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PSYCHOLOGY AND THE SOCIAL ORDER

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PSYCHOLOGY

AND

THE SOCIAL ORDER

An Introduction to the Dynamic Study of Social Fields

BY

J. F. BROWN, PH.D.

Associate Professor of Psychology at the University of Kansas

Research Psychologist at the Menninger Clinic

FIRST EDITION

SEVENTH IMPRESSION

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PREFACE

In this book I have presented the material that I cover in the lectures on social psychology at the University of Kansas. When, four years ago, it became my duty to deliver these lectures, I looked in vain for a text which might adequately cover the subject matter for a large group of students, most of whom had neither the desire nor the aptitude to become professional psychologists. The older texts which presented the psychological mechanisms supposedly governing social behavior in a broad and inclusive fashion are methodologically hopelessly outdated. The newer works, on the whole, are so concerned with not making the methodological errors of the Instinct School of social psychologists that they neglect first principles altogether. They have little or nothing to say about the great social problems created by the economic and cultural crisis that all competent observers realize is now at hand. Furthermore, most of them are so filled with detailed accounts of the results of so-called experiments and measurements, of which the implications are never clear and actually often contradictory, that they could be of interest only to the specialist. It seemed to me that a course in social psychology should do two things for the general student. It should, first, attempt some clarification of the methodological issues involved even in speaking of a science of social psychology and it should indicate the relationships between social psychology and the other sciences, like sociology, anthropology, and political economy, which are also concerned with social behavior. Secondly, it should present, in all their implications, those positive findings of modern psychological research and theory which may be considered basic to social science and social philosophy. This second point seemed particularly important in these times of economic and political stress, when scarcely a month goes by without the appearance of some very pretentious social philosophy based as a rule on faulty psychological premises. It is along these lines that the lectures were planned and their comparative success has encouraged me to write this book.

The general principles just mentioned have dictated what should be included and excluded in this work. This results, I believe, in a radically new departure. Thus the book starts with a long and

forbidding-looking section on methodology. This seemed to me necessary, for the implications of the whole debate between the behaviorists and the Gestalt theorists have never to my knowledge been worked out for sociology and social psychology. I believe the discussion of earlier theoretical systems of social psychology included in this section will convince the reader that the time for this is now ripe.

I have attempted to make this methodological section thoroughly up-to-date by introducing the mathematical paraphernalia of psychological field theory. This material is, I believe, adequately presented in English for the first time here. It has been my experience that the student will interest himself deeply in this subject matter, which may seem remote and even esoteric on first acquaintance, if the great significance of the issues involved is sufficiently stressed by the instructor. The general finding of the methodological section, namely, that the field-theoretical approach is the most valid approach scientifically, dictates the plan of the rest of the work. This plan is to start with a field-theoretical discussion of the behavior of the largest groups and proceed by the process of abstraction to consider smaller groups until we arrive at primary groups.

The sociological section follows this general procedure. It presents, in so far as space allows, the chief sociological problems from the field-theoretical standpoint. It is immediately followed by a psychological section which attempts a like treatment of the psychological problems.

The inclusion of the final political science section needs a word of explanation. In the present world of confusion and threatened chaos, when the political principles our forefathers thought to have permanently established are denied over large sections of the world, it has become quite obvious that social-psychological reaction tendencies do depend on the economic and political background. One does not have to be a Marxist to grant this. Consequently the political science section does not pretend to be a discussion of political science as such, but rather it attempts to discuss the influence of economic structure and the nature of the state on social psychology. This leads us to Chap. XXII, where, from the standpoint of field theory, we criticize the chief existing social philosophies. From this the reader may see just what the psychologist is able to say concerning social science in general. If, as McDougall first pointed out,

social psychology is basic to the social sciences, the time is certainly ripe to use its findings as a starting point for such criticism.

Several colleagues who have read this section have believed to find in it a certain political bias. Some have even called it propaganda. Should critics take this standpoint, it will not bother me much. I admit an antifascist bias, because it is daily more obvious that fascism is antiscientific. Even the most "disinterested" scientist after all must believe in science. As for the rest, what I have done is to analyze forms of the state and systems of social philosophy in the light of scientific psychological premises. In the case of the state forms, this analysis is concerned with their present structure and their avowed aims; in the case of the social philosophies, it is concerned with their first premises and social predictions. This I believe to be the regular procedure of critical philosophy. Call it propaganda and you add another meaning to this many-valued word.

The two appendices are concerned with matter which I wanted within the covers of the book but which could not be fitted to the stylistic level or the general plan of the work. In Appendix A I have given the mathematical background for psychological field theory in a much more complete and stringent fashion than was possible in the body of the text. Here also I have had occasion to discuss the epistemological and methodological relationships of field theory to certain other modes of attack in the social sciences. In Appendix B I have developed the topological and non-metricized dynamical concepts used through the body of the text more fully and mathematically accurately than was done in Chap. III. These appendices should be indispensable to the advanced student and instructor. Together they cover the ground of Chap. III at a more advanced level and may be read either in lieu of it or as supplementary to it.

So much for what the book includes. In order to cover the above outlined material a great many topics commonly handled by writers on social psychology had to be omitted. I have refused to impose on the patience of my readers by including all the various so-called measurement and experimental techniques used with questionable success in the investigation of attitudes, personality traits, leadership, and group influence on individual output. Sufficient references are given to these techniques in the bibliographical notes attached to each chapter so that the more advanced student may pursue this confused field further. I believe that their inclusion in a work

which aims at establishing first principles serves no real purpose. For similar reasons I have omitted all reference to the work of the characterologists, although I believe some very important positive findings may soon result from their endeavors. Many books on social psychology carry at least a few chapters on mental abnormality as a social-psychological phenomenon. This it undoubtedly is, but an adequate field-theoretical attack on the problems of psychopathology would require a book the size of this. Finally I have neglected the general problem of social learning and its subproblem of speech acquisition. If space had permitted I would have handled these problems. Since practically all learning is social, for the present these topics may better be left to works on learning or general psychology.

Although the work is primarily intended as a text for college courses in social psychology, it is hoped that it will find some audience out of academic circles. The style and mode of presentation have been made as simple as possible for subject matter which is in itself difficult. Although a course in general psychology will prove no particular drawback toward comprehension of the book, I believe the intelligent layman without previous instruction in psychology but with some education in the other sciences might read it with profit. I hope further that the work may start some discussion concerning methodological principles in the various sciences, like sociology, political science, and economics, which border on social psychology. There is abroad now a considerable movement to create an integrated picture of the universe by using the same basic methodological postulates for all the sciences. If the present work contributes to this "united front" of the social, biological, and physical sciences, I shall be well rewarded for the time I have spent on it.

Many former teachers and present colleagues have contributed directly or indirectly to the writing of this book. I have space enough to acknowledge only my most outstanding obligations. From my undergraduate days on, I have been influenced by the lectures and writings of Professor A. G. Keller. Although our positions are now rather far apart, it is a pleasure to record that his justly famous lectures on "The Science of Society" first awakened in me an ambition to become a social scientist.

My greatest professional debt is to Professor K. Lewin. It was as a student of his that I first became interested in the field-theo-

retical approach to problems of sociology and psychology. The mathematical conceptions developed in this work were first applied by Lewin to problems of individual psychology. I must assume total responsibility, however, for their present application to problems of sociology and social psychology. I am not at all sure that Professor Lewin will agree with all the implications I derive from his general methodological position for these sciences. But whether my own work is found good or bad, Lewin's lectures and writings mainly influenced me to attempt it. I also had the great privilege of studying with Professor W. Köhler and Professor M. Wertheimer when the ideas I have developed here were maturing. How much I owe them will be obvious to those of my readers who are familiar with their writings.

In my present position I have profited much from my association with Professor Raymond Wheeler. We have had many and long informal discussions on the methodology of the social sciences which were invaluable to me in the clarification of my thinking.

To Dr. Karl Menninger of Topeka my thanks are due for whatever knowledge of psychoanalysis I may have. For the past several years he has permitted me to attend the Seminar on Psychoanalysis at his Clinic. He also read the chapter on the Freudian theory and helped eliminate some errors present in my first draft.

Mr. Albert Voth prepared most of the original figures of the work under grants from the C.S.E.P.

My indebtedness to other writers and their publishers is, of course, great. Proper acknowledgment is made at the appropriate places in the text.

J. F. BROWN.

PSYCHOLOGY LABORATORY,
LAWRENCE, KANSAS,
July, 1936.

CONTENTS

PAGE

PREFACE v

PART I

METHODOLOGICAL SECTION

CHAPTER

I. INTRODUCTORY MATERIAL 3

1. Provisional definition of social psychology. 2. The need for a social psychology. 3. The hope in a social psychology. 4. The relationship between social psychology and the other sciences. 5. Summary.

II. TWO PHILOSOPHIES OF BIOLOGY 23

1. Atomistic-mechanism, vitalism, and the organismic viewpoints. 2. The inductive, deductive, and hypothetico-deductive methods. 3. The languages of data and of constructs. 4. Class theory versus field theory. 5. Summary.

III. SOME BASIC CONCEPTS IN THE LOGIC OF DYNAMICS . 43

1. The concept of the psychological and social field. 2. Topological concepts. 3. Non-metricized dynamic concepts. 4. Summary.

IV. SOCIAL GROUPS AS FIELDS 63

1. The problem of the reality of the group. 2. The group-mind hypothesis. 3. Field-dynamical analysis of a definite case. 4. Prerequisites to field-dynamical analysis. 5. Summary.

V. SOME PERSISTENT PROBLEMS OF SOCIAL PSYCHOLOGY. . . . 82

1. The scope of the present treatise compared with others. 2. Instinct versus intelligence. 3. Imitation, suggestion, sympathy, habit. 4. Social attitudes and their measurement. 5. The effect of the group on the behavior of the individual. 6. The effect of the individual on the group. 7. The chief characteristics of contemporary social psychology. 8. Summary.

PART II

SOCIOLOGICAL SECTION

VI. CONCERNING CLASSIFICATION. 107

1. Plan of the sociological section. 2. Various forms of group classification. 3. Biological classification with sociological sub-

CHAPTER PAGE

divisions. 4. Functional-sociological classification. 5. Economic-functional classification. 6. In-group versus out-group. 7. Primary versus secondary group. 8. Open versus closed group. 9. Summary.

VII. THE EFFECT OF NATIONAL MEMBERSHIP-CHARACTER 122
1. Race, nation, state. 2. Usual descriptions of national social psychology are class-theoretical. 3. Limitations in a field-theoretical approach. 4. Nations at war. 5. Nations in economic depression. 6. Racial minorities within the nation. 7. The role of the state. 8. Summary.

VIII. THE EFFECT OF CHURCH MEMBERSHIP-CHARACTER 145
1. Religious behavior and religious organizations. 2. The relationship of church to state. 3. Changing functions of the clergy. 4. The church as a subregion of the national field. 5. Dynamical variants in the field structure of various sects. 6. The social-psychological effect of church membership-character. 7. Is religious behavior necessary? 8. Summary.

IX. THE EFFECT OF SOCIAL CLASS MEMBERSHIP-CHARACTER . . 166
1. Are there social classes? 2. Social classes as fields. 3. Dynamics of the class struggle. 4. Dynamics of strikes, general strikes, and revolutions. 5. Summary.

X. THE EFFECT OF MINOR-GROUP MEMBERSHIP-CHARACTER 187
1. The minor groups. 2. Conditions under which minor groups become social forces. 3. Importance of minor-group membership-character for some individuals. 4. Conflict situations between minor groups. 5. The social-psychological significance of membership-character within the topological mean. 6. The interrelationships between groups and the accuracy of our abstractions. 7. Summary.

XI. HISTORICAL RELATIONSHIPS BETWEEN GROUPS AS ORGANIZED WHOLES 199
1. The historical problem of social psychology. 2. Changes in the power and function of the chief social institutions in the last three hundred years. 3. Field-theoretical analysis of these changes. 4. Summary.

XII. THE EFFECT OF FAMILY AND PRIMARY GROUP MEMBERSHIP-CHARACTER 218
1. The primary group exists only after multifold abstraction. 2. The family. 3. Rural versus urban families. 4. Family and social class. 5. Family and nation. 6. The importance of family membership-character as a determinant of personality. 7. Love affairs and friendships. 8. The individual as a social field. 9. Summary.

CHAPTER PAGE

PART III

PSYCHOLOGICAL SECTION

XIII. PERSONALITY AND PERSONALITY TRAITS 237
1. Personality as the pattern of membership-character. 2. The problems of personality genesis. 3. Personality traits and their distribution. 4. The meaning of averages. 5. Total personalities and normal distribution. 6. Personality chiefly determined by membership-character. 7. Summary.

XIV. THE ORIGINAL NATURE OF MAN. 258
1. The problem. 2. Field-theoretical definition of heredity and environment. 3. The possibilities of manipulation. 4. "Hereditary" and "environmental" traits. 5. There is no such thing as original human nature. 6. Summary.

XV. THE FIELD THEORY OF PERSONALITY GENESIS 278
1. The psychological field of the individual. 2. The reality dimension. 3. The effect of blocked tensions. 4. The structure of the person. 5. Correlation between individual field and social field. 6. The development of personality in the normal individual. 7. Summary.

XVI. THE FREUDIAN THEORY OF PERSONALITY GENESIS. 305
1. Relationship between Freudian theory and field theory. 2. Freud's theory of basic urges. 3. The structure of the normal adult personality. 4. The theory of psychosexual genesis. 5. Criticism of Freud. 6. Summary.

XVII. LEADERSHIP. 329
1. The problem of history versus the leader. 2. The problem of freedom of the will. 3. The leader. 4. Field-dynamical laws of leadership. 5. The characteristics of the leader. 6. Summary.

PART IV

POLITICAL SCIENCE SECTION

XVIII. THE STATE. 351
1. State, government, administration. 2. Popular idea of the state. 3. Field-dynamical definition of the state. 4. The governed and the governing. 5. The process of state control. 6. Laws and field structure. 7. Control through persuasion. 8. Who controls the state? 9. Summary.

XIX. TYPES OF STATE: THE LIBERAL DEMOCRACY. 367
1. Types of state. 2. The origin of liberal democracy. 3. Field-dynamical description of liberal democracy. 4. Freedom

CHAPTER PAGE

of social locomotions under the liberal democracy. 5. The control of the liberal democratic state. 6. Fascism and liberal democracy. 7. Summary.

XX. TYPES OF STATE: THE FASCIST DICTATORSHIP 386
1. Field-theoretical characterization of the dictatorship. 2. Origin of the fascist state. 3. The aims of the fascist state. 4. Degrees of freedom of social locomotions under fascism. 5. "Backward" trends under fascism. 6. Summary.

XXI. TYPES OF STATE: THE COMMUNIST DICTATORSHIP 409
1. Field-theoretical similarities and differences between the fascist and communist dictatorships. 2. Origin of the communist state. 3. Aims of the communist state. 4. Degrees of freedom of social locomotions under communism. 5. "Forward" trends under communism. 6. Summary.

XXII. THEORIES CONCERNING THE OUTCOME OF THE PRESENT WORLD CRISIS. 427
1. The increasing need for a social psychology. 2. Types of social theory. 3. Theories which deny change. 4. Theories which affirm change as gradual. 5. Theories which affirm change as mutatory. 6. Summary: Field theory and social change.

XXIII. RÉSUMÉ OF THE ARGUMENT. 462

APPENDIX A. THE MATHEMATICAL AND METHODOLOGICAL BACKGROUND OF PSYCHOLOGICAL FIELD THEORY. 469

APPENDIX B. THE TOPOLOGICAL AND NON-METRICIZED DYNAMICAL VARIANTS IN SOCIAL FIELD STRUCTURE. 487

BIBLIOGRAPHY 503

AUTHOR INDEX. 519

SUBJECT INDEX. 525

PART I
METHODOLOGICAL SECTION

CHAPTER I

INTRODUCTORY MATERIAL

1. Provisional Definition of Social Psychology

In the broadest sense of the term, social psychology, to which this book is devoted, is the science which investigates *the behavior and reactions of the individual with regard to his fellow men, whether as other individuals or as groups.* Shortly, we shall attempt a more precise definition of this science and see how it is related to certain other sciences, like sociology, anthropology, and political economy, which are generally also realized to be concerned with the relationships between humans. For the present, let us take some examples of the type of problem in which the social psychologist is interested and the type of answer he would give. Such examples ought to emphasize how important social psychology might be.

Examples of Social Psychological Problems.—There is need to economize on the pay roll of a certain factory. The boss fires Tom and keeps Harry. Here we are confronted with the problem of *the reactions of an individual to another individual,* which is one type of social-psychological problem. The social psychologist asks: "Why Tom and why not Harry?" Under certain conditions (which we will be interested in defining later) he is able to answer such questions. With an ideal science he would be able to predict that Tom would be fired and so give him warning or perhaps even prevent his taking the job in the first place. This would, of course, be highly advantageous to Tom.

Another problem. Dick and Peter had up until 1932 always voted the Republican ticket. Then in 1932 Peter suddenly changed his politics and voted the complete Socialist ticket. Here we have the problem of *an individual reacting to a group,* which is a second type of problem investigated by social psychologists. The social psychologist asks the question, "Why did Peter change his attitude towards a certain group (the Republicans) rather than Dick?" Or he may be interested in the comparative numbers of Dicks and Peters who will change their attitudes in similar situations. In the

ideal development of his science the social psychologist would again be able to predict that Peter would change, while Dick would not, or that the Socialist Party would gain a certain percentage of votes in a given election. That such predictions would have great advantages for the individual and the group goes without saying.

Another type of problem is *the reaction of a group of individuals to single individuals.* Between 1923 and 1932 the majority of Germans changed from considering Hitler a rather comical mountebank to considering him the savior of the German people. The social psychologist asks "Why?" and would like to predict the circumstances under which such wholesale changes of public opinion occur. For only one aspect of this situation, think how important it would have been to the Jews in Germany, if such predictions had been accurately made.

Finally, *groups of individuals react to other groups.* The American people as a whole had a rather high respect for the Germans in 1912, but they were trying to kill them as rapidly as possible in 1918. The employees of a manufacturing concern, under certain conditions, hope to rise to executive positions within the firm. Conditions change and one day the workers are out on strike and instead of admiring their employers, as they previously did, they hate them with such a hatred that sometimes even bloodshed ensues. What are the circumstances that condition such changes in the attitude of groups towards other groups? Would it not be of the utmost importance to be able to understand how such changes occur and by understanding them perhaps be able to avoid them?

Present Status of Scientific Social Psychology.—Social psychology, then, deals with the four classes of social events we have outlined above: the reactions of individuals to other individuals in social situations, the reactions of individuals to groups, of groups to individuals, and of groups to groups. At the present time the exact scientific solution to problems such as we have outlined is an impossibility. The social psychologist is but little more able than the layman to say when wars or industrial struggles will break out, or when Tom will be fired, or how long Hitler will remain in power. Up until about 1910 the world somehow got along without anyone to predict the when and the where of such social psychological events. Things have changed rapidly since then. Unless we are soon able to predict and control such events, it is very likely that the progress in modern civilization will cease and the promises made to us by our grand-

fathers of infinitely more progress will not be kept. Just what is social psychology capable of at the present time? What are the chances of developing it further? What are its relationships to the other sciences and the scientific method in general? This book will be concerned with these questions. Before we go on to these topics, however, let us impress upon ourselves how badly we need a science which will give us some insight into man's reactions and attitudes towards his fellow men. For without it, as we shall see, civilization itself is very apt to collapse.

