eventually this may lead to the evolution of a new subculture and so to the modification or even the overthrow of the major culture.

Encapsulation.—The individual may reject the norms of his society, but he may not seek (or may fail to find) supporters for his proposed new values. In such a case he may simply encapsulate himself, withdraw from social contacts, and perhaps write or propagandize for his new ideals. While this pathway leads to much psychic pain, we must presume, in terms of Freud's reality principle, that the total pain is less than that which would result from enforced conformity to established values.

Social Change Is Necessary.—It is possible to change the individual, even within the framework of an existing culture. Furthermore, it is important that we recognize the necessity of attempting to change the social order. It is a sign of maladjustment, not realism, when psychotherapists argue that they must help their patients to become adapted to

established conditions and values. We do not mean that the therapist should attempt to impose his own private scheme for social reorganization upon his patients; he should, however, encourage the development of insight into the relations between the patient's personal goals and the patterns of society. Each person can then make an intelligent decision, freed to some extent from emotional blockages, as to whether he will conform to the cultural norm or seek an escape from it.

The philosophy of cultural relativity has been useful in breaking down the false conception of an unchanging, unmodifiable human nature. But it may have, in turn, proved a block to progressive thinking by instilling the unconscious principle that the individual could achieve adequate happiness and self-development in any cultural framework. As Murphy (1939) has pointed out:

"There is surely little sense in continuing to speak as if man could adapt himself equally well to any environment. Here the concept of cultural relativism has done immense damage, indeed as great damage, I believe, as the concept of unchanging human nature. Both notions are blatantly at variance with the findings of cultural sciences. If man is to be moulded to society, society must also be moulded to man." [2]

Society as the Patient.—Another way of phrasing this idea is to suggest that, instead of considering maladjusted personalities alone as needing therapy, it may be fruitful to consider society as the patient. L. K. Frank (1936) has applied Freudian concepts to this problem in a stimulating way. According to this view, individual maladjustments are *symptoms* in a disease of a larger organism, the social group. Such a view, he remarks, is in decided contrast to the current position of social scientists:

"At present we cherish a belief in a normal, intact society against which we see these criminals, these psychopaths, these warring husbands and wives, these recalcitrant adolescents, these shameless prostitutes and vicious sex offenders, as so many rebels who threaten society and so must be punished, disciplined or otherwise individually treated."

To facilitate the transition to the new mode of thinking, Frank goes back to the Freudian concept of the Super-Ego (see Chap. XV), which has been considered the individual's introjection or self-imposition of social taboos and obligations. The Super-Ego is thus a composite of the individual's view of society and his impulse to act in accordance with it. Now, says Frank,

[2] Murphy (1939), p. 111. Reprinted by permission of the *Journal of Social Psychology.*

"When the culture no longer provides for a superego that is integrated and wholesome, but by its many conflicts and ambiguities makes the superego socially ineffective if not self-destructive, we must recognize the necessity of revising our ethical and moral ideas."

Conflicts within the Super-Ego.—It is not difficult to demonstrate that there are marked conflicts within the cultural norms of Western civilization, and that these in turn must be expected to set up conflicts within the individual personality. The following are only a few such inconsistencies: [3]

1. This is a world in which it is "every man for himself and the devil take the hindmost."

But: no man lives to himself alone; you should love your neighbor as yourself; we should all work together as good Americans.

2. Democracy is the best form of social organization ever developed; all men are created free and equal.

But: most of the people are too dumb, or shiftless, or both, to be trusted with a voice in the handling of industrial problems and probably in government, too.

3. Doing your own job well, wherever you are, is more important than trying to make a lot of money.

But: money makes the world go round.

4. Religion and the "finer things of life" are what we value most highly.

But: religion and business don't mix.

5. It is smart to have the newest model automobile, the most modern industrial processes, and the latest technical equipment.

But: anybody who proposes tampering with our fundamental institutions of government or industry is a dangerous radical and should be shipped back where he came from.