2. The Need for a Social Psychology

Optimism of the Nineteenth Century.—The nineteenth century was a time of progress and promise. Industrialization raised the standard of living rapidly and by large amounts. At the dawn of the twentieth century there were still epidemics, there were still large elements of the industrial population living on a subsistence level or actually starving, there was still war. But advances had been made against all these evils and in some cases substantial ones too. Most intelligent and "right-thinking" persons saw further advances as bound to occur. The progress was not only economical. Illiteracy was being stamped out in the "advanced" countries of the world and the time was in sight where a certain level of education would be universal and compulsory. The applications of the physical sciences to the production of commodities and manufactures caused the greater abundance, the greater leisure for education, and created the necessary funds to support it. But besides the physical sciences, the biological as well seemed to be booming. This growing science represented promise for the future rather than immediate accomplishment. As physical science removed the necessity of economic hardship from the world, mankind would gain from the biological sciences the understanding necessary to improve the race biologically, socially, and spiritually. Truly here was promise.

The Pessimism of Today.—It is fifteen years since the end of the World War. The adherents of nineteenth-century optimism today are few in number. No one in his senses any longer thinks that the World War "ended all wars." New wars seem almost certain. There is a tense situation in the Far East, perhaps an even tenser one in Central Europe. Even a struggle between England and America or Japan and America is not out of the question. Not only is the international situation precarious, but the world is undergoing

the most serious financial depression of modern times. The people of America, as well as those of all other civilized countries except Russia, are entering into the sixth year of this depression, which is far more severe than those little periods of "hard times" which gave our fathers food for serious thought. It is as unnecessary as it would be trite to enlarge on the paradox which has been hammered into us from the pulpit, from the political platform, and from the liberal press, of surpluses rotting in warehouses while millions suffer from lack of life's simplest necessities. Not only have the economic foundations of modern civilization been shaken but the cultural foundations as well. Education which was gradually to have civilized the whole community is not spreading. All the sciences have undergone crises so that instead of being close to the scientific millennium we realize that we are very far from it. The biological sciences in particular have failed to make good the promises of 1900.

Our immediate times have been considered the dawn of a new era and they have been considered the death agony of Western culture. They have furnished, in the hands of different expositors, texts for unwarranted optimism as well as for hopeless pessimism. One thing has become increasingly clear. Our civilization will *not* remain just as it is. Either progress at a faster rate than our fathers dreamed of must come out of our times or these times must mark the end of peace, security, and bread, along with the end of those spiritual things which Western man holds dear. The conditions under which progress returns or under which it must for the present cease entirely may now be more clearly defined.

Postulates Underlying a Scientific Treatment of Modern Society. We must point out *first* that we are here attempting a *scientific* discussion of modern civilization; and science refuses point blank to consider the economic and cultural crisis as brought about in any way by supernatural or spiritual powers. We shall hence not consider any such arguments as that the present crisis is God's punishment to humanity for the cockiness of our fathers. We make the supposition that the crisis is brought about by forces of the earth, which potentially at least are subject to investigation by the scientific method. Although this may be quite obvious to the more enlightened reader it must still be stressed. Scarcely a week goes past without some "prophet" arising and attributing our woes to the "vengeance" of a neglected God or to our loss of interest in "spiritual values."

Secondly, we postulate that the crisis is not due to man's disability to produce goods fast enough to keep pace with the growth of the population or the needs of the people, but is due to failure of the system of economic distribution. The most striking fact about the progress of the nineteenth century was the industrialization of Western Europe and America on the basis of applying the physical sciences to problems of production. This increased ease of production affected not only manufactured goods but agricultural products and all raw materials. In the early years of the twentieth century this ease of production increased even more rapidly. It is commonplace information that the present economic crisis is largely due to overproduction under the limitations of the present system of economic distribution. Let us allow the eminent sociologist Ogburn(260)[1] to speak on this point. In his most recent article, "The Background of the New Deal" (after giving statistical data on the points mentioned), he states:

> There are four factors that contribute to a high standard of living: population, natural resources, inventions, and economic organization. . . . the increase of the population is less and less. It may thus be interpreted as a favorable factor, particularly since there is a drop in the employment of 40 per cent. . . . technological development is proceeding, although it takes some time for a patent to be put into extensive use. The amount of power produced, equivalent to about one hundred slaves per person, suggests abundant natural resources. Three of the factors seem to be favorable. *It is the fourth, economic organization, that has caused the degradation in our standard of living.* [From W. F. Ogburn, *Social Change and the New Deal*, University of Chicago Press, Chicago, 1934, pp. 6–7; italics ours.]

The relationship between population, natural resources, economic organization, and invention has been perhaps more precisely stated by W. G. Sumner and A. G. Keller(325), in *The Science of Society*, as the Law of Population. This law states: "Population tends to increase up to the limit of the supporting power of the land, on a given stage of the arts and for a given standard of living." One can express this functionally in the equation,

$$P = f\left(L, \frac{A}{S}\right)$$

[1] The parenthetical numerical references will be found in detail in the bibliography at the end of the book.

where P = population,
L = supporting power of the land,
S = standard of living,
A = stage of the arts.

It is easy to see that our present drop in S must be due to a great decrease in A since P is about constant and L certainly has increased. A, however, includes not only invention but economic distribution and organization. That is,

$$A = f(I,E),$$

where I = technological advance
E = efficiency of economic distribution.

It is commonplace knowledge that I has increased tremendously recently. Consequently E must be looked on as decreasing greatly. That I has increased has been shown very strikingly by the group called the Technocrats. The leader of this group, Howard Scott(300), recently made the claim that should all scientific potentialities be put to work and the product equally distributed, everyone in America could have a standard of living equal to that now measured by $20,000 per year with the expenditure of 4 man-hours work 3 days a week, or 12 man-hours work per week. Such a statement of course created a turmoil. Mr. Scott's figures were challenged and consensus of opinion seems to have been that Mr. Scott was an exaggerator at least, if not a prevaricator. The question of Mr. Scott's veracity clouded the issue for a while. But if we discount his claim 50 per cent with regard to both income and exertion and allow each American $10,000 for 24 hours work per week we see that such a state of affairs is Utopian. It was certainly a great service of the Technocrats to point out that the modern crisis was not due to the failure of science and engineering. Since Mr. Scott's estimates of potential plenty were made we have the more conservative estimates of Harold Loeb(215), who believes that under capacity production the average American family might have the standard of living measured today by about $4,370 per year. Even the very conservative estimates of the Brookings Institution(32) would allow a considerably higher standard of living than we now possess. The differences in these estimates are caused by different assumptions regarding the amount of reorganization in the economic system. Mr. Scott's estimates are on the basis of complete abolition of the present price system. Those of the

Brookings Institution are based on its unmodified continuance. But all these studies indicate that the failure of the promise of the nineteenth century lies most clearly in the failure of our system of economic distribution.

Thirdly, we postulate that the failure in the system of economic distribution is one which can be remedied only by a knowledge of social psychology. The literature by economists and sociologists on the present crisis is enormous and we shall refer to some of it in the bibliographical note appended to this chapter. There have been innumerable causes posited and innumerable cures suggested.[1]

Need of a Social Psychology.—What is important to note about these suggested cures is that they all depend in the final analysis on influencing men to change their attitudes towards social institu-

[1] For those readers who have not followed some at least of these economic writings we point out that among the many causes and cures suggested the following are the most worthy of discussion. (1) Psychological. The argument runs that nothing is basically wrong with the system but that entrepreneurs and bankers have lost confidence, and with the withdrawal of their support a system which is basically sound is forced to suffer. This type of explanation never had many serious supporters and today has probably none. It is generally realized today that the *crisis causes the loss of confidence rather than vice versa.* (2) Monetary. It has been suggested that the money system has not been adaptable to the modern means of production, distribution, etc. This is a very complicated problem and perhaps the most important with which economists have dealt in the last 20 years. That there are difficulties with money no one will deny, but here again it is becoming increasingly obvious that the *crisis is a cause rather than an effect of the monetary difficulties.* (Cf. the works cited of Keynes(171) and Strachey(321).) (3) Growth of tariffs and monopolization. It has been suggested that our difficulties are brought about by increased imperialism with high tariff barriers and other limitations to free trade. If one could go back to the free market of the eighteenth and early nineteenth centuries where the classical economic laws concerning supply, demand, and price would be able to function, our difficulties would be over. Plausible as this theory is, society acts as an organism and we can no more recreate the free market of the eighteenth century by realizing it was good and wishing for it than an old man can recreate his youth by simply wishing he were young again. (4) Lack of planning. This argument states that since tariffs and monopoly are here one should regulate them more thoroughly through state planning. It seems highly doubtful that this could be done satisfactorily and allow us to keep any of the advantages of free trade. These four arguments are the standard ones of those who hope to keep the basic structure of capitalism alive. Concerning those arguments which are basically opposed to capitalism we will have something to say later. It should be obvious however, that social psychological knowledge is prerequisite to monetary reform, return of confidence, return to free trade, or increased planning.

tions and practices. Undoubtedly if we knew exactly the factors causing men to act in groups as they do, if we knew how men will behave under certain conditions, if we knew *social psychology*, a Utopia might be created here on earth. It seems obvious that the future of world civilization depends on obtaining a knowledge of social psychology in order that the economic system which is failing us so miserably may be changed before it collapses. This idea has been admirably stated by C. D. Broad(31) in his book *The Mind and Its Place in Nature*. Broad ends his discussion of the future of mind as follows:

The beginnings of a genuine science of organisms exist, and progress in this science might at any moment become rapid. Supposing that Europe does not relapse into barbarism before America has emerged from it, it is quite possible that the next two hundred years may witness as great an advance in our knowledge of living matter as the last two hundred years witnessed in our knowledge of inorganic matter. But, so far as I can see, there are not even the beginnings of a scientific psychology of the individual or of communities. And, unless this defect can be remedied, there seems to be no hope either of devising a stable yet progressive social system or of making the vast alterations in men's minds which would be necessary before they could work such a system and live happily in it.

Now undoubtedly the greatest immediate threat to the further progress of the human mind is the *unequal development* of these three branches of knowledge; *i.e.*, the relatively high degree of our control over inorganic nature, combined with our still very rudimentary knowledge of biology and genetics, and with the complete absence of a scientific psychology and sociology. The first and least obvious danger of this state of affairs is that our environment and mode of life are changed deliberately, profoundly, and very quickly by the application of physical and chemical knowledge. The human organism has had no time to adapt itself spontaneously to these changes; for the spontaneous evolutionary adaptation of organisms is an extremely slow process. It therefore seems not unlikely that there is a great and growing disharmony between human organisms and their environment; and that, unless this can be corrected, the physical and mental qualities of the human race may degenerate. Now it cannot be corrected except by a *deliberate* modification of human organisms, which shall proceed as fast as the deliberate modification of their environment now proceeds. And this is possible only if we have a scientific knowledge of biology, physiology, and genetics comparable in extent and accuracy to our knowledge of physics and chemistry.

The more obvious danger of this unequal development of our knowledge lies in the fact that human control over inorganic nature provides men

with means of destroying life and property on a vast scale; whilst the present emotional make-up of men, and their extraordinarily crude and inept forms of social organization, make it only too likely that these means will be used. This danger, so far as I can see, could be averted only by deliberately altering the emotional constitution of mankind, and deliberately constructing more sensible forms of social organization. And it is quite useless to attempt the latter without the former. In order to do this a vast development of scientific psychology would be needed for two different reasons. In the first place, it would obviously be needed in order to know how to alter the emotional make-up of the individual. But this would not be enough. We might know how to do these things, and yet it might be quite impossible to get people to submit to having these things done to them. For this purpose we should need an enormous development of what Kant calls "the wholesome art of persuasion"; and this could arise only on the basis of a profound theoretical knowledge of the factors which produce, modify, and remove non-rational beliefs.

The conclusion of the whole matter seems to be that perpetual mental progress is certainly not logically impossible, and certainly not causally inevitable, in the sense of being bound to happen whatever we may do. On the other hand, there seems to be no positive reason to believe that it is causally impossible, in the sense that it is bound not to happen whatever we may do. So far as we are concerned, the possibility depends on our getting an adequate knowledge and control of life and mind before the combination of ignorance on these subjects with knowledge of physics and chemistry wrecks the whole social system. Which of the runners in this very interesting race will win, it is impossible to foretell. *But physics and death have a long start over psychology and life.* [From C. D. Broad, *The Mind and Its Place in Nature*, Harcourt, Brace & Company, New York, 1925, pp. 664–665; italics ours.]

3. The Hope in a Social Psychology

It follows then that Western civilization is very likely to end in chaos unless we obtain a better knowledge of social psychology than we now possess. The knowledge of events of nature, however, never means of necessity that man will immediately do what he can to control those events. The application of scientific knowledge follows its acquisition often only after long periods. Many discoverers have been put under ground before their discoveries have been put to work. Our next task is to discuss the possibility of applying social psychological facts, once we have them.

Magic, Religion, Science.—In order to do this we must define more clearly the aim of all science. We must discuss furthermore

the relationship between pure and applied science, for it is obvious that the knowledge of social psychology alone will do little to help humanity. Through the application of a science, as through the practice of a religion, or the indulgence in magic arts, man tries to make his existence less unpleasant than it would be without these things. Like magic and religion, science originates in man's desire for security, for peace, and for a feeling of his own dignity. Science then is one of the ways in which man tries to improve his lot here on earth. But when compared with magic and religion it is a very young thing indeed (except of course for some odd pieces of true scientific knowledge which man has always had). Physics as we understand it dates back only three hundred years, chemistry less than two hundred, biology and psychology less than one hundred. In fact it is questionable, as Broad has pointed out, whether we have a scientific biology at all as yet. Magic goes back to the time our ancestors first might be called men, and religion comes undoubtedly very shortly after magic. Of the course of all three Sir J. G. Frazer(111) in a very eloquent passage in *The Golden Bough* says:

Without dipping so far into the future, we may illustrate the course which thought has hitherto run by likening it to a web woven of three different threads—the black thread of magic, the red thread of religion, and the white thread of science, if under science we may include those simple truths, drawn from observation of nature, of which men in all ages have possessed a store. Could we then survey the web of thought from the beginning, we should probably perceive it to be at first a chequer of black and white, a patchwork of true and false notions, hardly tinged as yet by the red thread of religion. But carry your eye farther along the fabric and you will remark that, while the black and white chequer still runs through it, there rests on the middle portion of the web, where religion has entered most deeply into its texture, a dark crimson stain, which shades off insensibly into a lighter tint as the white thread of science is woven more and more into the tissue. To a web thus chequered and stained, thus shot with threads of diverse hues, but gradually changing colour the farther it is unrolled, the state of modern thought, with all its divergent aims and conflicting tendencies, may be compared. Will the great movement which for centuries has been slowly altering the complexion of thought be continued in the near future? or will a reaction set in which may arrest progress and even undo much that has been done? To keep up our parable, what will be the colour of the web which the Fates are now weaving on the humming loom of time? will it be white or red? We cannot tell. A faint glimmering light illumines the backward portion of the web. Clouds and

thick darkness hide the other end. [From Sir J. G. Frazer, *The Golden Bough*, The Macmillan Company, New York, 1925, pp. 713–714.]

In separating magic, science, and religion it seems to me that Frazer has done a wise and necessary thing. It is our debt to the social anthropologists that we realize that all three originated as an answer to a common need of man, that all three are concerned with the betterment of humanity. Throughout the far past organized religion and natural science had been avowed enemies. More recently the view taken was that they are concerned with mutually exclusive domains. Most recently, among the clergy at large and even among certain scientists, the viewpoint has been furthered that science and religion support one another. I believe there is a serious antithesis between science and religion and that any attempt to minimize this antithesis leads to little more than confusion. Science, magic, and religion are to be sharply differentiated in that the role which man assigns to himself in his attempt to make life more bearable is with each one very different. In using magic man attempts to placate supernatural powers which are not subject to natural law, by pleasing them with offerings and by studying their characteristics so that he may influence them. The practitioner of magic admits forces and powers not of the earth, but hopes at least to be able to study them and gain some control over them. In this aspect magic is nearer science than is religion. The follower of high religion admits the supernatural, but remains passive to the will of his god or his gods. He may attempt to influence God's choice by prayer and by wish, but he never believes that he, a poor mortal, can discover formulas which will change God's infinite wisdom. Religion without a belief in the supernatural is an attempt at science without affirming the positive in science. Science differs from both magic and religion in that it categorically denies the existence of any forces outside man's potential control, outside man's possible experience. This *basic* difference between science and magic-religion is so essential that any attempt to minimize or deny it seems to me nonsensical. To put it crudely, religion asserts that at least some of the events of nature are under the control of God, while science denies this. It must be the aim of the scientist to make science grow to the extent that the province of religion in man's everyday affairs will become practically nil. It is the cornerstone of the true scientist's credo that science, going her own way, may alleviate man's suffering and

better his position without recourse to either prayers or hocus-pocus. Science affirms that through its method man may create Utopia here on earth, here and now, without any reference to the hereafter. If we look at the triumphs of certain sciences—physics and chemistry, or bacteriology—this idea is at least plausible. And these triumphs came from the application of the scientific method and not from the dogmas of the theologians. There can be no doubt that science started as a rival of religion and magic as a means of bettering mankind. There can be small doubt that in achieving its aim science has been more efficient. Hence science and religion not only have nothing in common but they are also mutually exclusive ways of viewing the world. The history of Galileo and the Inquisition is known to us all. The average intelligent man of today is inclined to believe that this type of thing could not happen under his own eyes. Now there are very good reasons, as we shall see, for considering Sigmund Freud the major psychological thinker of modern times and Karl Marx certainly a major economist. Both of them are continually being damned from the pulpit today. No, science and religion are not friends, they are rather enemies. In order to hope for a social psychology we should be clear on this point. Science denies and attacks supernaturalism.

Science and Metaphysics.—As a corollary of this, science affirms the reality of the outside world. Contrary to some recent theoretical views, scientists have practically always been materialists. They say that nature as investigated by them is real, has real existence. Philosophically nature may be an "idea in the mind of God" or "pure experience" or "sets of sensations" or any number of other things which philosophers have called it. Scientifically we must postulate the existence of a real, material world subject to natural laws which may be discovered by the scientific method. The great triumphs of natural science have been made independently of the philosophers. It is important to point out that Ernst Mach, a physicist who spent his life trying to prove that the world was a bundle of sensations, never made one important physical discovery and Immanuel Kant, who has influenced philosophical thinking more than anyone since Aristotle, neither helped nor hindered the development of nineteenth-century physics. Science, besides denying the supernatural, affirms the reality of the outside world, affirms the reality of nature. It is important to make these points now because the application of a scientific social psychology will undoubt-

edly meet resistance from adherents of certain religious and philosophical beliefs.[1]

Difficulties in the Scientific Method.—But science meets difficulties in application due to the nature of the scientific method itself which are almost insurmountable. Even if all men everywhere were freed from their religious beliefs and their philosophical prejudices against science, progress would be slow. It would of course be immeasurably more rapid than it is now, but to make science requires patience, honesty, and, what is perhaps even more important, a great deal of highly specialized training. We must consider to what extent we could apply social psychology if the world were handed over to the scientists, among them the social psychologists. Science's justification lies in its ability to control and predict the events of nature. Even in the physical sciences very small beginnings have been made along these lines. In his book, *Scientific Method*, Ritchie(283) says:

> It is only as the result of the century-long labours of the wisest of men that anything much has been discovered, and that as the result of countless mistakes and false starts. Even when we know what the laws of nature are, it is not such an easy business to observe their correctness in any instance, but it needs special training and special means to carry out the observations.
>
> The fact that the regions of nature actually covered by known laws are few and fragmentary is concealed by the natural tendency to crowd our experience into those particular regions and to leave the others to themselves. We seek out those parts that are known and familiar and avoid those that are unknown and unfamiliar. This is simply what is called "Applied Science."
>
> That our knowledge only illuminates a small corner of the Universe, that it is incomplete, approximate, tentative and merely probable, need not

[1] The temptation is great to enlarge on this theme and give many examples of how adherence to religious doctrines or philosophical systems has held up the application of the scientific method. The Inquisition was repeated on a smaller scale against the relativity physics and the Gestalt psychology. Both were considered not only not true and not new but in some hands practically immoral Furthermore, the reasons for the attack on Gestalt psychology, as will become clear in the course of this book, were not only philosophical but social-psychologically conditioned. Religion and philosophy (by this we mean metaphysical systems, not critical philosophy or philosophy of science) rather than matters of indifference to science are of the greatest importance and may seriously block scientific progress.

disconcert us. It is genuine nevertheless. Physical science stands as one of the great achievements of the human spirit. [From A. D. Ritchie, *Scientific Method*, Harcourt, Brace & Company, New York, 1923, pp. 201–202.]

If the difficulties in the physical sciences are great, those in the biological sciences are even greater. The scientific method is the subject matter of the next chapters. At this point we shall simply outline several particular difficulties which beset the biological scientist. To control nature one must make predictions. The biological scientist may make predictions only with a very great amount of error at the present time. He may say this event will happen sooner than that, but only very rarely how much sooner. Or he may say, this event is more probable, more likely to occur than that event. Only rarely however is he able to say that the chances are 99 out of 100 that this event will occur.

To make predictions one must usually be able to manipulate the forces of nature. We may manipulate social forces only under a very few conditions. The physicist is able to hold many forces in the physical laboratory constant. For instance when he is investigating the freezing point of a liquid, he may completely control, *i.e.*, hold constant, the volume and pressure of the liquid. The social psychologist, in investigating the crystallization of public opinion of one group against another, say strikers against their employers, can scarcely control the groups with regard to such factors as intelligence and temper to say nothing of keeping outside influences—the press, the church, and related groups—out of the experimental situation.

We shall meet many such difficulties throughout our work. The hope in a social psychology then lies in its applicability. Not only do religious beliefs and adherence to philosophical systems hold up the application of science, but the scientific method itself is applicable to only a limited number of situations under very specialized conditions. These limitations are particularly great in the biological sciences. But despite all these limitations the only way in which society may avoid chaos is in learning social psychology and then applying it.

We shall next attempt to show the relation of social psychology to the other sciences, and we shall then move on to a more detailed discussion of social psychology proper.

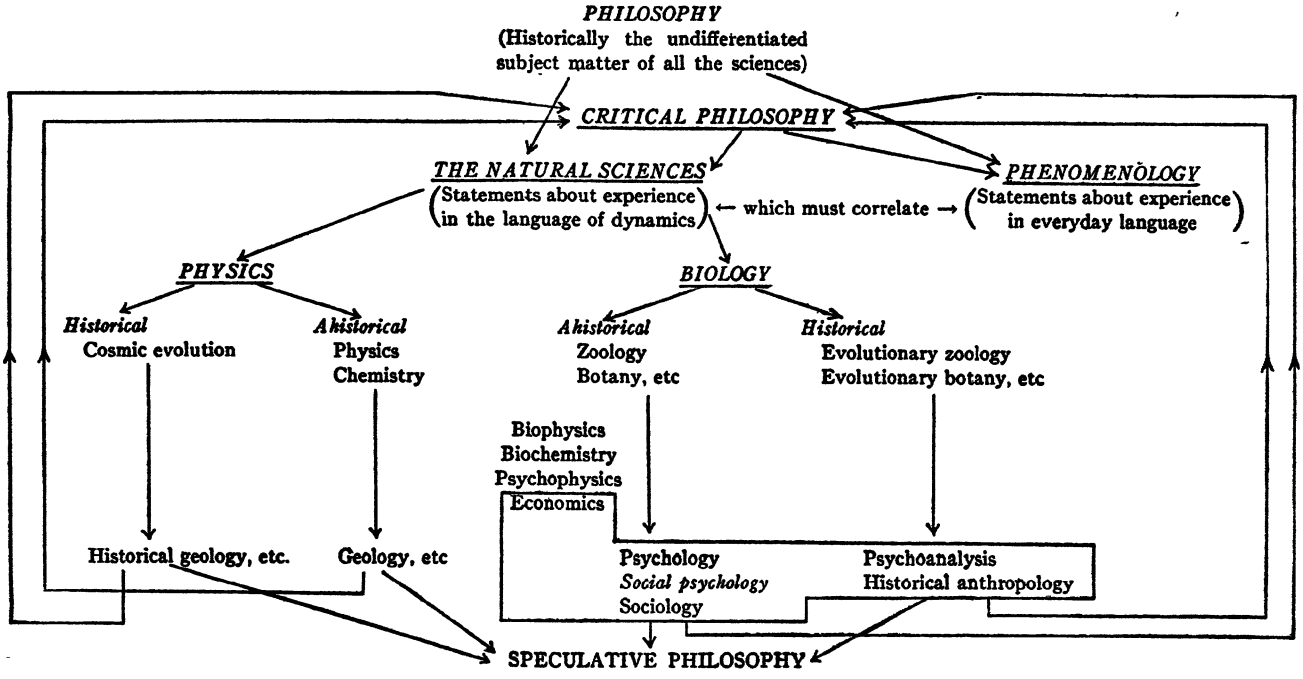
4. Social Psychology in Relation to the Other Sciences

Science Defined.—Science in its entirety is the organized body of knowledge concerning the events of nature which humanity has acquired throughout its history. All facts about the relationship of natural events, the necessary consequences of given states of nature, or the certain antecedents of existing states of nature belong to science. By nature and the natural we refer to the real world about us, which is given to us through our sense organs and which is consequently subject to verification by others reporting observations identical with our own. Scientific facts are those to which competent observers give universal assent. That freely falling bodies accelerate their speed, or that at sea level water boils when an accurate thermometer registers 100°C., or that children cry out when startled by a sudden loud noise, or that prices fall when supply exceeds demand, or that freedom of speech is curtailed in war, are hence scientific facts. That "God's in his Heaven, all's right with the world," or that "Beethoven is a greater composer than Wagner," or that "the world is an idea existent only in my mind," obviously are not.

The Division of the Sciences.—Naturally no modern can master all of science, and a division of labor among sciences is necessitated. There are hence many so-called individual sciences, which vary decidedly in their completeness, systematization, and ability to explain, predict, and control. Underlying all the sciences, however, is a common form of methodology (which will be the subject matter of the next chapters) and they all have a common goal, that of prediction and control of natural events in the service of mankind. (It would be perhaps better to say that science should be in the service of mankind.) Now just where should the science we are about to discuss be placed with reference to the other sciences?

Table 1 indicates where social psychology falls in the scheme of science. Several points about the scheme need elucidation. The diagram begins with philosophy and ends with it. This means that individually the sciences have differentiated historically from mankind's general experience and observations, called by the ancients philosophy. The scheme ends again in philosophy, this time speculative philosophy to indicate that one must use the information gleaned from the individual sciences to make generalized statements about the world. Speculative philosophy is interesting and fascinating but we shall have no more to say about it here. It usually ends

TABLE 1


PHILOSOPHY
(Historically the undifferentiated subject matter of all the sciences)
CRITICAL PHILOSOPHY
THE NATURAL SCIENCES
(Statements about experience in the language of dynamics)
← which must correlate →
PHENOMENOLOGY
(Statements about experience in everyday language)
PHYSICS
BIOLOGY
Historical
Cosmic evolution
Ahistorical
Physics
Chemistry
Ahistorical
Zoology
Botany, etc
Historical
Evolutionary zoology
Evolutionary botany, etc
Biophysics
Biochemistry
Psychophysics
Economics
Historical geology, etc.
Geology, etc
Psychology
Social psychology
Sociology
Psychoanalysis
Historical anthropology
SPECULATIVE PHILOSOPHY

in quite unverifiable statements, about the world-all or God, or the nature of beauty, or the "deeper meaning of things" or "the essence of nothing." Another type of philosophy (this time critical philosophy) is indicated, however, before the individual sciences. From the study of the *status quo* of the individual sciences, from examining what type of method has led to success in them and what has led to sterility and failure, one sets up the postulates of critical philosophy or general scientific methodology. Concerning this type of philosophy we shall have much to say; in fact, the next three chapters will be almost completely devoted to it.

Phenomenology and the Natural Sciences.—We next divide all science into two great categories, the phenomenological and the natural sciences. The phenomenological sciences are concerned with pure description in the language of every day. Naturally all science must start with such description. One says, "I see a red automobile, which smells of gasoline and which I should like to have." This is a phenomenological scientific description (*i.e.*, it is scientific, if it is accurate). Now if the scientist did no more than this he would not be in any way different from a novelist or for that matter from any adult, who has learned to observe events accurately, and to use language precisely. The scientist, however, abstracts certain characteristics of the events which he sees, and orders them to certain logical constructs. For the present let us take the above statement and put it into the language of natural science. It would read: "In my visual field there is a configuration, caused by light waves; in my olfactory field there is a certain sensation caused by a particular structure; and in my psychological activity field there is a vector towards a certain goal." This may strike the beginner as being a very clumsy way of saying a very obvious thing. It is much more than that, as we shall see shortly. The phenomenological sciences are prerequisite to the natural sciences, but we shall not have much more to say about them.

The Physical and Biological Sciences.—The natural sciences fall in two great groups, the physical and the biological. Physics is concerned with the sequence of natural events where the objects concerned are inanimate. Here we find such sciences as chemistry and geology. Furthermore the physical sciences are concerned with two general branches, the historical and ahistorical. The historical branches such as cosmic evolution and historical geology are concerned with natural events which depend on historical sequences.

The ahistorical sciences like physics proper and chemistry are concerned with the natural events independent of their past history.

Between the physical and the biological sciences fall certain sciences like psychophysics, which is concerned with the correlations between happenings in the physical world and those in consciousness, and economics, which is concerned with the behavior of man in producing and distributing material goods and services. All these sciences use facts from both the physical and the biological sciences and hence fall between them.

Definition of Social Psychology.—Social psychology falls in the ahistorical biological series between psychology and sociology. Psychology may be defined as the science which studies the integrated and goal-directed behavior of organisms. Sociology studies the behavior of social groups. Social psychology is the meeting place of these two sciences. It is concerned with the effects of sociological laws on psychology and of psychological laws on sociology. In other words it is concerned with the effect of the group on the behavior of the individual and that of the individual on the behavior of the group. Later we shall see that these two problems may not be separated except for classificatory convenience. Consequently social psychology draws of necessity on the facts of both psychology and sociology. In addition to this it is closely related to psychoanalysis, social anthropology, and economics. In the diagram we have indicated this relationship by including all these sciences within a line. These sciences together might be called one great science of human interactionology or of human relationships. In the present work we shall draw on all of them rather indiscriminately. Some readers will probably accuse the author of having an economical, sociological, or some other bias, and of neglecting social psychology proper. Today social psychology can be written only with constant reference to these other sciences. The sociological and psychological facts necessary to understand the argument of this book will be given as needed. The readers without knowledge of social anthropology, psychoanalysis, and economics are asked never to lose track of the few following basic ideas, which will be taken as granted in the argument which follows.

Sciences Closely Related to Social Psychology.—From social anthropology, which studies the adjustments of man to his culture, we learn the undisputed fact of the evolution of culture and social institutions. No social institution (marriage, property, religion,

etc.) is today as it was in the past. There are very good reasons for believing that these institutions will continue to change in the future. This recognition of the change of social institutions was one of the greatest discoveries of the nineteenth century, as is generally admitted today. Concerning the causation of these changes and their rate, there is still much speculation. But that change occurs is verified.

From economics, which is concerned with the production and consumption of wealth, we learn that we live under a capitalist system. The capitalist system is a system in which the means of production are privately owned, in which distribution occurs according to the market (economic laws of supply and demand), and in which labor power is itself a commodity which is utilized according to the motives of the market. Capitalism differs from feudalism, which preceded it, in that labor became an independent commodity under it and from communism, which has succeeded it in Russia, in that under communism the state owns the means of production and the distribution occurs according to a strictly planned economy. The more detailed economic facts will be presented as we need them.

Finally from psychoanalysis, which investigates the dynamics of the past and present mental life of the individual, we learn that the individual's past sexual and emotional experiences are of the greatest importance for his present psychological activity. This we shall see is of the greatest importance for problems such as that of leadership.

5. Summary

1. We began by provisionally defining social psychology as the science which deals with the why and the wherefore of the individual's reactions to his fellow men. After giving some examples to show its possible importance, we pointed out in detail how essential it is today for us to know something more about it.

2. The widespread belief of the nineteenth century in inevitable progress has proven itself untenable. The present crisis represents no failure of man's knowledge of inorganic nature nor lack of his ability to control it. Man is in a position to extract much more from nature than he does. Chaos or at least a period of chaos seems inevitable unless we learn more about social psychology.

3. Learning social psychology will avail little unless we apply it. To apply science requires the ability to predict and control, which social psychology at the present scarcely possesses. But even

toward those things which we might control there is opposition from religion and certain philosophies.

4. We next discussed the position of social psychology in the hierarchy of the sciences. Social psychology as a science is placed in the biological ahistorical series between sociology and psychology. It was defined as the science of the conscious behavior of individuals towards other individuals and groups. Social anthropology, economics, and psychoanalysis are so closely related to social psychology that in our treatment of this science we shall draw on them constantly.

Bibliographical Note

In this and the succeeding chapters we shall give the chief sources on which the argument is based. The numerical references behind each name are to the bibliography at the end of the book, where the exact titles may be found. These bibliographical notes make no pretense at completeness and contain only works of which the author has firsthand knowledge.

In a brief article Cantril(49) gives most of the definitions various writers have made of social psychology. We shall return to this problem frequently with further references in the next chapters. Concerning the need for a social psychology, see J. Dewey(79) and the book of C. D. Broad(31), from which we quoted. There is such a tremendous quantity of literature now on the present economic and cultural crisis that it is hard to know what to recommend. Particularly good are the following: Strachey(321, 319), Dutt(90), Cole and Cole(63, 64). We shall have much more in detail to say about certain basic theories of the crisis in Section IV. The limitations on hope in a social psychology will be treated in more detail and with more references in the next chapters. Concerning our ideas of the relationships between the sciences see Lewin(201, 202), Carnap(52, 53), Feigl(105), and Brown(39). Readers without any training in economics might read Marshall(228) and Strachey(321). For cultural anthropology see Sumner and Keller(325); for psychoanalysis see Healy, Bronner, and Bowers(134) and Hendrick(141).

CHAPTER II

TWO PHILOSOPHIES OF BIOLOGY

1. Atomistic-mechanism, Vitalism, and the Organismic Viewpoint

We have just seen that social psychology is a specialized branch of the biological sciences. We have also indicated that the facts of the individual sciences lead to a critical philosophy of science, which in turn influences further research or fact gathering within the sciences proper. Now it is typical of philosophy that we seldom use it in the singular but speak rather of different *philosophies*. If the individual sciences were so thoroughly developed that there was complete harmony between their facts and the interpretation of these facts there would be no need for even one critical philosophy, let alone several. Even speculative philosophy might disappear under such circumstances. But as we have pointed out even the physical sciences are very incomplete, and some critics like Broad refuse to call the biological and social sciences, sciences at all. We do not share Broad's pessimism regarding the complete lack of a scientific psychology and sociology. We are, however, quite willing to admit that the biological sciences are still in need of the services of critical philosophy. So we must introduce the two critical philosophies of biology which are worthy of credence today. This is particularly important because the relationship between critical philosophy and science is a circular one. We emphasize: *The facts of our science influence our philosophy, which in turn influences the interpretation we give our facts.*

Critical Philosophies of Biology.—By critical philosophies of biology we mean the basic postulates underlying the various theories and "isms" of the biological sciences. No matter how many theories a biological science may have, no matter how great the superficial variations and antitheses between these theories may be, there remain only two or three really basically different sets of postulates concerning the order of biological nature. If one considers the book *Psychologies of* 1930(248), one might conclude that there are many different "theories" of psychology. One might be

inclined to attribute an even greater number to sociology after finishing Sorokin's book *Contemporary Sociological Theories*(308). Now it is not our claim that there are no differences at all between the various psychological and sociological theories. But it is our claim that contemporary biological and sociological theories alike are variations on two sets of basic postulates, those of atomistic-mechanism and those of organismic theory. Both of these themes are worthy of scientific consideration. There is a third theme, which is not worthy of consideration, called vitalism. We shall next discuss these biological philosophies. Then we shall indicate which one promises the most for social psychology.

The philosophy of atomistic-mechanism was the most widely held by reputable men of science until fairly recently. Its rival was vitalism. Let us first consider these two together before developing the postulates of the newer organismic viewpoint.

Atomistic-mechanism and Vitalism.—*The philosophy of atomistic-mechanism accepts either explicitly or implicitly as its first basic postulate that the biological organism is a machine.* The various parts of the organism function like the parts of a machine. The automobile fails to run and the trouble is located in the ignition. A human is unable to move his arm; there must be something wrong with certain nerves or muscles. The question arises, how does the human machine become assembled? This question the atomistic-mechanist is unable to answer. At least he is unable to answer it in terms of science. If he raises the question at all, he meets it by saying, "Concerning organization we as yet know very little, but by sticking to our guns we shall some day learn more. Science cannot answer the question as yet." Thus the physiologist taking this viewpoint passes the problem of organization back to the geneticist, the geneticist to the theoretician of evolution. But it remains unsolved. Scientifically, this is a healthy viewpoint. But we must remember that this is now the third generation of scientists thus to "pass the buck" and we are still no nearer a solution. As a matter of fact, we seem rather farther from a solution than we were in the nineteenth century.

Certain scientists, starting in the mechanistic tradition, accepting mechanism up to the problem of organization, have grown impatient with this answer. They are the vitalists. What they have done is say, "*Man is a machine, to be sure, but he is also more than a machine.*" He has a soul, or an *élan vital*, or an entelechy, or

purpose, or whatever the vitalist in question wishes to call his organizing agent, which runs the machine.[1] A few years ago it was customary to see in the antithesis between vitalism and mechanism a real struggle over basic principles. Actually the vitalist and mechanist have always agreed about everything except organization. The vitalist only challenges the mechanist on those problems which the mechanist claims he is not yet ready to handle. Concerning this point the mechanist is scientifically in the right; souls, *élans vitaux*, and entelechies are scientifically worthless concepts. One cannot measure them, one cannot control them, one cannot lay hands on them. They may well upset the scientist's complete calculations and reverse his predictions. If one clearly thinks through the implications of such constructs freedom of the will becomes implied. Now there may be freedom of the will, but science must deny it categorically.