6. Poverty is deplorable, and we should take steps to eliminate it from America.

But: the poor you have always with you.

7. Hard work and thrift are signs of sound character; they are the dependable roads to success.

But: the smart boys know how to make money and go places without working.

It would be possible to increase this list substantially, and to show that we impose contradictory expectations upon our children by rearing them in this kind of culture. Like Norman Maier's rats or Pavlov's dogs, the

[3] Many such listings have been published; this one is more or less directly adapted from pp. 60-62 of R. S. Lynd's *Knowledge for What?*

human being finds himself in a conflict situation and tends to develop an "experimental neurosis," except that this is no experiment.

In connection with our discussions of home, school, and industry we have emphasized the contradictions between authority and democracy, between submissiveness and independence, between domination and cooperation. It is only when we take the larger social framework into consideration that this picture becomes understandable. It is not enough to ascribe a child's personality distortion to a domineering mother. Why does the mother become dominative, and why does the child resist? Many labor conflicts arise because of the will to power of business executives and union leaders; but some workers develop neurotic symptoms in this same situation. Neither the social nor the personal conflict can be considered desirable in a broad humanitarian frame of reference.

Social Norms as Symbols.—When we attempt to locate a "social norm," with the intent to operate upon it and change it, however, we find that it is difficult to do so. The norm exists only as a set of symbols, a pattern of verbalization, in the minds of individuals.

Only too often these symbols are loaded with unconscious emotional conditionings. Much of the child's frame of reference is introjected while he is intellectually at a pretty low level; some of the basic standards are implanted even before the acquisition of language. It is thus difficult to dig out these symbols and evaluate them anew in a mature perspective, just as it is difficult for many neurotics to dig out the earliest memories which determined their symptom patterns and to reevaluate these incidents outside the infantile context. There may be strong emotional resistance to such excavating. These symbols are related to a multitude of valences, parental authority, threats of punishment for doubting, rewards for conformity, and so on. The individual who has really accepted his culture's norms and values often cannot discuss them intelligently; he can only become enraged if they are questioned.

It is, however, possible for the individual to talk to himself about these symbols. He can, in fantasy, put them into new contexts; he can attempt to locate the exact operations which are presumed to be the referents of each term.[4] Particularly if his personal experiences have been such as to neutralize some of the valences involved, he will be able to consider them rationally and perhaps to construct a new frame of reference, in which new standards of value replace those which have served the race poorly in recent years.

[4] Semantic analysis will undoubtedly facilitate this process. It is to be hoped that the public schools will soon begin utilizing some of the semantic techniques for clarifying the thinking of the average student.

Adjustive Value of Larger Social Changes.—The primary group (family and close friendships) lays down certain patterns which transfer to secondary-group relationships: thus, the child's attitude toward authority transfers from parents to school, industry, and government. His craving for security and his demand for recognition will also determine much of his behavior in the larger group situation.

It appears likely that the reverse of this equation holds true to some extent, *i.e.*, that activities on the larger social level may have adjustive value for relieving primary-group tensions. In summing up a study of the personality development of young radicals, Krout and Stagner (1939) wrote as follows:

"In a world in which secondary-group contacts have assumed a dominant role, adjustment of primary-group tensions may now be satisfactorily accomplished in this fashion (*i.e.*, through secondary-group activities). The day in which such tensions expressed themselves in primary-group relationships is perhaps passing. Henceforth, it may be expected that economic tensions will cause more maladjustments than before, and, conversely, that the substitutive value of socio-economic integration may be greater than previously." [5]

Certainly we have adequate evidence to indicate that social reforms may reduce the frequency of primary-group conflicts. Even if the larger cultural changes have no immediate adjustment value, therefore, they are amply justified; but it seems likely that the individual, by adopting a positive program of attempting to modify social values, adds something to his own life which benefits his personality integration.

Resistance to Social Change.—In the face of these considerations, why is it that many individuals, even those facing social catastrophe, make no effort to modify the environment and so to avert disaster? An excellent analysis of this question has been made by Allport, Bruner, and Jandorf (1941), who analyzed 90 detailed autobiographies of victims of Nazi persecution. "Several lines of evidence," they write, "force us to the conclusion that our subjects *actively resisted* recognition of the seriousness of the situation, or in cases where the seriousness was realized, failed at first to make a realistic adjustment to it." [6]

These lines of evidence converge on four psychological mechanisms which prevented attempts to deal adaptively with the situation: (1) *persistent goal striving* (the desire to continue in quest of the culturally established goals, family security, education of children, business success); (2) *need to retain a structured field* (adoption of a new course of

[5] Krout and Stagner (1939), p. 44. Reprinted by permission.

[6] The italics are mine.

action threatened insecurity, upsetting established ways of behavior, adapting to strange customs); (3) the *pull of the familiar* exerted a positive attraction; and (4) *unconscious defense mechanisms*, such as denial of danger, rationalization of the situation, fantasy, and temporary isolation, cooperated to prevent realistic action.

All these processes can readily be identified in the thinking and behavior even of persons who are not endangered by so paralyzing a threat as that of the Nazi terror. In America today, many individuals who are threatened with economic insecurity, racial and religious prejudice, industrial autocracy, and atomic war, show the same concentration on traditional goals, the same clinging to familiar patterns, and repression of any awareness of danger. From our viewpoint, such individuals seem as maladjusted as adults who cling to infantile gratifications and repress their strivings for sexual and social maturity. The ultimate result may be social disaster, rather than individual psychosis; it is none the less tragic.

The Individual's Obligation to Society.—A psychologist can scarcely endorse any except an individual-centered culture. Being constantly impressed with the importance of the unique personality, he inevitably rejects a totalitarian doctrine which seeks to set the nation, the race, or any other group above the welfare of the individual. To him, the social organization is a means to personality development, not an end in itself.

Nevertheless, there are circumstances under which a concern for social conditions is self-preservative as well as race-preservative. When the Nazi menace loomed over Germany, many intelligent liberals avoided taking action, feeling no personal responsibility. In the dictatorship which ensued, these individuals suffered terrific frustrations and maladjustments; often they resisted and died when it was too late. The achievement of a social order in which each person has a fair chance to develop his own capacities to the optimum, in which personality frustrations and maladjustments are minimized, is a task to which each of us owes certain obligations. Otherwise, we, like those Germans who thought Hitler no personal menace to them, may find ourselves losing both liberty and life.

But this social order, with its opportunity for individual self-expression and the pursuit of goals free from undue state domination, is both an end and a means. It is desirable to the educated man because of his culturally derived needs and the functionally autonomous character of his activities. But it is, if preserved, improved, and extended in scope, also a preventive of fascism, dictatorship, and war.

The rise of fascism, and of similar totalitarian movements, must be traced to roots in the individual personality. Fascists are frustrated

people who have turned to group action as a tentative solution to their problems. They are joined together by common delusions, common hatreds, and common aspirations. The extent to which economic catastrophe and, even more, threats of disaster contributed to the rise of the Nazi organization has been described by various authors. The role of frustrated desires for ego expansion, dominance, and grandeur must have been equal or greater [*cf.* Abel (1938)]. The identification of each individual Nazi with Hitler and with Greater Germany was a satisfaction of a deep personal need. Persecution of Jews and radicals was a means of release for pent-up aggressions. The feeling of superiority to Jews and to all non-Germans served a dynamic purpose for many. Hitler's propaganda was effective not because of any personal gifts that he possessed, and not because of the technical competence of Goebbels, but because it provided substitute goals for deep-seated strivings of many Germans.

Prevention.—It is not common sense to leave a mountain road without guardrails, while building a hospital at the foot to care for survivors of accidents. It is not good judgment to wait for fascism and war to come roaring about our doorsteps, and then seek to contrive cures. Prevention is the only safe course; in the day of the atomic bomb, it is the only sane course.