Let us suppose that psychology becomes so advanced that we can measure and predict certain aspects of human behavior. Let us further suppose that John Jones, who is a senior in college, has taken the premedic course, is ready to enter the medical school, and is having a love affair with Mary Smith. All our measurements make us predict that John will break off the affair with Mary in order to pursue his career. If there is freedom of the will, the will may step in at this point and completely upset our predictions. He may marry the girl and fail to go on with his medical work. Any vitalistic force which lies outside the possibility of investigation in the laboratory may so upset our predictions. It is implicit in vitalistic thinking that there should be indeterminism. Vitalism is hence nothing but atomistic-mechanism, plus some causally unverifiable and hence scientifically worthless concept. Finally, then, the much disputed difference between mechanism and vitalism hangs around the point of organization. The mechanist says, we shall explain it later, the vitalist attempts to explain it in an entirely spurious fashion.

The next postulate to be discussed concerns the relationship of wholes and parts.[2] The atomistic-mechanist says that *the action*

[1] Soul is the vitalistic force of the theologian and scarcely a scientific concept. Methodologically the *élan vital* of the French philosopher Bergson, Aristotle's entelechy, and the modern psychologist's hormé or purpose all play the same role.

[2] The whole-part problem is so important in modern psychology that we shall have to refer to it again and again. Consequently readers who are meeting the

of the whole is to be explained out of the working of the parts; that the whole is equal to the sum of its parts; that the parts come first in nature. The vitalist accepts the explanation of the mechanist but he adds: *the parts are organized by the élan vital* (or whatever this force is called by this particular vitalist). Here again the vitalist and mechanist are in agreement up to the question of organization. Thus the modern psychological theory of the reflexologists and behaviorists, who are the chief atomistic-mechanists, is that coordinated behavior like piano playing or swimming is to be explained as built up of reflexes so that the integrated act is simply the equivalent of the sum of the individual reflexes.[1] Similarly the reflexes should from this view occur first in ontogenetic development. The vitalists accept this description as good so far as it goes. In order to explain the integration of these reflexes into the complicated behavior patterns, they posit the existence of an integrating force. Thus, once again, the atomistic-mechanist fails to answer the problem of organization, the vitalist answers it in a scientifically unacceptable fashion.

The problem of what constitutes an analysis of a biological event is important. For the atomistic-mechanist *the isolation of the parts and the studying of their interrelationships becomes the purpose of science.* This type of analysis is primarily concerned with what scientists call "structure" and only secondarily concerned with what they call "function." When we attempt to answer the question, "What is a thing made of?" we are making a structural analysis. When we attempt to answer the question, "How does a thing behave?" we are making a functional analysis. This distinction will become much clearer shortly. Structural analysis makes use of concepts that are primarily concerned with "class," and only secondarily concerned with relationships. This distinction will also become clearer in the course of this chapter. The vitalist agrees with the validity of the mechanist's structural analysis; but, he adds, "Humpty Dumpty must be put together again. These factors work just as you say they do, but the parts are always

problem for the first time are asked to be patient until the end of this series of chapters (through V), by which time the whole-part problem will have been thoroughly discussed in all its aspects.

[1] A reflex is the simplest form of reaction to a stimulus, such as the contraction of the pupil of the eye to the stimulus of light, the extension of the leg to the stimulus of a blow on the patellar tendon, etc.

organized under the direction of the vitalistic force." The difference with regard to the type of scientific analysis, then, between the vitalistic and the mechanistic is also only the difference between the lack of or the presence of the vitalistic force.

The atomistic-mechanist sees *all sciences as derived or at least derivable from the mathematical-physical sciences.* It is true that no mechanist ever even attempted actually to reduce biological problems to physics, but he always worked toward the goal of such a possibility. The vitalist wishes also to reduce much of biology to physics but believes a complete reduction impossible because of the "plus." "*You will never,*" says the vitalist, "*be able to reduce human biology to physics because the living organism is more than a machine.*"

Now it must be said that those advances which biological science made in the nineteenth century were primarily due to the mechanists. Although individual vitalists have made discoveries of importance, the doctrine of vitalism has in no way furthered biological knowledge. Hence we refuse to consider vitalism in any of its forms as a respectable scientific philosophy of biology.

The mechanist has always, then, tried to relate his biological method to that of physics. The triumphs of the physical sciences in the nineteenth century were so great that every biological scientist envied the physicist and tried to copy him. He believed that if biology could follow the method of physics, it might even become in its applications as great a boon to humanity as physics undoubtedly is. Here without attempting any discussion of modern philosophies of physics we must point out that the physics which the mechanist tries to follow is not the physics of today.

The Organismic Viewpoint.—More recently there has developed another philosophy of biology which we shall call the organismic.[1] It has basically different postulates from vitalism and atomistic-mechanism. The first runs: *The organism is to be looked upon as a system of energy rather than a machine.* It is true that machines are systems of energy, but *not all systems of energy are machines.* Machines are only found in nature where an intelligent organism has planned and executed them. In other words, automobiles or printing presses are not found growing on trees. Events of nature, on the other hand, like falling bodies or storms or human behavior,

[1] It has also been called the field-theoretical, the configurational, the Gestalt theoretical.

show a much greater dynamic fluidity than machines. We suppose that events of nature occurred before there was any intelligent organism in the cosmos. Mechanism thought through to its logical conclusions must always come to the problem of who planned the machine. Systems of energy on the contrary may be looked upon as always existent and as evolving quite independently of any inventor or engineer. By considering the biological organism as such a system of energy we get away from one of the very decided difficulties of both atomistic-mechanism and vitalism. We postulate simply that energy exists in organized systems and that man is one of these. This postulate may on first acquaintance seem to lack the precision of the machine concept. If it does it is simply because our everyday thinking implicitly supposes that the whole is made up of the sum of the parts and that we do function like machines. There is no a priori reason why nature should be either organized or disorganized in its pristine state. That there is originally organization in nature is a postulate which may be scientifically investigated.

Regarding the relationship between wholes and parts, the organismic philosophy says that *the whole is more than the sum of its parts.* On first acquaintance this statement looks like vitalism. Indeed it is quite unfortunate that it was ever made without more precise definition of wholes and parts. Since it has been made and since it has become almost a battle cry for the organicists in their attack on both the vitalists and mechanists, we must hold to it. By it we do not mean that the whole is the sum of its parts *plus* "something or other," like the vitalistic forces. We mean that the whole includes the parts. We mean that nature exists in the form of structured fields, and the structure or arrangement or pattern determines the activity of the individual part. In other words the whole is not to be deduced from the parts, nor does part work on part to make the whole, but what occurs at any given position within the whole is determined by the structure of the whole. In the organismic philosophy there is no such thing as local determination. Nothing is controlled alone at a given position in time and space. The existing structure of the field determines the local event rather than the local event's determining the existing structure of the field.[1] As we shall see, the whole trend of modern science is away from the idea of local determination.

[1] Many examples of this viewpoint will be given shortly.

Concerning the type of scientific analysis used, there is also a definite difference between organismic philosophy and atomistic-mechanism. Since the field structure determines the individual event within the field, the analysis used by theories based on the organismic philosophy is *primarily functional.* In this particular

TABLE 2

VITALISM	ATOMISTIC-MECHANISM	ORGANISMIC THEORY
1. Man is a machine *plus* an *élan vital*, entelechy, soul.	1. Man is a machine.	1. Man is a system of energy.
	Antithesis Underlying Viewpoints	
	Machines are systems of energy but not all systems of energy show the properties of machines. A machine requires an engineer. Atomistic-mechanism meets this problem with scientific agnosticism. Vitalism meets it with the *plus*. Organismic theory does not have to meet it.	
2. The whole is equal to its parts *plus* the vitalistic force.	2. The whole is equal to the sum of its parts. (Parts exist first. There is local determination.)	2. Whole is more than its parts. (Wholes exist first. There is no local determination.)
	Antithesis Underlying Viewpoints	
	Atomistic-mechanists say causation must be from part to part to whole. Vitalists say causation is from part to part to whole under direction of the vitalistic force. Organismic theory says causation is from whole to parts.	
3. The analysis is primarily structural-substantial, *plus*.	3. Analysis primarily structural-substantial.	3. Analysis primarily functional-relational.
	Antithesis Underlying Viewpoints	
	Since there is no local determination in organismic theory analysis is possible only through variation of the conditions under which an event occurs. Since there is local determination in atomistic-mechanistic theory substantial analysis is common.	
4. Biology *cannot* be reduced to physics.	4. Biology *must* be reduced to physics.	4. Both physics and biology are amenable to the propositions of the logic of dynamics.
	Antithesis Underlying Viewpoints	
	Here there is more agreement between atomistic-mechanism and organismic theory than there is between either of these and vitalism. Organismic theory is in much better agreement with contemporary physics than atomistic-mechanism.	

point modern physics is nearer organismic biology than it is to either atomistic-mechanism or vitalism.

Finally, an organismic theory of biology also attempts to relate biology to the other sciences. It holds that there is no basic difference between physical problems and biological problems. But rather than attempt to deduce biology from physics, it attempts to treat both physical and biological problems according to the logic of dynamics. The only difference between a biological problem and a physical problem lies in the structure and type of the respective fields. On the surface biological fields have a more complicated structure than physical fields and consequently exact prediction in biology is considerably more difficult than it is in physics. The hope of the method, however, is that with increasing refinement of the possibilities of analysis we shall have increasing exactness in control and prediction.

It may help the reader to have by him in tabular form the conclusions we have come to regarding the basic postulates of these three philosophies of biology. If the reader readily understands the points made in the chart, Table 2, he has grasped the essentials of the critique to this point.

For reasons which will become clear in this chapter we consider the organismic philosophy the most suitable on which to base a social psychology. So far we have spoken chiefly of the various basic postulates underlying these philosophies. In modern psychology the adherents of atomistic-mechanism are the behaviorists and the reflexologists. The purposivist psychologists like McDougall adhere (although sometimes in a disguised form) to vitalism. The Gestalt psychologists accept the postulates of organismic theory. In social psychology the vitalist viewpoint has been most widely accepted by the sociologically minded writers and the atomistic-mechanistic by the psychologically minded. More detailed examples of this will be given in the next chapters.

2. The Inductive, Deductive, and Hypothetico-deductive Methods

Induction versus Deduction.—There is a close relationship between the philosophy of biology which an individual scientist adopts and the method of gathering his scientific data. In the most elementary textbooks on logic or the scientific method one distinguishes between induction and deduction as means of arriving at scientific proof.

Deduction is the process whereby one discovers all the logically consistent implications of a given set of postulates or axioms. Popularly, in deduction, one extracts from a generalization all its specific implications. The method has proven itself very valuable in the mathematical sciences and a standard example of deduction is the Euclidean geometry. The various Euclidean theorems are found to be implied in the definitions and axioms. Deduction is a sound method provided the original postulates from which the deductions are made are meaningful. Deductive procedures fell into disrepute with most natural scientists during the last centuries, however, because the sterile science of the Middle Ages had been largely deductive on the faulty postulates of Aristotle and the church fathers.

By logical induction[1] is usually meant the process of establishing a generalization by showing that it applies to every instance which it is said to include. Thus the initial proposition of the standard syllogism, "All men are mortal," is a generalization gained by induction. Induction in science, however, is usually supposed to be the technique by which certain properties of nature are enumerated and shown by experiment to be general for the class in question. Thus in the older treatises on the scientific method, the natural sciences as opposed to mathematics are supposed to be inductive. The nineteenth-century biologist was proud of the fact that he was an empiricist and that he worked by induction. He even thought he was copying the physical method by so doing.[2] More recent methodological studies have shown us that important scientific discoveries are never made by pure induction. The true method of science is rather the hypothetico-deductive method. Let us contrast the steps in these two methods.

In the inductive method the following steps were supposedly taken in the following order: (1) one measured, for instance the pressures and volumes of a gas; (2) one found correlation between the events measured (that P and V varied inversely); and (3) if the correlations were of a high order, one had discovered laws, ($PV = C$); (4) then, as necessary, one related these laws under theories (the kinetic gas

[1] Induction has meant several things. We have simplified the problem considerably; *cf.* Stebbing(316). Appendix A deals with the problem of method at a more advanced level.

[2] This was important, for the triumphs of physics were very great in the nineteenth century.

theory). But these theories were useful only to relate laws and were hence to be looked upon as the end step in the scientific process.

The Hypothetico-deductive Method.—In the hypothetico-deductive method, one must, to be sure, start with experience; but before one can measure, one must have a "hunch" as to what the possible laws of experience may be. It may be shown, although this seems very paradoxical at first, that *the measuring instrument results from the law rather than the law from the measuring instrument.* The steps in the hypothetico-deductive method become: (1) one gets a hunch about nature; (2) this hunch is formulated into a working hypothesis (*i.e.*, law); (3) the law is verified in an experiment; (4) it is then possible to repeat in a variety of situations the experiment which uncovered the law (*i.e.*, one can make measurements).

Thus it has been shown by Dingler(81) that the cornerstone of modern physics, the law of falling bodies, could not have been established purely inductively. Under the best experimental conditions a certain air friction is present which prevents the space covered by the falling body from reaching what it should according to the law. Galileo, hence, must have had the "hunch" that the space varied as the time squared. This became a working hypothesis and when experiments gave results approaching the hypothesis it was considered verified. Thus the law was developed from the "hunch." This made possible the more accurate measurement of time. That the law was established as we say it must have been is amply demonstrated by Galileo's own account of the discovery in his *Discorsi*(125).

TABLE 3

INDUCTIVE		HYPOTHETICO-DEDUCTIVE
	Experience ↙ ↘	
1. Measurement leads to		1. Hunch (leading to a precise definition of concepts) gives rise to
2. Laws (expression of correlations between events measured) which are summarized in		2. *a.* Working hypothesis leading to *b.* Law, which is verified in *c.* Experiment. Thus arises the
3. Theories (if necessary)		3. Ability to measure

Conventional deduction is the inversion of induction without the experimental procedures.

A word is necessary here in order that the hypothetico-deductive method may not become confused with the deductive method.

From pure deduction one can only gain truths which are implicit in the first premises. By the hypothetico-deductive method, on the contrary, one constantly increases the breadth and validity of the first postulates. Induction makes little use of theory, deduction is practically all theory; in the true scientific method theory and fact are closely integrated. A table will perhaps help us to clarify the differences between the earlier biologists' ideas of induction and the steps of the hypothetico-deductive method.

We shall proceed along the lines of the hypothetico-deductive method in our social psychology because we believe, from a consideration of the history of science, that this is the method which has enabled us to gain that power over physical nature which we now possess. A scientific social psychology should have these same advantages.

3. The Languages of Data and of Constructs

The Language of Data (Phenotypic Description).—Besides two philosophies of biology and two scientific methods one can distinguish also two types of scientific language. In the last chapter we saw that science started with descriptions in the language of data and that this language was translated into that of constructs. Constructs are schematic interpretations which account for the essential characteristics of our normal experiential world. Thus the wave theory of light allows us to order colors to the various wave lengths of the spectrum. The following lines should show something of the advantages of this procedure. The language in which we make our statements about social psychology will be related both to our philosophy and to our choice of a method. When one speaks of common experience in everyday language, making such statements as "The table is red," or "I smell gasoline," or "The child wants the piece of candy," one is using the "language of data."

The Language of Constructs (Genotypic Description).—When one orders these descriptions to such statements as "A photosensitive organ is reacting in a photo-electric field to wave lengths of 670$\mu\mu$ distributed spatially in a certain pattern," or "A chemicosensitive organ is reacting in an atmospheric field in which there is a substance having such and such a benzene ring structure," or "There is a vector toward a goal in the child's psychological field," one is using the "language of constructs." Expressed in another way the first statements are about "phenotypes," the second are about "geno-

types." By phenotype Lewin, who first used the term in this connection, means the experience which one expresses in the ordinary language of phenomena, by genotype he means the underlying dynamic situation. Thus a strike and a war may be quite different phenotypically, but represent manifestations of quite similar genotypes, being conflicts of power. The behavior of a "fresh" child and an embarrassed child vary phenotypically. In the language of constructs, "freshness" and embarrassment are often to be ordered to practically identically structured fields. Lewin has shown that the useful laws of a science are simply descriptions of genotypes. This is certainly true of modern physics. Consequently we shall attempt to develop such constructs for social psychology. The differences between the language of data (phenotypic description) and the language of constructs (genotypic description) can again, perhaps, best be expressed in a table.[1]

TABLE 4

LANGUAGE OF DATA (PHENOTYPIC DESCRIPTIONS)	LANGUAGE OF CONSTRUCTS (GENOTYPIC DESCRIPTIONS).
Statements about experience in language of experience, *i.e.*, phenomena.	Statements about logical constructs (*i.e.*, theories and working hypotheses of Table 3) as genotypic descriptions.
Example	Example
The apple falls at an accelerated rate.	The gravitational field is so structured that $s = \frac{gt^2}{2}$
The child wants candy.	There is a vector toward a goal in the psychological field.

The advantage of the constructive language is that many phenotypes may be understood as instances of one genotype.

4. CLASS THEORY VERSUS FIELD THEORY

The organismic philosophy of biology, the hypothetico-deductive method, and the language of constructs are *all* related and represent what we believe to be the most fruitful scientific method. Modern physics, and few will deny that modern physics represents the experimental science par excellence, uses them all in what the writer has called the field-theoretical approach(39). Opposed to this is the combination of the atomistic-mechanistic philosophy, the inductive method, and the language of data which may be called the class-

[1] Appendix A again develops this distinction at a more advanced level.

theoretical approach. In the following lines we shall summarize the basic differences between a field-theoretical and a class-theoretical approach. Repetition of certain points already made is unavoidable, since the field-theoretical attack attempts to combine the advantages of philosophy, method, and language, which we have pointed out above. This repetition in a slightly different context should help the reader not versed in modern methodology to understand more clearly the foregoing distinctions.

We shall set up ten criteria for both "class" and "field" theory. These criteria are to be looked on as neither methodologically nor logically final. It is relatively easy to reduce the number of criteria to considerably less than ten or to spin it out to considerably more. The list as given, however, has proven itself valuable in examining various psychological and biological theories. It is to be looked on as tentative and chiefly of heuristic value. In the following exposition, we shall contrast "field" and "class" theory in two columns.

The author first set up these distinguishing criteria in a paper entitled "Freud and the Scientific Method"(38). In his formulations he drew heavily on the paper of K. Lewin, "The Conflict between Aristotelian and Galilean Modes of Thought in Contemporary Psychology and Biology"(202). Lewin in his turn was indebted to the philosopher E. Cassirer(55). The clearest examples for both types of theory are to be found respectively in a comparison of Aristotelian physics with modern physics. Readers without any knowledge of physics may skip the first paragraph or two under each criterion and gain, it is hoped, sufficient understanding of the chief differences from the sociological and psychological examples which follow.

Criteria for Class Theory	Criteria for Field Theory
1. The behavior of objects is determined by the "class" to which they belong.	1. The behavior of objects is determined by the structure of the "field" of which they are a part.

In a "class" theory, the characteristics of behavior common to different individuals of a class are abstracted. If the behavior of another individual shows these characteristics, it is included in the class, and the behavior is then regarded as explained. In explaining an event in a "field" theory, the structure of the field is characterized in terms of laws, which we shall see are logical constructs. If the behavior of the object follows these laws, it is said to be explained. Following Lewin we shall elucidate our criteria with examples from

Aristotle's kinetics and the modern physical treatment of the same topic. Aristotle's kinetics depend on his chemistry. Earth, water, air, fire, and ether have their "rightful" positions in this order from the center of the cosmos outward. Whether an object moves upward or downward depends on the direction from which it has been removed from its "rightful" place. If fire is generated on the surface of the earth it represents a displacement and it moves upward because it belongs to the class fire. A stone thrown into the air, belonging as it does to the class earth, returns downward.

According to the modern physicist bodies fall in a direction and at a rate which is determined in final analysis by the spatial-temporal distribution of bodies in the cosmos or (if we insist on an up-to-the-minute description) by the structure of the space-time manifold. When this structure is clearly characterized the direction and rate of movement can be deduced in terms of a logical necessity. In general, the behavior of objects within a field may depend also on the character of the objects themselves. This is strikingly so of the behavior of objects in the electromagnetic field. The microscopic field structure of the objects, however, may enable us to deduce these characteristics.

Sociological thinking at the present time abounds in analyses wherein certain common characteristics are abstracted from a class and behavior is "explained" by showing that the individual belongs to the class. Such statements as "It is human nature to act thus and thus" are all to be so classified. Certain traits usually found in humans are abstracted and set up in the category "human nature." Those who show these traits show them because they belong to the class *Homo sapiens*. Those who do not are considered "abnormal." Practically all racial and national social psychology is of this nature. Germans are said to be industrious, frugal, sentimental, etc. Herr X is a German, therefore his industry is explained. John Y, who is normally very rational, takes an active part in a brutal lynching. Mobs are governed by a "mob mind." Brutality belongs to the nature of the mob mind. John's brutality is hence explained.

In the theory of the social field, the attempt will be made to deduce such behavior from the underlying field structure. Since such analyses will be the chief subject matter of this book, for the present this general characterization is all that may be given.

2. The force directing behavior shows the properties of an entelechy.

2. The force directing behavior shows the properties of a vector.

Bodies move, according to Aristotle, because each harbors an "entelechy" which strives to return the body to its "rightful" place. The entelechy, as Lewin pointed out, is in itself determined by the class to which an object belongs. In modern kinetics, the movement is defined by a vector whose direction and magnitude at any place are both determined by field structure. A stone without a field according to field theory would not behave at all, according to class theory it would presumably start looking for other stones.

All strictly vitalistic forces like the soul, purpose, libido, wish, as used in contemporary social psychology, play the same methodological role as the entelechy. The substitution of such scientific-sounding names as "*élan vital*" for the soul of the theologist means advance only on the descriptive level. The derivation of the force concept of all vitalistic systems is on the basis of the abstraction of certain properties exhibited by classes for a constant field structure. In the theory of the social field behavior will be seen to follow lines of field force, whose direction and magnitude are determined by the structure of the field.

3. There is local determination.	3. There is no local determination.

The return of the stone to the earth is determined "in" the stone according to Aristotle. Outside or accidental forces displace the stone, then the entelechy begins to act and it strives to return to its rightful place. In modern kinetics, there is no local determination. This should be clear from the above.

In social class theories the German's industriousness is determined "in" the German. The seat of the soul is "in" the individual. Purpose and drive are conditioned chiefly by internal forces. In the social field on the other hand all movements are instigated by forces which originate through the field structure.

4. The concepts used in class theory are primarily substantial.	4. The concepts used in field theory are primarily functional.

Aristotle's analysis is concerned with the substance of which the object is made. The substance of which the object is made is a matter of complete indifference to the field theorist.

In social psychology not only all sorts of individualistic concepts like libido, instinct, and wish but also collectivistic concepts like the "group mind," and the "social organism" may be looked on as substantial. In the theory of the social field, neither the behavior

of the individual nor that of the group is to be explained by the character of the substratum.

5. The method of scientific analysis is primarily structural.

5. The method of scientific analysis is primarily functional (relational).

The problem for the Aristotelian physicist to determine is of what the object is made. If it is a stone, then it is earth, and when thrown in the air moves downward. Modern kinetics was developed by varying the conditions under which movement occurs. The modern physicist always expresses his analyses in series of relationships.

Sociological and social-psychological analyses which use statistical tabulations without attempting correlations are primarily structural analyses. Thus one tabulates budgets of various income classes or intelligence quotients of various nationalities and social classes. In the theory of the social field statistical tabulations will be useful in helping to define the magnitude and direction of field forces. They have no "explanatory" value in themselves.

6. The analysis is in terms of historically and geographically conditioned regularities.

6. The analysis is in terms of ahistorical-typical laws.

Aristotle as a physicist is concerned with empirical observations of his own time. Common experience of falling bodies in the atmosphere agrees better with Aristotle's physics than it does with the modern theory of the gravitational field. Every young student of physics is a doubting Thomas when he first hears about the piece of lead and the feather in the vacuum. With the exception of the movement of the heavenly bodies, Aristotle was content to accept the statistically regular as the lawful.

Statements about falling bodies in modern kinetics are statements about *types* of events which hold throughout space and time. They are statements about logical constructs which physicists have postulated as underlying the given immediate experience. The field theorist *orders* his experiences to these logical constructs. In so far as his phenotypical experiences may be so ordered to these genotypical constructs that he may deduce what his subsequent experiences will be, he considers his scientific analysis successful. The relationship between time and space expressed in the law of falling bodies, although never agreeing precisely with actual data, presumably holds for all past and future historical times and for all positions in the cosmos. Explanation of an event consists in ade-

quately describing the underlying genotype and in seeing if the phenotype (experience or data) may be precisely *ordered* to it. Laws are descriptions of genotypes.

It is here that field theory enjoys the greatest advantage over class theory. When the laws (genotypes, underlying dynamics) are well enough known to allow measurement, one can predict the future quite independently of the past. That the climate of the past, soil erosion in past years, the date of the spring thaw, etc., all have some part in determining the time at which an individual apple will fall is obvious. But the contemporary physicist, if he could make certain measurements, could predict the fall of the apple and the place it would land with a high degree of accuracy quite without reference to its past history. He might characterize the fall with a single vector. He needs no knowledge of the history of the tree. The fact that there are many contradictory theories of cosmic evolution is a matter of indifference to the physicist. The psychologist always excuses his lack of precision by referring to the difficulties of a genetic nature which hamper him.

In this respect all sociological theories of evolution are to be characterized as class theories. Furthermore all theories which "explain" present events as "caused" by events in the remote past are also class-theoretical. In the theory of the social field the attempt will be made at a strictly ahistorical science. In order to avoid misunderstanding it is necessary to emphasize that we do not deny the importance of history. There is certainly a sociological difference between the wars of the twentieth century and those of the seventeenth, there are certainly differences between the French and Russian revolutions and between the leadership of Caesar and Mussolini. The historically conditioned changes in economic systems, transportation, communication, social class structure, etc., must all be taken into consideration in the genotypical field description. It is to be hoped that this may be done by means of indices in a comparable fashion to that in which the physicist defines his constants.

7. The method is primarily empirical. 7. The method is hypothetico-deductive.

This point is closely related to the foregoing. Aristotle's descriptions fitted his experiences fairly accurately. His experience (without control or verification through the experimental method) dictated

his theories. Perusal of Galileo's *Discorsi* convinces one that Galileo deduced the relationship between time and space before he performed his justly famous critical experiments on the inclined plane. In field-theoretical analyses all experiments are critical, *i.e.*, they are performed to test the validity of rather precise working hypotheses. The hypotheses themselves require an adequate definition in terms of the original concepts and the experimental situation must be adequate to decide on the validity of the hypotheses. Working hypotheses then precede experimentation.

Naturally all purely empirical statistical approaches in social psychology are to be characterized as class theory on this point. In a field theory one should, as we shall see, construct theories which may be subjected to critical experiments.

8. The analysis allows dichotomies.

8. The analysis allows no dichotomies.

Only in the sphere of the ether are absolutely regular laws to be found, according to Aristotle. The only laws which brook no exceptions are those of astrophysics. In the theory of the gravitational field, on the other hand, there is no essential difference between events on the earth and events on the moon.

Most contemporary social psychology abounds in dichotomies. The division of behavior into the intelligent and the instinctual is an example of this. Another is the division made by practically all writers between "normal" individual behavior and "abnormal" mob behavior. From the standpoint of the theory of the social field there is no strict dichotomy between instinct and intelligence nor between the behavior of the individual acting alone and that of the individual in mobs.

9. Class theory tends to use valuative concepts.

9. Field theory insists on nonvaluative concepts.

Movements in the ether were on a "higher" plane (*i.e.*, showed perfection), while movement on the earth was "imperfect" according to Aristotle. The approach of modern science, as has been pointed out time and time again, is concerned with neither the good nor the bad, neither the beautiful nor the ugly.

Practically all social psychology is written from the standpoint of a certain social class or political party or even religious belief. We should attempt to write a social psychology without class, race, or personal bias although this is a very difficult thing to do.

10. Class theory attempts to answer a metaphysical "why?"

10. Field theory attempts to answer a scientific "how?"

Aristotle was trying to answer the question: "Why do bodies move?" Galileo, the first thinker in the field-theoretical tradition, attempted the more modest question: "How do bodies move?" I believe it could be shown that the question "why?" as posed by Aristotle must imply a metaphysical answer. Whenever one poses questions like "why movement?" "why life?" "why love?" one must begin to think in terms of animism or class theory. To a certain extent field theories also answer the question "why?", but it is a different sort of "why?" It is, I believe, synonymous with "how?" Field theory, as we have seen above, shows the logical necessity of connection between events by ordering phenotypical or observed data to genotypical constructs. Science never explains why nature is the way it is, but simply relates certain events to others in terms of logical necessity. It does not even answer *why* they should be related at all, but simply shows *how* they are related. Explanation in science is description in a language which allows us to derive certain necessary implications from certain concrete cases.

Sociological writing today is a rather indiscriminate mixture of metaphysical *why* explanations and scientific *how* explanations.

Present Status of Sociological Theory.—Is there any sociological theory which fulfills all the criteria for field theory? We believe not. Many of the single criteria are fulfilled by individual writers. Other writers are thinking almost completely in terms of class theory. We shall next develop the constructs of a field-theoretical social psychology. Then we shall give numerous examples of the class-theoretical mode of approach in social psychology before we attack its problems from the field-theoretical standpoint.

5. Summary

1. We indicated that underlying all scientific biological theories is either the atomistic-mechanistic or the organismic philosophy of biology. Vitalism as a philosophy of biology is worthless scientifically since it necessitates the postulation of an unobservable causal entity. The most promising philosophy of biology for social psychology is the organismic.

2. There are two ideas of what constitutes the scientific method: induction and the hypothetico-deductive method. For methodolog

cal reasons social psychology should use the hypothetico-deductive method. This method, starting from a "hunch," develops working hypotheses, which when tested in critical experiments become laws and make measurement possible.

3. Scientific findings may be expressed in the language of data or the language of constructs. Constructs are schemata to which observations may be ordered. Many data may be adequately characterized through single constructs. For methodological reasons social psychology should use the language of constructs.

4. The organismic philosophy, the hypothetico-deductive method, and the language of constructs are logically related in what we have called the field-theoretical approach. This approach is scientifically the most valid. Contemporary sociology has no theories which fulfill all the criteria for the field-theoretical approach. It is our plan to construct one.

Bibliographical Note

The best discussions of the differences between atomistic-mechanistic and the organismic viewpoint, including the critique of vitalism from the standpoint of psychology, are Koehler(174), Koffka(175), Wheeler(351). From the standpoint of general biology see von Bertalanffy(21) and Woodger(366). More literature on Gestalt psychology will be given in Chap. III.

The older viewpoint as to the nature of the scientific method is best exemplified by Mach(222) and Pearson(265). Perhaps the recent work on the scientific method which is most important is that of Bridgman(29). The nature of the hypothetico-deductive method is treated by Lewin(201) and the author(37).

The idea of a language of constructs is clearly stated by Carnap(54). *Cf.* also Feigl(105) and the closely related position of Lewin(201).

The idea of field theory was first presented in the form of this chapter by the author(38). This chapter is largely a rewrite of the author's paper(39).

For the criteria of field theory, I am much indebted to Lewin(202) and Cassirer(55).

CHAPTER III

SOME BASIC CONCEPTS IN THE LOGIC OF DYNAMICS[1]

1. The Concept of the Psychological and Social Field

We are now ready to introduce the specific constructs which we shall use in building a field-theoretical social psychology. That such constructs are methodologically adequate for handling problems of social psychology will be demonstrated in the following chapter and throughout this book. These constructs are mathematical in nature. Mathematical constructs have very decided advantages in any science. Scientific facts, as we saw in Chap. I, are those which gain the universal assent of competent observers. The propositions in mechanics about falling bodies are given universal assent, but only by observers trained in physics. Every young student is a doubting Thomas when he first hears about the stone and the feather in the vacuum. Our uncontrolled observation of falling bodies is usually (due to air resistance, etc.) quite different from the observations made by trained physicists in the laboratory. Similarly in psychology the behavior of a "fresh" child and an embarrassed child will in many instances be observed by the psychologist to be genotypically almost identical, while the untrained observer sees nothing in common in them. On the other hand, in political science the naïve observer sees the striking similarities between fascist Germany and communist Russia, while the underlying differences are the object of study for the political scientist. Consequently, agreement between observers is not enough to establish a scientific fact unless the observers are competent. By competence we mean specialized training in the translation of phenomenal observations into the language of constructs for the particular science.

[1] Appendices A and B give a mathematically stated account of these concepts which is much more stringent. The more advanced reader might well read them in place of Chap. III.

The constructs of mathematics are those to which competent observers most readily give universal assent. The methodological reasons for this state of affairs cannot be stated in detail here.[1] But such a situation has naturally led all scientists to attempt a mathematical treatment of their data. The great philosopher Kant went so far as to say that any discipline is as scientific as it contains mathematics. Consequently we strive to invent constructs which will be as mathematically stringent as possible. The first one which we must introduce is that of the *psychological field.*[2]

The Field as Spatial Construct.—The psychological field is a spatial construct to which our phenomenal descriptions of psychological behavior are ordered. The *social field* is a methodologically equivalent construct for ordering sociological and social-psychological behavior. Space is a mathematical construct in which positional relationships may be expressed. We commonly think only of the Euclidean space of geometry or of the real space of the world about us. A long series of more advanced mathematical researches, however, has shown us that there are many individual spaces. Everyone has heard something about the fourth dimension and, since Einstein, physicists have made wide use of a four-dimensional space in which time is added to the usual three dimensions of solid geometry. The great German mathematician Riemann(282) showed that spaces could be constructed of any arbitrary dimensions and properties, provided that these were logically consistent. The dimensions of spaces may undergo curvature, *i.e.*, from the standpoint of our ordinary solid geometry the direction of a "straight line" may change at certain positions in the space. Riemann further showed that properties like curvatures are, under certain conditions, dependent on the physical dynamical processes which occur within a space. At first Riemann's work was considered of only academic interest. Again, however, in modern physics we find actual cases of this sort. Nearly everyone now has heard something at least about the curvature of light rays, which are so well accounted for by the constructs of the relativity theory. Recent work by Lewin(205) has indicated that there is a similar relationship between the properties of the space of the psychological field and psychodynamical processes. Consequently when we say that the construct of the psychological field is a spatial construct, spatial must be understood

[1] *Cf.* Appendix A.

[2] Technical mathematical constructs will be italicized on introduction.

as pertaining to all *possible logical constructs about positional relationships.*

Necessity for Abstraction.—Every sample of human behavior may be analyzed physically, chemically, biologically, physiologically, psychologically, sociologically, perhaps also ethically. I refill my fountain pen. The physical analysis of such an event would describe the energy exchanges in terms of the mechanics (possibly in terms of the changes in atomic structure) which occurred as my hands executed the movements necessary for this act. Chemical analysis would be concerned with the chemical changes attendant upon it. The biologist would treat the activity as a problem in ecological adaptation. The physiologist would concern himself with the changes in the biochemistry of my body during the behavior. *To the psychologist the behavior is analyzable as an example of goal-integrated activity. The sociologist would be concerned with the possible results of the act in the social groups to which I belong. The social psychologist is interested in how far my behavior in doing this is conditioned by the behavior of the social groups to which I belong.* The ethicist must decide as to whether or not I have done right in filling my pen in order to write the lines which you are now reading. Any analysis of the behavior requires *abstraction* of certain of its aspects. To describe the physics of the act the physicist makes use of the construct of the gravitational field; psychologically the act may best be described as occurring in a psychological field. Statements like "The rat is hungry and trying to get the cheese," "I am attempting a clarification of psychological theory" are to be *ordered* to vectors within psychological fields. The psychological field is a *construct* to which all psychological activity (*i.e.*, behavior) may be ordered. It is spatial in the sense in which space has been defined above.

Comparison of Psychological with Mathematical and Physical Fields.—The idea of the psychological field may perhaps be clarified by comparing it with mathematical and physical fields. Mathematical fields are spatial *regions*[1] which may be either scalar or vector fields. A *scalar* field is a region where every point may have an associated set of magnitudes. A *vector* field is a region where every point is characterized by both direction and magnitude. Physical fields, as for instance force fields, have every point characterized by a vector, which represents the potential at that point. The points in the psychological field are associated with both direction and

[1] A region is any segment of space.

magnitude but these may for the present only be non-metrically defined. The behavior of an organism may be said to be *directed toward a goal. The force behind the behavior may be said to have a magnitude.* The magnitude may have an index figure assigned to it. Whenever an organism behaves psychologically, it may be said to be behaving in a psychological field. The goal which it is "trying" to find is to be ordered to a point within this psychological field. The force which is causing the behavior is to be ordered to a vector within this psychological field, as is its present position. The concept of the psychological field has the methodological properties of fields as we outlined them in Chap. II. The total distribution of energy or field structure determines the value of positions within it. Forces within it have the properties of vectors rather than entelechies. There is hence no local determination.

For first analysis a two-dimensional plane suffices as an adequate construct for all psychological behavior problems. (A one-dimensional manifold would not be adequate, because we would then have no possibility of ordering behavior which was not in the simple direction toward or away from the goal.) In the language of data, there is a rat (a man), which (or who) is trying to get cheese (a solution to a mathematical problem). In the language of constructs, there is a vector in the psychological field, activating the rat (man) toward the goal, cheese (or the solution of the problem). Both organism and goal are to be ordered to positions in the psychological field. The force (language of constructs), to which the behavior (language of data) of both is to be ordered, represents a directed magnitude. The value of this vector depends on its position in the field. It is well known that when the goal is nearly attained the magnitude of the vector is greater. From this one can conclude that the coordinates to the points in the psychological field have magnitude. But the magnitude which must be assigned to position within the psychological field is non-metricized.[1] *Point values in the psychological field are not yet metricized in character, while those in physical fields are metricized.* The direction of vectors in the psychological field may be defined for certain problems through the distinctive path between points within the field. Consequently the chief methodological difference between the psychological field and

[1] By non-metricized we mean not to be expressed on a scale which has a set *O* point and equidistant units. We shall return to this problem in the next paragraphs.

the physical field is that direction and magnitude of the point values within the psychological field are not as yet to be given with the same precise definition. The physical and the psychological field both represent *spatial constructs*. Every psychological activity may be ordered, for first approximation, to a two-dimensional plane (a surface), where organism and goal represent certain spatial regions within the surface. Although physical fields may be treated in terms of geometry, in psychology this surface must be treated as a topological rather than a metricized field at the present time. It is mathematically possible to create as many additional dimensions to this continuum as are necessary to enable us to treat adequately the psychological descriptions of the language of data.