How could we prevent fascism in America in the event of another depression? What policies will reduce its probability in other lands? How can we begin now to revise social values and social practices so that we reduce personal maladjustment and thus deprive the potential fascist leader of his followers? How can we modify those social values and practices which make for totalitarianism and war?

Psychological Man

E. C. Tolman, in a penetrating little book, *Drives toward War,* suggests that *our society needs a new social value,* a new ideal personality to be held as a model. Following Drucker, he points out that Western civilization has successively idealized Spiritual Man (when the church was the major institution), Intellectual Man (at the Renaissance), Economic Man (under modern capitalism), and Heroic Man (in the fascist states). Each of these ideals has failed, and for the most part the societies clinging to these ideals have withered, because they were unable in some way to meet the psychological needs of their citizens.

Tolman, therefore, proposes that a new ideology, a new conception of the ideal personality, is required. This new view of man and of his role in the culture is tentatively labeled "the Myth of Psychologically Adjusted Man." According to this suggestion, society should idealize, and

citizens should be encouraged to aim for, the goal of psychological adjustment or emotional maturity. Previous social ideals have collapsed because they exalted the religious value, economic values, theoretical values, or militaristic values. In each case, an attempt was made to exaggerate certain aspects of personality and to suppress others. The result necessarily was a great deal of unhappiness on the part of those who did not fit comfortably into the schema and a substantial amount of aggression, generally directed against some group within the culture.

A stable society can be built only around ideals which are broad enough to allow satisfaction to all of man's major needs. It can function successfully only when most individuals in the population are reasonably well adjusted and emotionally mature. Infantile, greedy, power-seeking, ruthless personalities, in any considerable number, can wreck any society. The ideal of Psychologically Adjusted Man is, therefore, one which holds forth the maximum of hope for a permanently democratic social organization.

Such a society would be stable not because dissenters were suppressed by force, but because dissenting ideas would be given fair consideration and adopted if they met the criterion of the welfare of the majority. If privileged persons are emotionally mature, they will be capable of modifying or abandoning their privileges upon popular demand. (We have made some progress toward this goal, in that our political leaders relinquish their posts of power after defeat in an election, without a resort to arms.) Similarly, if the electorate were in the main emotionally mature, propaganda appealing to infantile aggressive or selfish urges would be ineffective. Mass movements of the Nazi-fascist type could not get started.

Toward Mature Social Values

A mature society assumes the existence of mature personalities. Dictatorship and war are made possible by emotional infantilism on the part of both leaders and followers, and the conditions they create are such as to block the adequate personality development either of adults or of children. A mature society must be democratic, *i.e.*, it must provide freedom for each unique personality to develop to its maximum potentialities, restricted only by the requirement that this development imposes no barriers on other personalities.

A first approximation to a program for achieving mature personalities in a free society is found in the data collected by Stagner (1945). In this case, 52 prominent American social psychologists gave their views on various proposals, presented formally as a program for the long-term prevention of war, but in essence a plan for the relief of human frustration and

the development of well-adjusted personalities. In Table 30 are reproduced those items which received a high degree of approval from virtually every psychologist polled. It will be valuable to analyze briefly the implications of this program.

TABLE 30.—TOWARD A PSYCHOLOGICALLY ORIENTED SOCIAL ORDER[1]

(Stagner, 1945)

Proposal	Average Rating
1. Give workers more self-expression through increasing the trend toward industrial democracy	1.24
2. Guarantee a minimum standard of living to every family (in relation to economic resources of nation, etc.)	1.26
3. Educate for scientific thinking in human relations, trying to achieve insight into animistic "scapegoat" reactions	1.28
4. Increase opportunities for higher education for youth in the lower economic strata	1.50
5. Decrease concentration of wealth through government-financed cooperatives, consumer and producer	1.53
6. Reduce emphasis on competition and getting ahead in our culture	1.70
7. Provide widespread mental-hygiene clinics for adults and especially for children	1.81
8. Give increased opportunities for individual prestige and recognition through hobbies, contests, etc., not connected with the economic system	1.88

[1] These proposals were presented with the following instructions:

"A great many planners believe that permanent peace can be achieved only on the basis of the alleviation of aggressive tensions within the individual. This includes both the arousal and the dispersal of such tensions. Please rate the following proposals on a 5-point scale."

The results are based on the replies of 52 prominent American social psychologists. Maximum approval would be indicated by a rating of 1.00; maximum disapproval by 5.00. Items receiving mean ratings beyond 2.00 are not reproduced here.

Authority and Discipline.—The desire to dominate may be innate, if we apply Maslow's data on apes and Murchison's on chickens to the human species. Whether innate or acquired through cultural assimilation, the wish for power and authority finds its complete and uninhibited expression only in infantile personalities. The mature individual is willing to grant to others the same rights that he demands—*i.e.*, he will not attempt to force them into submission for the sake of satisfying his own impulse to dominate.

In the democratic system we have worked out a rough application of this principle to governmental institutions. Infantile, power-seeking individuals who impose unnecessary frustrations upon the citizenry can be ejected from positions of authority by peaceful means. Unfortunately, the educational and the economic systems are relatively unaffected by this democratic point of view. As was noted in Chap. XXI, a great

many personality maladjustments seem traceable to the autocratic form of our industrial organization, and certainly a great deal of labor strife has its roots in this power relationship. The frustrations, moreover, which the adult receives in connection with his job may have repercussions upon his wife, children, and neighbors. He may join an organization persecuting minority groups, as an outlet for his own aggressions; or he may become a belligerent nationalist and thus contribute in a minor way to the occurrence of international war. McGranahan (1946) notes that Nazi youth differ most markedly from American young people in their high value placed on authority and the submission of the individual. This value is appropriate to a totalitarian society, with its ruthless frustration of many citizens.

Industrial democracy, therefore, merits its high rank among the new social values which need to be inculcated if a mature culture, favorable to mature personalities, is to be developed. Industrial democracy need not connote anarchy, any more than political democracy eliminates authority and discipline from the governmental process. It should imply the establishment of rules to protect the integrity and self-respect of the worker, treating him as a valued human personality and not as an extension of a machine. It should allow the worker some voice in his working conditions—an opportunity to make positive suggestions, as well as to reject those which are painful or frustrating to him. Every employee of an industrial enterprise should have an opportunity to feel that the product is in some degree an extension of his own personality. Industrial democracy would bring to psychological maturity the last great stronghold of arbitrary authority and infantile domination: our economic system.

Economic Frustrations.—Preceding chapters have presented data to show that economic frustrations have seriously detrimental effects upon personalities of both adults and children. These effects may be either direct, as through discomfort and deprivation of needed care, or indirect, through depriving the child of emotional security and affection from his parents.

In view of these facts, it is not surprising that two items relating to economic frustrations rate highly with these judges. Item 2 (guaranteed minimum standard of living) and item 5 (decreased concentration of wealth) would each tend in the direction of reducing biological frustrations in the poorer levels of our society. They would also tend to relieve stress, worry, and uncertainty over impending economic disasters. Over a period of time it may be assumed that item 5 would lead to a narrowing of the extreme difference now existing between wealthy and poor; this would reduce jealousy and hostility based on that perceived difference.

As Davis (1946) has pointed out in an unusually perceptive article on the psychology of the underprivileged worker, these economic reforms could safely be expected to bring about major changes in the personalities of many individuals. The marginal worker (marginal, by virtue of race, physical or educational handicap, so that he is the last hired and the first fired) has learned not to accept the goals of our culture. His only dependable pleasures are organic: sex, food, and alcohol. He cannot plan for long-time achievements, because, just as he is saving money enough to near his goal, he is laid off and his self-denial comes to naught. His "shiftlessness" and attachment to animal pleasures are thus normal adaptations to an abnormal social situation. Economic security would give him protection and make possible acceptance of the educational and other goals approved by our society.