Degree of Structuredness of Fields.—By *field structure* we shall mean the variations in precision with which the position of points in the psychological field may be given. Following Lewin(205) we shall call fields *unstructured* where it is impossible to give the position of (*i.e.*, to distinguish) points. A field is said to be *structured* when one can distinguish large regions, but not infinitely small regions, within it. When one can distinguish infinitely small regions or points within a field it is said to be *infinitely structured*. The degree of structure refers to topological, *i.e.*, non-metricized, fields. Only metrical fields are infinitely structured. So only in psychological problems where we are concerned with actual physical locomotions of the subject (the problem of the rat in the maze, for instance) is the psychological field infinitely structured. We can precisely define goal and initial position. For the chief problems of human psychology (the mathematician solving the problem, for instance) the field may be said to be structured but not infinitely structured. For this reason, except for the simplest problems, like maze running, the space of the psychological field must be treated topologically rather than metrically.

2. Topological Concepts

Topology Defined.—Geometry means literally the science of measuring the earth. Measurement supposes that one can define zero quantity of the property measured and set up measurement scales where the individual units will be equivalent. Such measurement is called fundamental measurement and all sciences strive to attain it. For certain problems of psychological behavior we may measure the spatial relationships between the organism and the goal. But for

many more (and these are the most interesting), we may not do this. The question arises: "Is not a mathematical social psychology then impossible?" But here modern mathematics comes to our rescue. Despite its derivation, geometry is concerned with all possible constructs about space. The mathematicians have discovered in *topology* a science which deals with the positional relationships which are independent of distance and direction. Thus if one draws any type of geometrical figure on a piece of dentist's rubber, there are certain positional relationships which remain constant despite any stretching which the rubber may undergo in the plane. Stretching the rubber within the plane causes the figure to undergo point-to-point transformations. Two such arbitrary transformations from

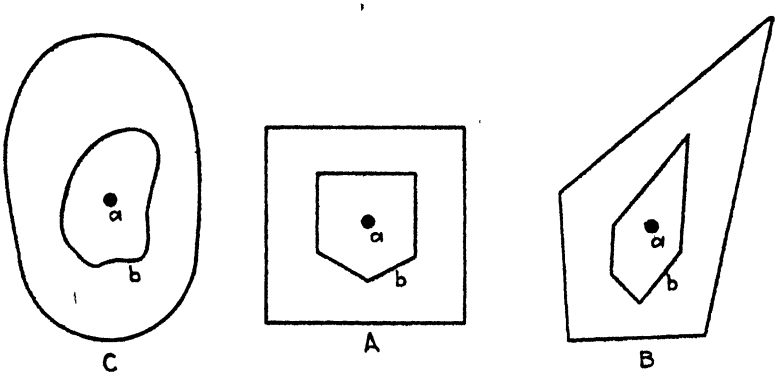


FIG. 1.—Showing topological point-to-point transformations. For meaning see text.

the original *A* configuration are indicated in *B* and *C* of Fig. 1. Despite these transformations the dot, *a* (in topological nomenclature, point-region) remains within the closed line (boundary), *b*. The boundary in *B* is geometrically quite different from that in *C* but it still has the property of dividing the plane into two regions, an inner and an outer. To go to one from the other requires crossing the boundary. The topological relationships are the spatial relationships which persist after point-to-point transformation. Such persisting spatial relationships are topologically equal. A circle, an ellipse and any polygon are topologically equal. So are a cube and sphere, in fact, any closed three-dimensional figure. The type of boundary which we introduced in Fig. 1 is called the Jordan curve. It can be proved that the Jordan curve divides a surface into two regions, of which the curve is the common boundary; that

the Jordon curve defines at the most one limited region; that it is impossible to move from the inner limited region to the outer region without crossing the curve. At the present time hundreds of such demonstrations are possible.

Topology is in many ways to be looked on as the basic science of space. With topology geometry becomes truly the science of positional relationships. Since relational thinking tends to structure itself in terms of spatial relationships, topology gives us the mathematics necessary to set up theories about psychological problems, where *fundamental* measurement is impossible at the present time.

Topology, then, investigates the non-metrical aspects of space, particularly the possible connections between different spatial regions.

It should be quite obvious that there is relationship here to such modern psychological conceptions as Gestalt, configuration, belongingness, and membership-character.[1] For psychological purposes one might define topology as the science which investigates the "belongingness" of spatial regions, and their connectivity with other regions.

Readers who wish a more detailed discussion of topology as a mathematical discipline should turn to Appendices A and B, where they will also find references to the mathematical works.

The Topological Constructs.—In the following paragraphs we shall introduce the topological constructs which we shall use in the analysis of social psychology, Parts II, III, and IV. The examples given should help the reader to become able to translate the phenotypic descriptions of social-psychological data into the constructs of a field-theoretical social psychology.

Region.—By region we mean any segment of space. Thus a point, a line, a plane, and a solid are all regions of respectively 0, 1, 2, and 3 dimensions. Regions vary topologically in that they are characterized as bounded or unbounded and limited or unlimited. For social-psychological purposes our psychological field may be defined as a limited region which may be bounded or unbounded. By a limited region we mean one which does not extend infinitely in any of its dimensions. It should be quite obvious that the position of physical goals with reference to the organism is limited in the psychological field by geographical considerations. Purely con-

[1] These psychological conceptions will be introduced in this chapter and the following ones.

ceptual and social goals must also be placed within a limited region with regard to the organism because of the biologically conditioned time factors. Only the soul as the theologians conceive it operates conceptually in an unlimited region. And we are not going to consider the soul for the methodological reasons already given. A region of the psychological field is *bounded* by an adjoining region of different structure. Thus an individual closed within a prison cell is to be ordered to a bounded psychological field. Similarly all organized groups are ordered to bounded regions of social space. Point-regions are of particular significance for the treatment of sociological problems. *Point-regions* are segments of space, which we shall treat mathematically as points, *i.e.*, as showing no differentia-

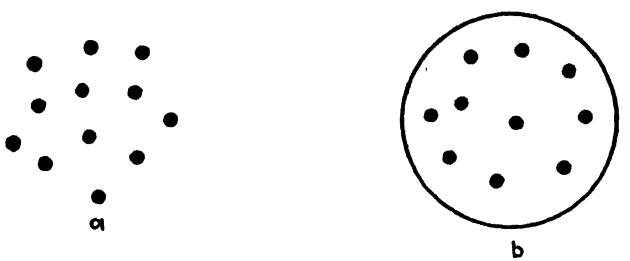


FIG. 2.—Showing topological properties of (*a*) an unorganized and (*b*) an organized social group.

tion in their inner structure. For problems of social psychology, where our interest is chiefly in the effect of changes in field structure on the "average" member of a group, the individual will be so treated. This means we shall treat all the members of groups as if they were identical biological organisms. This is certainly not true, but for a first approximation it can be justified.[1] In all our topological figures, the heavy points (*cf.* Fig. 3) will indicate persons. For many problems the goal may also be indicated as a point-region. The goal will be indicated as a plus sign (*cf.* Fig. 3).

Figure 2*a* gives the topological description of a social crowd without organization and having high mobility. A crowd in a public park would be field-dynamically described by this figure. The field is a limited region in which point-regions (the individuals) are differentiated without boundary. A stranger may come and go at will in the park crowd.

[1] The topological differentiation of the *person* as a relatively segregated region of the social field will be treated in Part III. Such concepts will not be needed until later.

Any organized group must however be ordered to a bounded region of the social field. Figure 2*b* is the simplest topological description of a social group organized for any definite purpose, say an evening party. The region must be bounded because socially the individual behaves differently within and without the group. An individual to be ordered to such a field must have membership-character[1] in the group. A stranger may join the group only under certain circumstances. Boundaries will be indicated in our figures by solid closed lines.

Locomotion.—By locomotion is meant change in topological position. Psychologically in the language of data we say an individual reaches his goal. The dynamical construct for such behavior is locomotion. The individual point-region is said to make the locomotion from his initial position to the goal. One of the chief problems of surface topology is the connectivity of certain points by certain paths or the possible locomotions between point-regions. By connectivity, we mean the topological relationships of regions. Regions are said to be onefold, twofold, and so on up to *n*-fold connected.

Let us give several examples:

Suppose an individual is on the playing field of one of our modern American athletic stadia, such as the Yale Bowl. If all the exits are blocked the individual's actual physical locomotions occur in a limited, bounded region. When the individual, either on instruction of the psychologist or on his own initiative, moves, his direction of movement is indicated by the vector $\bar{V}$, which is a force directed towards the goal *g*. In this case if one of the exit doors of the stadium is left open the field becomes unbounded and the individual may leave it. This is a case of a physical locomotion. The path of locomotion is given by the dotted line, where the arrowhead indicates the direction of locomotion. This is shown in Fig. 3.

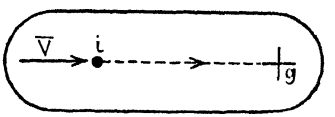


FIG. 3.—Showing the field situation for a quasi-physical locomotion. *i*, individual (topological point-region); *g*, goal; $\bar{V}$, vector.

The example just given is one of actual physical locomotion, and the properties of psychological space may be directly ordered to physical space, so that the physical correlates of the subject's locomotion may be given. Although many of the specific problems of animal psychology are to be treated in terms of such a space, the

[1] Membership-character will be defined shortly.

chief problems of human and social psychology require a more developed spatial concept. All behavior is to be ordered to locomotion in the psychological field. The goal may be, as we pointed out above, of the nature of attainment of a certain social status or of the solution of a mathematical problem. An individual *A* is a freshman student desirous of becoming a member of a certain fraternity. In this case he is to be ordered to a position in space outside the region to which members of this fraternity belong. The situation topologically is given in Fig. 4. *A* represents our student, *B* and *C* together the members of the fraternity. *A* wishes to get into the regions *B* and *C*. In order to become a full-fledged member *C*, he must go through the pledge region *B*. Psychologically, in terms of the language of data *A* wants to become a member of the fraternity. We order this situation to a field in which *B* and *C* represent bounded limited regions, where *C* lies within *B*. It is impossible to make the locomotion from *A*'s original position to *C* without first attaining membership-character in the region *B*. In this connection the *boundaries* surrounding both *B* and *C* must be crossed.

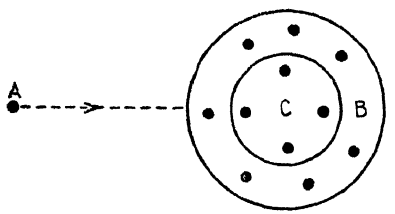


FIG. 4.—Showing the field situation for a quasi-social locomotion. *A*, the individual; *B*, the region of "pledges" within the fraternity; *C*, the region of membership within the fraternity.

A similar situation arises in the case of problem solution. If the individual is trying to solve the Pythagorean theorem, he must, in the language of data, make certain Euclidean constructions in order to arrive at the proof. Topologically the situation is that given in Fig. 5. It is necessary to go through regions *B* and *C* to get to the goal region *D*. Not all individuals may fulfill this locomotion, and the "ease" with which the barriers are crossed distinguishes a good geometry student from a poor one. An individual is to be located in region *B* if he has gone so far in the solution of this problem that the first constructions are made.

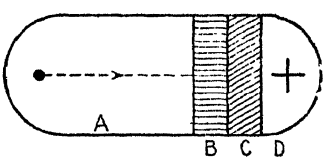


FIG. 5.—Showing the field situation for a quasi-conceptual locomotion. *A*, start of problem; *B*, *C*, regions of necessary mathematical constructions; *D*, region of completion.

Membership-character.—Regions in the psychological field are marked off by boundaries. Boundaries have been topologically defined above. The psychological significance of boundary is that in crossing a boundary the individual's reactions are changed. A person at an evening party must conform to the mores of the group. Our freshman student behaves differently after he has become a member of the fraternity. Our geometry student's consciousness about the Pythagorean theorem as a problem is differently structured after he sees the first steps in its solution. Sociologically all the members of any organized group are to be ordered to a bounded region. Belonging to the group gives the individual certain psychological characteristics which differentiate him from non-members. Individual point-regions within a bounded region are said to have *membership-character* within that region. We shall see shortly that the dynamics of the field determine the *variation* in membership-character among the individuals. All Catholics have membership-character in the bounded region to which the members of the Catholic Church are ordered, all Unitarians in the bounded region of the Unitarian Church. There is more variation in the Unitarian membership-character than in the Catholic. In other words, a greater latitude of opinion on matters of religious dogma is allowed in the Unitarian Church. *All the individuals within a bounded social region are affected in their behavior through the fact that they have membership-character within this region.* The boundary may be said to be *quasi-physical, quasi-social,* or *quasi-conceptual.*[1] Quasi-physical are boundaries like prison walls and club buildings, where membership-character is marked off by an actual physical boundary. The quasi-social boundaries are those where social institutions and mores mark off the regions. The quasi-conceptual are those where intellectual factors function as boundaries. In our figures inclusion of a point-region within a bounded region indicates its membership-character within the region.

Barrier.—Psychologically a boundary represents a barrier to locomotion. This barrier is not necessarily impenetrable, but in crossing it the point-region (individual) becomes ordered to a new social region and his "psychology" is changed. It is convenient to distinguish between two types of psychological barriers, both of

[1] "Quasi" simply means here "derived from," *i.e.*, we are interested in the physical, social, conceptual factors not for themselves but in so far as they affect the social field.

which represent topologically bounded social regions. In the following, *group-barriers* will be used to designate the limiting regions of social groups, *inner-barriers* to indicate blockages to locomotions within a given social region. Barriers may be quasi-physical, quasi-social, quasi-conceptual. The folkways, mores, and other social institutions,[1] as well as actual walls and fences, are to be ordered to barriers in psychological space.

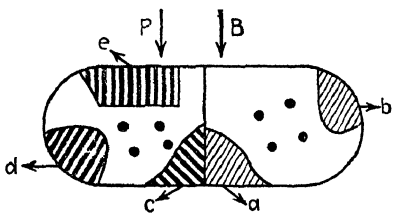


FIG. 6.—Showing the barrier characterization for two social class regions. *P*, proletariat group-barrier; *B*, bourgeoisie group-barrier, *a*, *b*, *c*, *d*, *e*, inner-barriers.

Figure 6 gives the barrier characterization of the proletariat and bourgeoisie as social groups. *P* represents the proletariat group-barrier, *B* that of the bourgeoisie; *a*, *b*, *c*, *d*, *e*, all represent inner-barriers within these group-barriers. The detailed characterization of such barriers may be given only in connection with the non-metricized dynamical concepts now to be introduced. Barriers will be indicated by bounded regions within the social field.

Reality Dimension.—The two-dimensional manifold allows us to treat of all initial positions and goals and consequently to give the topology for any psychological activity considered by itself. It has long been realized by psychologists, however, that there are decided differences in such activities as perceiving, thinking, dreaming, and daydreaming. The differences between such activities necessitate treating problems of individual psychological acts in a three-dimensional manifold. The introduced third dimension has been called the *reality dimension* of the life-space. It is necessary to introduce this third dimension because of the structural differences in activities which may occur practically simultaneously. Normal perception is said to have a higher degree of reality than thinking, and thinking a higher degree of reality than daydreaming. Thinking or even daydreaming may under certain circumstances, however,

[1] Keller(169) defines folkways and mores as follows: "The folkways of a society are its popular usages and traditions. The right kind of person will observe them. Taking off the hat before ladies is a familiar folkway. The mores are the more explicitly defined and emphasized folkways, firmly underscored because regarded as positively essential to the welfare of society. Honesty is an instance."

have a higher degree of reality than perceiving. The same goal may be perceived, thought, or dreamt about. Consequently the degree of reality is the third dimension of the psychological field. It is topologically treated as in Fig. 7. (The reality dimension is *continuous.* In the diagram only the field structure for two planes in the continuous dimension is shown. The barriers in the plane of lesser reality are indicated with broken lines to show their greater dynamical permeability, of which we shall speak in the next para-

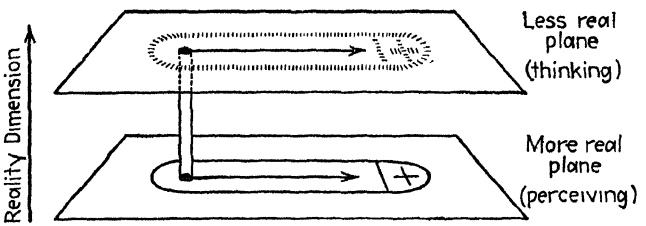


FIG. 7.—Showing the reality dimension of life-space.

graphs.) The reality dimension is always indicated by the vertical line cutting the field at right angles.

3. NON-METRICIZED DYNAMIC CONCEPTS

Meaning of Non-metricized Dynamics.—The topological concepts allow us to assign individuals and goals to certain spatial regions. They allow us to designate what locomotions are possible for an individual and what regions must be traversed in attaining a definite goal. But the topological concepts alone tell us nothing of the actual locomotions performed in psychological activities. So far we have seen that the position of the individual at the start of the psychological activity may be defined in reference to this. Psychological activities may be ordered to locomotions. The individual in this sense has the character of a *thing.* The space through which the locomotion occurs has the properties of a *medium.* The distinction between thing and medium has been emphasized by Heider(137). In physical problems where the field construct is used, one may make this same distinction. Bodies falling in the earth's gravitational field have the properties of things, while the atmosphere is to be characterized as a medium. Similarly in the electrostatic field, the isolated conductors have the properties of things and the field has those of a medium. In the following, individual point-regions will be considered as things, and the fields

in which the locomotions occur as media. Media have dynamic properties such as fluidity, permeability, cohesiveness, and the like. Our next step must be to introduce these concepts, define them, and give examples of their use. Such concepts are of definite scientific value only when they are capable of *operational definition.*

By operational definition Bridgman(29) means the definition of concepts through the operations or manipulations which established them. Thus space is defined in terms of the operations performed in measurement. The concept of length is gained by measuring with the meter stick. Similarly in psychology intelligence is defined as that which the intelligence test measures. Concepts which may not be defined operationally are meaningless. One must be able to give an operational, in this sense experiential, criterion to differentiate between concepts. Suppose you have two girls, Susie and Sally, who look like identical twins and in every way experimentally verifiable behave the same. Sally is a perfectly constructed automaton, and Susie is a real girl with a soul.[1] Which would you rather have? The question is meaningless because we may not differentiate between them. To put it into a slogan operational analysis shows that "a difference which makes no difference is no difference."[2] As we proceed later to concepts like the state, leadership, freedom, we shall see that only when these become operationally defined can they be given meaning. Thus we shall define freedom in terms of possible locomotions in the social field.