Economic insecurity is also a major factor in anti-Semitism, persecution of racial groups, and other "scapegoat" reactions. Frenkel-Brunswik and Sanford (1945) conclude that overt anti-Semitic activity is likely to be set off by economic worries. Hovland and Sears (1940) found that lynchings of Negroes in the South tended to increase as the value of cotton decreased. Aggression based on economic frustration is displaced onto minority groups, with drastic effects upon freedom for personality development in these groups.

Competition and Prestige.—Like the Kwakiutl and the Mundugumor,[7] American culture places a high value on competitiveness and prestige. While competition has undoubtedly had beneficial effects in economic and other aspects of our society, it can, if exaggerated, have very harmful consequences. Even the business-minded advocates of "free competition" quickly indicate that competition should in their opinion be not entirely free. "Unfair competition" (usually "That which hurts my business") should be barred.

Competition as between individuals may have benign or malignant effects, depending on how it is perceived. Good-natured competitiveness, with no intense emotional reaction set off either by success or by failure, is stimulating and pleasant. Tense rivalry, with keen elation for the victor and black depression for the loser, is not.

Many individuals are handicapped by heredity or environment for the competitions in our modern culture. Low intelligence dooms the child to chronic failure in a one-track school. Lack of educational advantages denies him promotion in business. An environment which has

[7] For a description of Kwakiutl culture, see Benedict (1934); for the Mundugumor, Mead (1935).

not inculcated certain personality traits may mean failure in professional affairs.

The economic proposals, particularly item 5, would tend to reduce the bitterness of competition in that realm. Item 6 proposes a general diminution of emphasis on "getting ahead." This would presumably be implemented through the schools and through parent-education classes, in which specific suggestions would be offered as to ways of reducing this competitive pressure. Item 8 implies that sublimation of many competitive tendencies into noneconomic channels would provide the individual with ego gratification and increase his self-esteem.

Changing Perceptions and Expectancies.—Finally, we come to a group of three proposals which, while nominally cultural in character, actually relate directly to personality modification. It must be assumed that there will be many misfits and maladjustments, even under an improved social order; that people will feel jealous, suspicious, resentful, and hostile toward their neighbors; that unique person-to-person interactions will produce some emotional problems.

Such emotions can do little damage to the individual or to his surroundings if he has insight into himself and perceives clearly the nature of his situation. Anti-Semitism, prejudice against Negroes, totalitarianism, and warmongering are social attitudes displacing emotional tensions from personal to group goals. The anti-Semite is characteristically a person with repressed or concealed hostility toward parents and other persons, which hostility has unconsciously been displaced onto the Jews (Frenkel-Brunswik and Sanford, 1945). Vindictive and destructive attitudes are most common in frustrated groups, according to a variety of public-opinion polls. Warmaking attitudes are displacements of personal aggressions (Brown, 1942). There is every reason to suppose that if individuals had clearer insight into their own motives and emotions, they could resolve their problems without resorting to social aggression. The social psychologists, therefore, gave high approval to item 3, which seeks to eliminate animistic thinking and scapegoat reactions. A general expansion of higher education (item 4) was also approved, for reasons which may have included economic advantage to the young persons concerned, as well as broader insights. Finally, expert care in the early years for children developing emotional maladjustments (item 7) is endorsed as a procedure for nipping neuroses "in the bud."

The individual who perceives other human beings as threatening and dangerous to himself is not only a maladjusted personality who needs therapy; he is also a potential menace to others. Conceiving his ego, or even his life, to be in danger, he may take aggressive action against the

person or the group which he considers responsible. If he succeeds in focusing the hostilities of others upon the same persons or symbols that he hates and fears, he may bring great frustration and psychological harm to many human beings. Thus it is no mere academic proposition that conditions making for neurosis are conditions which endanger persons far beyond the immediate impact of the situation.

Economic Action

A program which calls for providing a guaranteed minimum standard of living, an end to unnecessary biological and ego frustrations, and an expansion of industrial democracy may seem extremely ambitious. It may even be charged with being inconsistent, as some economic theorists have held that the quest for economic security is incompatible with freedom and respect for the individual personality.