From this it follows that assignment of a certain fluidity to a field is permissible only when it is done on a definite experimental basis. Dynamical concepts may perhaps be useful for speculation, before operational definition is possible. Our language of data is rich in phenomenological descriptions where non-metricized dynamic concepts are used and readily comprehended, and the adoption of them as constructs undoubtedly originates in such phenomenological descriptions. But *scientific meaning* accrues to such concepts only when they may be precisely, *i.e.*, operationally, defined. At the present time we may define these concepts in terms of *experimental* or *statistical indices.* We use the term index purposely to distinguish such numerical assignations from real or fundamental measurement. Experimental indices are gained from actual experiments and have their greatest use in problems of individual psychology. Statistical

[1] This old example I believe was first used by William James and C. S. Peirce.

[2] The author is indebted to Prof. H. Feigl for this slogan.

indices are used chiefly in problems of social psychology and sociology. Thus it is possible to use income-tax returns as an index for the permeability of boundaries separating social classes, or from questionnaire results to obtain indices for the variation of field fluidities among social groups.

In the following we shall suggest different operations which may be used in defining each concept. We do *not* wish at this early point in the development of field theory to commit ourselves to too definite procedures in defining our concepts, because, where several indices are available, it may later transpire that one of these has a particular value for a final definition. *In each specific problem where these concepts are used, it is necessary to give them an operational definition.* Unless this is done, the theory may become meaningless.

The Non-metricized Dynamical Concepts.—The non-metricized dynamical concepts which we shall use are fluidity, degree of freedom of social locomotion, permeability, tension, and vector. The application of such concepts to psychological fields where the psychological space is quasi-physical, *i.e.*, where initial position and goal may be ordered to infinitely structured space (problems of mazes, circuitous routes, etc.), is quite obvious. For instance the permeability of an electrical grid as a barrier may be assigned an index figure on the basis of the strength of electric shock. The strength of a vector towards the goal of a maze may be non-metrically indicated by hours of hunger. So we shall deal chiefly with examples of problems where initial position and goal are not so easily defined.

Fluidity.—By the degree of fluidity of a medium is meant the ease of locomotion in the medium. Ease of locomotion depends not only on the fluidity of the medium, but also on the distribution of barriers in the medium and on internal psychological factors. It has meaning, however, to speak of the varying fluidity of psychological fields in themselves. For cases of actual physical locomotion it is quite obvious that *ceteris paribus* locomotion by walking across a street is in a more fluid medium than by swimming a stream of equal breadth. We speak, however, of the fluidity of psychological fields which have no immediate physical correlate, and of the fluidity of social fields. Phenomenally one "moves about" more easily in daydreaming than in perceiving. Daydreams normally occur in a plane of lesser reality than perception and one is justified in assigning a greater fluidity to fields of lesser reality than to fields of greater reality. Under such conditions fluidity may be opera-

tionally defined through the rate of diffuse discharge of tensions in the different fields. The memory for perceived acts and phantasied acts may be used for gaining an index figure to designate the fluidity. If the tensions in both fields may be considered equal, then perception may be said to occur in a field of lesser fluidity than phantasy when more perceived acts are remembered than phantasied acts. It goes without saying that such experiments require regular serial variation, control of motivation, and the other usual psychological controls.

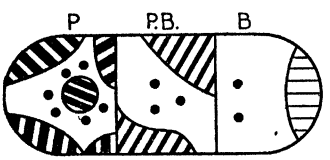


FIG. 8.—Showing various degrees of freedom of social locomotion for various social classes. *P*, proletariat; *P.B.*, petty bourgeoisie; *B*, bourgeoisie.

Likewise social fields may be said to vary in fluidity where fluidity means the ease of social locomotion. One speaks popularly of "stiff" formal parties and compares these with "free" Bohemian ones. The formal party is to be ordered to a field of low fluidity, the Bohemian party is to be ordered to one of high fluidity.

Degree of Freedom of Social Locomotion.—By degree of freedom of social locomotion is meant the comparative number of social locomotions possible in a given social field. In a field having a high degree of freedom of social locomotion many locomotions are possible as compared with a field having a low degree of such freedom. In general the degree of freedom of social locomotion varies inversely with the number of barriers within the field. The various social classes are to be ordered to fields of varying degrees of freedom of social locomotion. The bourgeoisie is to be ordered to a field of high degree of freedom of social locomotion, the petty bourgeoisie to a field of medium degree of freedom, and the proletariat to a field of low degree. Index figures may be assigned to the degree of freedom of such fields on the basis of economic and sociological statistics regarding income, consumption, education, and the like. Various differences in degree of freedom of social locomotion are indicated in Fig. 8. There is a close coordination between the number of barriers and their permeability, of which we will next speak. The degree of freedom of social locomotion will be given in our figures through an index figure within the region, as in Fig. 9.

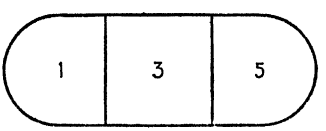


FIG. 9.—Showing index figures for various degrees of freedom of social locomotion for various regions.

Permeability.—By the degree of permeability of a barrier is meant the ease with which locomotions are executed through the barrier. Here one distinguishes between group- and inner-barriers (*cf.* above).

The group-barrier of the Catholic Church may be said to be less permeable than those of Protestant denominations. One can join most Protestant sects by simply going to the meetings, whereas to obtain membership-character in the Catholic region it is necessary to take instruction, become baptized, etc. Operationally then we are quite justified in saying that the barrier permeability of the Catholic Church region is less than that of the Protestant. Figure 10 gives the dynamical characterization of this situation. Differences in permeability will be shown by thickness of boundary in all our figures. Similarly one may speak of differences in barrier permeability for other groups and define the concept operationally. The boundary separating nations might be assigned an index of permeability on the basis of immigration statistics, that separating class groups within a nation on the basis of income statistics, etc.

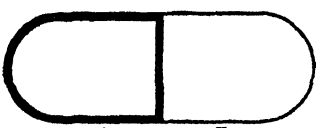


FIG. 10.—Group-barrier permeability for *C* (Catholic) and *P* (Protestant) regions.

Inner-barriers, which represent impediments to locomotion within social field regions, likewise vary in their permeability. The barriers to which laws are ordered are more permeable in the field of the bourgeois than in the field of the proletariat. Operationally this may be indicated by the ease with which bail and counsel are obtained by the bourgeoisie in comparison with the proletariat. Similarly, such taboos as that against being late to work represent barriers of decidedly different permeability for the executive, the salaried worker, and the wage earner.

Vectors.—The forces activating all locomotions in the psychological field are to be ordered to the concept of vector. These vectors represent forces causing psychological locomotion and are *directed* magnitudes. Their analogies in physical fields are the lines of field force within these fields. Such vectors, which represent forces, are to be indicated by arrows whose direction indicates the direction of the force, whose length represents its magnitude, and whose point of application is at the point of the arrow. Thus Fig. 11 gives the topological situation for our case of the freshman and that of another freshman even more desirous of "making the

same fraternity." Vectors are also used to indicate locomotions, as in Fig. 3. Hence vectors represent the psychological force concepts. We say that the magnitude of a vector varies directly with the ease of locomotion through fields and barriers of constant fluidity and permeability.

In all cases of actual physical locomotion vectors may be assigned index figures (though *not* measured) on the basis of hours of hunger, the strength of electric shock which will be suffered in attaining a definite goal, etc. Such procedures are so well known to experimental psychologists that further elucidation of them is unnecessary.

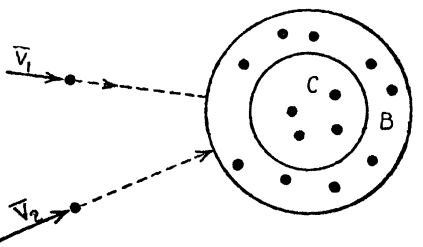


FIG. 11.—Showing the vector situation for two individuals of different motivation with regard to a quasi-social locomotion. (See Fig. 4.)

The assignation of index figures for vectors for locomotions other than physical may be accomplished—among other methods—through the operational definition of tension in terms of a memory index figure, or in the tendency to resume interrupted acts.

In the *social field*, the relative strength of vectors may be operationally defined through attainment of, or failure to attain, membership-character in groups where the social goal lies within definite social regions or statistically through the outbreak of war, revolution, or industrial strike.

Hodological Space.—In speaking of the *direction* of locomotions and vectors we have introduced a concept which is not permissible in pure topology. It becomes necessary to create a type of space which has directional properties. We saw that such creation was quite possible. Lewin(205) has done this with the construct of hodological space. Hodological space allows the definition of direction through the path of locomotion taken within the psychological or social field. The properties of such a space are dependent on the psychobiological dynamics of the situation. Since Riemann's time, however, such a procedure is quite allowable in geometry. A mathematical discussion of hodological space lies without the

scope of the present chapter.[1] The reader who does not wish further to pursue the intricacies of modern geometry must accept our word for it that the definition of direction in the psychological field is made on a mathematically sound basis.

Potency of Membership-character.—The local structure of the field determines the behavior of a given individual at any definite time. The variations in distribution of boundaries and barriers, their permeability, and the fluidity of the social field all combine to make the situation which determines what an individual's locomotions will be. We have spoken so far, however, of individuals as point-regions in single organized groups. Actually the individual has membership-character in various groups. He may be an American, a Catholic, a proletarian, etc. Such combined membership-character is indicated by ordering the individual to the topological mean[2] of one or more bounded regions. This is indicated in Fig. 12. The question immediately arises which membership-character is most important in determining the behavior of the individual. This becomes a particularly important problem when the various groups themselves become so structured that a conflict ensues between them. In such cases we speak of varying degrees of potency of membership-character. This potency is given by an index figure and the group indicated by a letter as in Fig. 12.

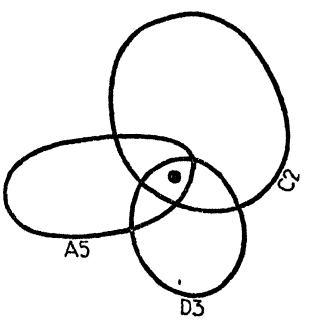


FIG. 12.—Showing topological mean of regions having varying potency of membership-character. *A*5 indicates that the potency of membership-character for region *A* is the index figure 5.

This completes the topological and non-metricized dynamical properties of the social field as a construct, applicable to the problems of social psychology.

4. SUMMARY

1. The constructs of the social and psychological field are mathematical in nature. Mathematical constructs have great scientific advantage because universal assent is most readily given to them.

[1] Cf. Appendix B.

[2] Topological mean of two regions is the area common to both. Cf. Lewin(207).

The construct of the social field is a spatial construct. Space must be understood in the post-Riemannian sense of the word.

2. Topology investigates the non-metrical and non-directional aspects of space. For methodological reasons topology gives us the most suitable mathematics on which psychological theory may be based. The topological variants in psychological field structure are region, boundary, membership-character, locomotion, degree of reality.

3. The dynamical variants in psychological field structure are non-metricized in nature. They are: fluidity, degree of freedom of social locomotion, permeability, potency of membership-character, vector. The next step must be to show the actual usefulness of these constructs.

Bibliographical Note

The reader is referred to Appendices A and B for a mathematical discussion of the constructs developed in this chapter and references to the mathematical literature.

On the use of mathematics in psychological theory see the works of Lewin(205, 207) and the author(39, 40).

The constructs we are developing here for social psychology were first used by Lewin(206) for problems of individual psychology. There is a popular article on topology by Franklin(110). Unfortunately he has little to say about its applications to biological science. The first suggestion of the use of topology for biological problems was that of D'A. Thompson(329) in the field of morphogenesis.

CHAPTER IV

SOCIAL GROUPS AS FIELDS

1. The Problem of the Reality of Groups

Adequacy of Scientific Theory.—In the last chapter we introduced the constructs which we shall use in developing a field-theoretical social psychology. It remains to be shown that such constructs are adequate for describing the genotypes underlying the phenotypical data of sociology and social psychology. An adequate scientific theory should have the following characteristics: (1) It should be economical in that it should be based on the fewest and simplest postulates which will adequately integrate the experiential data. But economy must not be purchased at the price of neglect of facts; the best theories of today are *not* those most easily understood by sophomores. We believe that the field theory fulfills the economy criterion for scientific theory. Only those theoretical constructions are allowed which necessity demands. (2) The best theory should be the only possible theory, *i.e.*, the facts will not be so adequately explained by any other, and any other will contain contradictions. Space does not permit of comparison of field theory with various other modern psychological theories. We believe, however, that, if there is to be theory building at the present time in social psychology, field theory is the only possible theory on the basis of the known experimental evidence. (3) The best theory should be fruitful in the sense of leading to an accumulation of integrated facts. Here perhaps opinion must play a role. The present writer has examined all the numerous psychological theories of the present time and believes the field-theoretical attack to be not only the most promising, but the most productive manner of approaching contemporary problems of social psychology and sociology. (4) The theory must yield postulates to which universal assent may be obtained. If we insist on operational definition and experimental verification or falsification of our postulates, field theory will fulfill this criterion.

For the rest of this chapter and throughout the book we shall demonstrate that at the present time the constructs of field theory most nearly fulfill these characteristics of sound theory.

Gestalt Psychology as Field Theory.—Field theory has been successfully applied for the last quarter of a century to problems of psychology under the name of Gestalt psychology. A few lines about the development of Gestalt psychology and the problems with which it has dealt should enable the lay reader to understand better the central problems of social psychology.

The experimental psychology which arose in the nineteenth century was almost entirely based on the atomistic-mechanistic philosophy of biology. The reader will remember that the basic problem which atomistic-mechanism failed to solve was that of the organization of parts into wholes. He will further remember that the attempt of the vitalists to deal with this problem through the introduction of an unobservable and hence causally unverifiable force like the soul or entelechy was unacceptable to the methodologist. The history of experimental psychology through the last decades of the nineteenth century and the first decade of the present century might well be described as the struggle of the atomistic-mechanists to explain psychological problems without introducing the concept of organization into nature, while the individual discoveries in psychology made the problem of organization more and more important. It was in the field of visual perception that the situation *first* became critical. It was discovered that in order to save the atomistic-mechanistic description of vision more and more *ad hoc* hypotheses had to be introduced.[1] Finally around the year 1912 three very important papers on vision were issued by E. Rubin(290), D. Katz(168), and M. Wertheimer(349). It would take us too far afield to go into these specialized researches into psychological optics in a book on social psychology. All these works were critical. They did not discover so many basic new facts about vision but they showed conclusively that the existing atomistic theories could not possibly explain facts already known.

Wertheimer's paper was probably the most important for he not only saw through the logical inadequacy of existing theory but also suggested the basic tenets of the organismic philosophy. He postulated the existence in nature of at least one psychological event in which the structure or organization is prior to the parts. After finding one such event he and his colleagues naturally enough

[1] An *ad hoc hypothesis* is one especially designed to account for the discrepancy between a basic theory such as atomistic-mechanism and a particular finding which cannot be fitted into the general theory.

began to look for others. They found many. Such in skeleton is the history of the Gestalt theory in psychology. Although the tenets of the organismic philosophy of biology were first introduced by psychologists, their applicability to the whole of biological science was soon seen.[1] The organismic viewpoint was soon realized to be the potential rival of the atomistic-mechanistic. The struggle between these two philosophies continues at the present time. In the original field of research, perception, the prevalent view is that of Gestalt psychology. Much of the psychology of learning is now most readily treated on the basis of Gestalt theory. The theory has made itself felt in the psychology of action and affection. Up to the present time, however, little use of it has been made in sociology and social psychology.

The Problem of Organization in Sociology and Social Psychology. The problem of organization is no new one to the field of social psychology. Exactly the same problems arise as in the field of perception. And the chief existing theories are of the same general nature, namely, based on atomistic-mechanism which is unable to deal with organization, or on vitalism which deals with it in a scientifically unacceptable fashion.

Thus there has arisen the problem of the reality of the social group. Groups are more or less organized, more or less integrated. Do they represent wholes in the sense of Gestalt psychology? Or may we understand them atomistically as the mere sums of their parts? The problem of the reality of the group is the problem which will best illustrate the atomistic-mechanistic and the vitalistic viewpoints in social psychology and more readily demonstrate the adequacy of our theoretical constructs. The problem of the reality of the group was indistinguishable in social-psychological writing until recently from the problem of the group mind. Let us turn to it.

2. The Group-mind Hypothesis

Academic social psychology, which arose in the latter part of the nineteenth century as a border-line discipline of sociology and psychology, has been concerned through its brief history with one very important controversy, namely, the controversy over the reality or lack of reality of the group mind.[2] The controversy over

[1] *Cf.* the works of Woodger(366) and von Bertalanffy(21).

[2] Methodologically the "group mind" as it is called by McDougall(217) plays, as I hope to show, the same role as LeBon's(185) "collective mentality,"

the group mind is, as a matter of fact, a special question of the larger controversy between psychology and sociology concerning the reality of social groups and hinging on the general problem of whether sociology or psychology was to be looked on as the basic social science. Some psychologists have always felt that it is the province of their science to deal with human behavior in all its aspects. On the other hand certain sociologists have insisted not only on the reality but on a certain priority of social groups as showing forms of behavior which could be handled only in terms of a separate science. The question, "Are groups real entities (in a methodological sense) which cannot be explained from the psychology of the individuals composing them, or are they to be so explained?" is even today much debated.

The question as posed is rather a meaningless one. The problem disappears, as we shall see, when we look on groups from the point of view of field theory. Before we do this in detail, let us state certain facts which would, we think, be granted by all investigators. That individuals do exist in social groups is indisputable.[1] Equally indisputable is the fact that individuals are molded in their tastes, aims, manners, and morals by the social group into which they happen to be born, by the groups in which they obtain *membership-character* during their lifetime. On the other hand, man is a biological species. The human nervous system and its mode of functioning impose limitations on the modification of human behavior by a social group. In perception, for instance, there is the range of perceptual sensitivity, in cognitive behavior the limitations imposed by the individual's intelligence quotient, in motor behavior the limitations imposed by physiological fatigue and such factors. It will not be our purpose here to say exactly what limitations are placed on the modifiability of human behavior by the fact that man belongs to the species *Homo sapiens*. One thing is certain: *these limitations are not so great as previous thinkers have believed.* A single example must

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Durkheim's(89) and Lévy-Bruhl's(196) "representations collectives," etc. Although all adherents of the "group-mind" theory pretend to be "organismic" in their attack they actually represent a spurious form of the organismic concept. The "group mind," as we shall show, is a vitalistic rather than a configurational type of theory and hence represents no real advance from the atomistic-mechanistic sociology of the eighteenth century, *i.e.*, the theory of social contract.