We are inclined to doubt this view. In some cases, it has patently been pressed as a rationalization for the retention of power by big industrialists. In other cases, it may have been merely an expression of a distorted perception of reality.

There are several lines along which progress is being made without loss of freedom. *Federal social security* and state unemployment-compensation legislation have obviously improved economic security, with no visible damage to the personalities of the recipients. Such data as we possess (*cf.* the preceding chapter) indicate that economic security aids, rather than hinders, the achievement of a well-adjusted personality.

Various industries are now experimenting with *annual wage plans.* Such plans, if generally adopted, would relieve many of the fears and tensions affecting parents, and would have correspondingly beneficent effects upon adult and child personalities.

Cooperative enterprises offer an economic form which seems admirably adapted to the requirements of this program.[8] The cooperative form involves no sharp break with the capitalistic tradition; in some instances, the same managerial staff and employees have been taken over into a cooperative from a traditional concern. The cooperative, however, is

[8] Cooperatives are generally of two kinds: producer coöps and consumer coöps. In America, the former are typified by farm organizations which buy fertilizers, machinery, and supplies, or which market dairy products, fruits, and grain. Consumer coöps started as local grocery stores, owned by their customers, which now have set up consumer-owned wholesales and even factories. The basic requirement in both cases is that each member has one vote (not a vote for each share owned) and that all savings are rebated to members in proportion to purchases through the coöp (not in proportion to money invested).

controlled by people, not by money invested; it is thus an extension of democracy into the economic field. Furthermore, the coöp makes refunds on the basis of use made of its facilities. Thus a man with a large family, making more purchases, receives a bigger dividend than does a bachelor. The coöp tends toward ironing out economic inequities and providing a better standard of living for its members.

Because of their lack of capital, cooperatives cannot tackle very large enterprises in this country. Furthermore, there are some activities in which the political interest is so deeply entwined that they should be undertaken only as a *government-owned enterprise.* Such are the soil-conservation, flood-control, and power projects patterned on TVA, as well as the atomic-power project, which, we hope, will be the humanitarian sequel to Hiroshima.

It is futile to talk about a mature society, idealizing the psychologically adjusted man, without considering the economic aspects of such a society. Unnecessary barriers to free personality development must be broken down; biological and ego frustrations must be reduced to a minimum. A *mixed economy,* utilizing government enterprise, progressive action by private industry, and the cooperatives, seems our greatest hope. Gradual modification of our institutions to achieve these psychological goals will best serve the needs of present and future citizens of the world.

Educational Action

The proposals which have been set forth also call for positive action in the sphere of education. It is held that our educational institutions could function (1) in correcting distorted thinking and in improving personality adjustment within the existing patterns; and (2) in teaching social values basic to democracy, implanting attitudes which would facilitate the adoption of the economic, political, and social reforms which would aim toward the goal of mature personalities in a free society.

What are the values which correlate highly with a basic belief in democracy? What are the accessory perceptual patterns, over and above a mere stereotyped approval of democracy as such, which will support and strengthen democratic practices?

The publications of Harding (1944a, 1944b) offer some valuable clues at this point. Harding has shown that a belief in democracy, placing a high value upon democratic institutions, is positively related to the following values:

Naturalism (a scientific view of man in the universe)
Socialization (all classes are equal)

Progress (it is good to try new ideas)
Activism (we should encourage critical thinking)

Doubt or rejection of democracy was found to be associated with the following values:

Authoritarianism (my government, right or wrong)
Transcendentalism (powers outside of and higher than man)
Personal security (limited to the upper classes)
Status quo (don't disturb existing balances)
Passivism (students should accept what teachers say)

Thus we have some very concrete suggestions as to the kind of values children should be encouraged to adopt.

Whether parents, schoolteachers, and employers will cheerfully give up the pleasures that they enjoy as a result of authoritarian, status quo, and passivist values is not so clear. Certainly the means developed to achieve these democratic values must themselves be democratic. The USSR seems to prove conclusively that autocratic methods do not provide a short cut to democracy. The principle of functional autonomy operates: those who give orders enjoy doing so and want to continue; those who submit to domination may not enjoy it, but they certainly do not develop attitudes and skills suitable to democracy.

Education for democratic values must, therefore, be channeled through democratic procedures. Adult-education classes, child-guidance clinics, nursery schools, parent training, the public schools, and the colleges must all be used as mediums for spreading these ideas. If we have faith in the superiority of democratic ideals, we should believe that such education will ultimately succeed. Nevertheless, it is a form of self-protection to hasten the process as much as possible.

Personality and Society

We have defined personality as the individual's conception of himself in relation to his environment. The adjusted personality is one in which these conceptions bear a realistic relation to physical and social facts. The Self-image is normal when the individual perceives realistically his own strong and weak points, his abilities and handicaps. The orientation to society is normal when the individual correctly perceives the positive and negative valences, the barriers and pathways in his field.

A maladjusted or neurotic personality may deviate from this norm in various ways. The Self-image, for example, may be distorted to exaggerate one's beauty, intelligence, or talent. On the contrary, of course,

the distortion may be in the denial of ability or overemphasis on weakness. Similarly, the view of society may be neurotically optimistic, involving a denial of real problems and usually a rejection of responsibilities; or it may be neurotically pessimistic, leading to a paralysis of action in the face of unreal but terrifying dangers.

It is clear that a program calling for well-adjusted personalities must recognize in some degree the adaptation of the individual to social reality here and now. If, however, the person achieves insight into his own emotions and his relations with society, he may realistically decide to reject social conformity in favor of education for a new social ideal. Even if he develops a superficial adaptation to established social norms, he may still cling to a fantasied perception of a new society, and may in numerous ways help to bring that fantasy into being on the level of reality.

In the long run, however, personality and society must continue in their relationships as virtual mirror images of each other; and this means that there must be continual progress toward the goal of mature personalities in a mature society. Human intelligence must be freed from emotional bonds within the personality if it is to be effective in working for a better society; it must be freed from irrational environmental frustrations if it is to achieve a well-rounded personality. Progress along one line will facilitate gains on the other. Ultimately we can anticipate our goal—free personalities in a free society.

Summary

The individual personality is, in the main, a mirror of the culture; and the culture is, in essence, a composite of the personalities which exist within it. Excessive environmental frustrations can distort personality, and frustrated personalities may accept ideals, such as those of fascism, which perpetuate and aggravate individual problems.

It is proposed that the optimum personality development can be achieved only in an individual-centered culture, and that such a culture can be attained. Specific suggestions include the extension of democracy to economic activities, the reduction of biological frustrations, and other devices for alleviation of aggressive tensions; also, educational policies aimed at ending the emotional persecution of scapegoats and developing mature personalities, immune to propaganda for hate and fear.

While individuals run certain risks in endorsing such proposals in contradiction to cultural norms, the risks may well be evaluated as smaller than those inherent in following a course which may lead to fascism and atomic war. Psychology offers the possibility of modifying individual values, with the ultimate aim of modifying the culture to provide greater

freedom for all individuals. The task is to free intelligence from the bonds of emotional and cultural distortion. The goal is the development of mature personalities in a truly democratic society.

Suggestions for Reading

Gardner Murphy's *Human Nature and Enduring Peace* contains several chapters relevant to the ideas suggested here. Durbin and Bowlby's *Personal Aggressiveness and War* also makes important contributions to the psychology of personal and cultural relationships. James Marshall, in his *Freedom to Be Free,* develops the idea that democracy and emotional maturity must go hand in hand. Kardiner's *The Individual and His Society* and other contributions from anthropology support indirectly, if not always explicitly, the propositions set forth here. Lewis Mumford's *Values for Survival* presents a viewpoint quite similar to that of the present chapter, with a variety of supporting data and excellent logic.

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