[1] Groups may even have evolved as groups; certainly no one today holds the "social contract" theory in any form. *Cf.* Kunkel(177).

suffice. The earlier investigators believed that the intelligence quotient was completely determined in the germ plasm. Recent researches have indicated that very modest changes in the environment (what we should call the social-psychological surrounding field) are able to change the I.Q. by an appreciable amount. What a really radical change in the environment might do is a problem for the future. But it seems increasingly likely that the old heredity-environment dichotomy is meaningless. Biological scientists have already changed the wording of the question, "How much is due to heredity, how much to environment?" to the question, "To what extent can environment modify heredity?" We believe that the biological science of the future will speak of what we now call hereditary traits as the resultants of the embryological field structure. Resultants of the embryological field are now very constant because we have not the ability to manipulate forces in the embryological field. It is by no means certain that we shall never have this ability. Since in many important ways the environment is changed by group factors we cannot neglect the influence of the groups for any problem. The chief findings of modern biological research all indicate that *any attempted isolation of the individual from the group or consideration of the group as independent of the individuals composing it is impossible.* Neither psychology nor sociology may be looked on as autonomous sciences. If there is a basic social science, it will be called social psychobiology.

We may now see why the problem of the group mind had to arise as a particular problem of social psychology. Since the social group determines to a large extent the individual's goals and beliefs and hence his behavior, it is necessary to set up some concept to represent those beliefs and goals, which are shared in common by the individuals in the group. The sociologically minded writers have filled this need with the concept of the group mind. Although the definition of the group mind varies with different writers, methodologically it always plays the same role. It is a class concept, having the properties of an entelechy rather than a vector—something superimposed on the mind of the individual. This superimposition occurs automatically when, and only when, the individual enters the group.

Now, for reasons which should be obvious to the reader, certain psychologically minded writers have denied the existence of any such mechanism over and above the individual minds within the

group. They have said that the group mind represents the positing of unobservable and intangible forces very much like the *élan vital* of the vitalist. In this criticism they are certainly right. But here again we meet the problem with which we started—that of organization. The individual's attitude is affected by his belonging to groups. Organization cannot be explained by a social-psychological atomism. Denying a problem does not solve it. Here again recent researches rather than making the problem of organization seem less important have made it seem more so. On the other hand, postulates like the group mind are class concepts and hence not "good" scientific theory. The problem of the group mind is an integral part of the controversy as to whether sociology or psychology is the basic science. It is even to be looked on as a part of the larger problem of organization in nature and the debate between the atomistic-mechanists and the vitalists. The atomistic-mechanists do not meet the problem of organization, and the vitalists solve it in a completely spurious fashion. The exponents of group mind are to be reckoned with the vitalists. The psychologists who deny it are to be reckoned with the atomistic-mechanists.

In order to clarify the critical analysis of the methodological role of the group mind let us present briefly the views of LeBon(185), McDougall(217), and Freud(113) on this topic. We single them out as writers each of whom has learned from his predecessor and who have gradually more and more approached the method of field-theoretical analysis. No one of them, however, has finally arrived at it and we shall criticize each view after presentation. Then we shall give a field-dynamical analysis of the process of a "crowd" turning into a "mob." This analysis will point out the methodological advances of the field-theoretical approach and allow us to see our constructs applied to a concrete problem.

LeBon's Theory.—Probably the nineteenth-century social psychologists produced no single work which has been so widely read and has had so great a general influence as LeBon's *The Crowd* (185). His general theory may perhaps best be presented in the form of a series of quotations from his work.

The whole of the common characteristics with which heredity endows the individuals of a race constitute the *genius of the race.* When, however, a certain number of these individuals are gathered together in a crowd for purposes of action, observation proves that, from the mere fact of their being assembled, there result certain new psychological characteristics,

which are added to the racial characteristics and differ from them at times to a very considerable degree. [Page 5; italics ours.]

Under certain given circumstances, and only under those circumstances, an agglomeration of men presents new characteristics *very different from those of the individuals composing it.* The sentiments and ideas of all the persons in the gathering take one and the same direction, and their conscious personality vanishes. A *collective mind is formed,* doubtless transitory, but presenting very clearly defined characteristics. The gathering has thus become what, in the absence of a better expression, I will call an organized crowd. It forms a single being, and is subjected to the *law of the mental unity of crowds.* [Page 26; italics ours.]

The most striking peculiarity presented by a psychological group is the following. Whoever be the individuals that compose it, however like or unlike be their mode of life, their occupations, their character, or their intelligence, the fact that they have been transformed into a group puts them in possession of a sort of collective mind which makes them feel, think, and act in a manner quite different from that in which each individual of them would feel, think, and act were he in a state of isolation. There are certain ideas and feelings which do not come into being, or do not transform themselves into acts except in the case of individuals forming a group. The psychological group is a provisional being formed of heterogeneous elements, which for a moment are combined, exactly as the cells which constitute a living body form by their reunion a new being which displays characteristics very different from those possessed by each of the cells singly [page 29].

LeBon believes that there are three predisposing causes which distinguish a crowd from a mere agglomeration of individuals. Again we allow LeBon to speak for himself:

The first is that the individual forming part of a group acquires, solely from numerical considerations, a sentiment of invincible power which allows him to yield to instincts which, had he been alone, he would perforce have kept under restraint. He will be the less disposed to check himself from the consideration that, a group being anonymous, and in consequence irresponsible, the sentiment of responsibility which always controls individuals disappears entirely [page 33].

The second cause, which is contagion, also intervenes to determine the manifestation in groups of their special characteristics, and at the same time the trend they are to take. Contagion is a phenomenon of which it is easy to establish the presence, but that it is not easy to explain. It

must be classed among those phenomena of a hypnotic order, which we shall shortly study. In a group every sentiment and act is contagious, and contagious to such a degree that an individual readily sacrifices his personal interest to the collective interest. This is an aptitude very contrary to his nature, and of which a man is scarcely capable, except when he makes part of a group [page 33].

A third cause, and by far the most important, determines in the individuals of a group special characteristics which are quite contrary at times to those presented by the isolated individual. I allude to that suggestibility of which, moreover, the contagion mentioned above is only an effect.

To understand this phenomenon it is necessary to bear in mind certain recent physiological discoveries. We know to-day that by various processes an individual may be brought into such a condition that, having entirely lost his conscious personality, he obeys all the suggestions of the operator who has deprived him of it, and commits acts in utter contradiction with his character and habits. The most careful investigations seem to prove that an individual immersed for some length of time in a group in action soon finds himself—either in consequence of the magnetic influence given out by the group, or from some other cause of which we are ignorant—in a special state, which much resembles the state of fascination in which the hypnotised individual finds himself in the hands of the hypnotiser. . . . The conscious personality has entirely vanished; will and discernment are lost. All feelings and thoughts are bent in the direction determined by the hypnotiser.

Such also is approximately the state of the individual forming part of a psychological group. He is no longer conscious of his acts. In his case, as in the case of the hypnotised subject, at the same time that certain faculties are destroyed, others may be brought to a high degree of exaltation. Under the influence of a suggestion, he will undertake the accomplishment of certain acts with irresistible impetuosity. This impetuosity is the more irresistible in the case of groups than in that of the hypnotised subject, from the fact that, the suggestion being the same for all the individuals of the group, it gains in strength by reciprocity [page 34].

We see, then, that the disappearance of the conscious personality, the predominance of the unconscious personality, the turning by means of suggestion and contagion of feelings and ideas in an identical direction, the tendency to immediately transform the suggested ideas into acts; these, we see, are the principal characteristics of the individual forming part of a group. He is no longer himself, but has become an automaton who has ceased to be guided by his will. [Page 35; this and the above passages from Gustave LeBon, *The Crowd*, T. Fisher Unwin, London 1917.]

LeBon's use of the phrase "collective mind" shows clearly that he is thinking in terms of a class theory. From an empirical study of crowds he abstracts certain of their behavioral properties and when a group assumes these properties, he considers the behavior explained when he says: the individual mind has been replaced by the "collective mind." He is hence thinking in dichotomies. Furthermore, LeBon's own political faith is that of the aristocrat, and he deplores the "age of crowds." Consequently, he uses valuative concepts. His method is empirical, *i.e.*, he has observed some crowds and read of many more, rather than being hypothetico-deductive. The collective mind is a substantial concept. We shall further criticize his theory of contagion and suggestibility in the next chapter.

McDougall's Theory.—McDougall's *The Group Mind*(217) represents a decided advance in the treatment of social groups because after treating the temporary crowd in a manner quite similar to LeBon he gives serious consideration to the problem of organized groups.

In the first place McDougall goes a step further than LeBon regarding the "wholeness" of groups. He states:

> For the aggregate which is a society has, in virtue of its past history, positive qualities which it does not derive from the units which compose it at any one time; and in virtue of these qualities it acts upon its units in a manner very different from that in which the units as such interact with one another. Further, each unit, when it becomes a member of a group, displays properties or modes of reaction which it does not display, which remain latent or potential only, so long as it remains outside that group. It is possible, therefore, to discover these potentialities of the units only by studying them as elements in the life of the whole. That is to say, the aggregate which is a society has a certain individuality, is a true whole which in great measure determines the nature and the modes of activity of its parts; it is an organic whole. The society has a mental life which is not the mere sum of the mental lives of its units existing as independent units [page 7].

But the dichotomy between the individual and the group remains because: "The group as such is more than the sum of the individuals" and "has its own life proceeding according to the laws of group life," *but* these "*are not the laws of individual life.*" Furthermore he still accepts the hypothesis of collective mentality.

We may fairly define a mind as an organized system of mental or purposive force; and, in the sense so defined, every highly organized human society may properly be said to possess a collective mind. For the collective actions which constitute the history of any such society are conditioned by an organization which can only be described in terms of mind, and which yet is not comprised within the mind of any individual; the society is rather constituted by the system of relations obtaining between the individual minds which are its units of composition. Under any given circumstances the actions of society are, or may be, very different from the mere sum of the actions with which its several members would react to the situation in the absence of the system of relations which render them a society; or, in other words, the thinking and acting of each man, in so far as he thinks and acts as a member of society, are very different from his thinking and acting as an isolated individual [pages 9–10].

While his treatment of the simple crowd is like LeBon's his treatment of organized groups makes a real advance. The simple crowd is:

. . . excessively emotional, impulsive, violent, fickle, inconsistent, irresolute and extreme in action, displaying only the coarser emotions and the less refined sentiments; extremely suggestible, careless in deliberation, hasty in judgment, incapable of any but the simpler and imperfect forms of reasoning; easily swayed and led, lacking in self-consciousness, devoid of self-respect and of sense of responsibility, and apt to be carried away by the consciousness of its own force, so that it tends to produce all the manifestations we have learnt to expect of any irresponsible and absolute power. Hence its behaviour is like that of an unruly child or an untutored passionate savage in a strange situation, rather than like that of its average member; and in the worst cases it is like that of a wild beast, rather than like that of human beings [page 45].

There are five conditions of principal importance in raising collective mental life to a higher level than the unorganised crowd can reach, no matter how homogeneous the crowd may be in ideas and sentiments nor how convergent the desires and volitions of its members. These are the principal conditions which favour and render possible the formation of a group mind, in addition to those more fundamental conditions of collective life which we have noted in the foregoing chapter.

The first of these conditions, which is the basis of all the rest, is some degree of continuity of existence of the group. The continuity may be predominantly material or formal; that is to say, it may consist either in the persistence of the same individuals as an intercommunicating group, or in the persistence of the system of generally recognized positions each of which is occupied by a succession of individuals. Most permanent groups exhibit both forms of continuity in a certain degree; for, the

material continuity of a group being given, some degree of formal continuity will commonly be established within it. The most highly organized groups, such as well-developed nations, exhibit both forms in the highest degree.

A second very important condition, essential to any highly developed form of collective life, is that in the minds of the mass of the members of the group there shall be formed some adequate idea of the group, of its nature, composition, functions, and capacities, and of the relations of the individuals to the group. The diffusion of this idea among the members of the group, which constitutes the self-consciousness of the group mind, would be of little effect or importance, if it were not that, as with the idea of the individual self, a sentiment of some kind almost inevitably becomes organized about this idea and is the main condition of its growth in richness of meaning; a sentiment for the group which becomes the source of emotions and of impulses to action having for their objects the group and its relations to other groups.

A third condition very favourable to the development of the collective mind of a group, though not perhaps absolutely essential, is the interaction (especially in the form of conflict and rivalry) of the group with other similar groups animated by different ideals and purposes, and swayed by different traditions and customs. The importance of such interaction of groups lies chiefly in the fact that it greatly promotes the self-knowledge and self-sentiment of each group.

Fourthly, the existence of a body of traditions and customs and habits in the group determining their relations to one another and to the group as a whole.

Lastly, organization of the group, consisting in the differentiation and specialization of the functions of its constituents—the individuals and classes or groups of individuals within the group. This organization may rest wholly or in part upon the conditions of the fourth class, traditions, customs, and habits. But it may be in part imposed on the group and maintained by the authority of some external power. [Pages 49–50; This and the above passages are from W. McDougall, *The Group Mind*, G. P. Putnam's Sons, New York, 1920.]

McDougall's treatment of the group mind then represents a definite step toward a more scientific analysis, but one which still retains most of the earmarks of a class theory. The "group mind" and "group purpose" are *class-determined entelechy concepts*. The analysis remains substantial and the thinking is in terms of dichotomies and valuative concepts. McDougall, however, in considering the organized group definitely enlarged the concept of group behavior. His dichotomies are also less marked and his use of valua-

tive concepts less blatant than LeBon's. But withal McDougall is a class theorist.

Freud's Theory.—The thinker on the subject of group psychology who most nearly overcame the dichotomy between the individual and the group was Sigmund Freud(113). In his important work *Group Psychology and the Analysis of the Ego*, Freud states:

> The contrast between Individual Psychology and Social or Group Psychology, which at a first glance may seem to be full of significance, loses a great deal of its sharpness when it is examined more closely. It is true that Individual Psychology is concerned with the individual man and explores the paths by which he seeks to find satisfaction for his instincts; but only rarely and under certain exceptional conditions is Individual Psychology in a position to disregard the relations of this individual to others. In the individual's mental life someone else is invariably involved, as a model, as an object, as a helper, as an opponent, and so from the very first Individual Psychology is at the same time Social Psychology as well—in this extended but entirely justifiable sense of the words. [From S. Freud, *Group Psychology and Analysis of Ego*, International Psychoanalytical Library, London, 1922, pages 1–2.]

Freud then develops his own theory of group behavior on the basis of psychoanalytic mechanisms. We shall return to the Freudian theory in Chap. XVI. Here, for the sake of completeness, let us merely say that Freud's treatment of the crowd represents a real scientific advance.

The dichotomy between crowd behavior and individual behavior practically disappears. Freud is remarkably scientific in his lack of valuative concepts and dichotomies. He uses (but inadequately) the hypothetico-deductive method. He posits nothing over and above the individual minds to explain group behavior but explains it instead on the basis of libidinal attachments between the members of the group. He points out that despite the orthodox opinion panics and mobs are dynamically very opposed types of social phenomena. But Freud's *use of the libido concept is to be classified as class as opposed to field theory.*

3. Field-theoretical Analysis of a Definite Case

A. Phenotypic description (language of data).[1]—In the year 1918, a crowd is gathered in front of the newspaper office in an American

[1] I submit a fictitious case in order to illustrate certain points of the method. Many such events did occur in 1917–1919.

town. In this group, feeling somewhat socially isolated, is Johann Schmidt. (Born in 1870 in Mannheim, Germany, he came to the United States in 1900, and has lived industriously and quietly as a grocer in this town, a decent citizen belonging to the Lutheran Church, etc.) At the present time Schmidt is under surveillance of the Department of Justice, must report at certain times, cannot go to certain places, etc. Previously he has been on friendly terms with all the members of the group. Today he retains a speaking acquaintance with most of them, but he is regarded suspiciously. He is also waiting for bulletins on the outcome of the hostilities. A new bulletin goes up: "The Troop-ship ———— has been sunk by a German submarine with the loss of 400 American soldiers." There is much conversation and an individual starts haranguing, "This fellow Schmidt I think at heart sympathizes with the Kaiser." Schmidt has withdrawn and has started for his store. "Let's show him that America means business." "Come on, what are you guys afraid of?" "Maybe some of our local boys were on that troopship." "The dirty Huns." The crowd, now a mob, starts towards Schmidt's store Bricks are thrown through Schmidt's windows. He is called unprintable names. Some one says, "Schmidt's all right, he can't help it, he's really an American." This someone gets someone else's fist on his nose. "You're a Hun too." "Oh no, I'm not." And to prove that he is not, Schmidt's one defender throws a last brick. Schmidt's store is ruined, and the mob goes home.

B. Genotypic description (language of constructs).—The crowd gathered before the newspaper office is ordered to a social field of fairly high freedom, where the potency of national membership-character is relatively low[1] and the outer barrier relatively permeable. Under such conditions Schmidt has membership-character in the group. By membership-character the reader will remember that we mean the social-psychological characteristics which accrue to the individual by virtue of his belonging to the group. Potency of membership-character refers to the social-psychological importance of belonging to this group relative to other groups. The permeability of boundaries refers to the relative ease with which locomotions into the group as a social field may be made, and degree of freedom of social locomotion to the relative number of locomotions possible

[1] With respect to the second field structure only. In this fictional case we are not justified in assigning any definite index figures.

within the group as a social field.[1] The individuals psychologically have other membership-characters. They are Protestants and Catholics, owners and workers, as well as Americans. They may even be entertaining mild pacifist tendencies, thinking of war as a mistake or unfortunate. Thus from a social-psychological standpoint there is fluidity and a relatively high degree of freedom of social locomotion. The national membership-character is still the most potent. The outer barrier is relatively permeable. Individuals may enter or leave the group easily. The field is characterized in Fig. 13. The field is organized with respect to national membership-character.

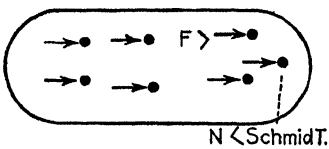


FIG. 13.—Showing the field structure of the crowd. $F >$, relatively high freedom of social locomotion (see Fig. 14); $N <$, relatively low potency of national membership-character (see Fig. 14).

Whenever an organized whole is subjected to pressure from without so that a temporary equilibrium is upset there is a tendency to restructurize the organization in such a way that equilibrium may be re-established. Thus the potency of national membership-character is increased; with it the concomitant fall in fluidity and degree of freedom of social locomotion. Outer-barrier permeability, at least for leaving the group, is severely diminished. Under these circumstances, Schmidt may no longer retain membership-character in the field. He must be ordered to a separate bounded region. The tensional situation of the field before the war becomes restructured, so that the individuals within the field are driven by lines of field force toward Schmidt as the goal. Under the field conditions of high degree of freedom of social locomotion, these vector forces were in the direction of the news as the goal. In the dynamical situation of higher freedom of social locomotion kind words about Schmidt are possible. Under the lowered freedom they are not. This is shown in Fig. 14. The transition from the situation of Fig. 13 to the situation of Fig. 14 is a temporal process of restructurization which cannot be diagrammatically represented in its temporal dimension except possibly cinematographically. The problem of

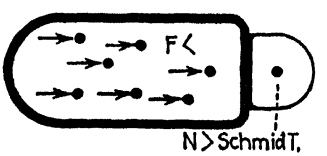


FIG. 14.—Showing the field structure of the mob. $F <$, relatively low freedom (see Fig. 13); $N >$, relatively high potency (see Fig. 13).

[1] *Cf.* the definitions in Chap. III.

the change in Schmidt's personal psychological field cannot be handled in an analysis which considers the individual as a point-region. This aspect of the social-psychological problem must be postponed until Part III.

A description in terms of the underlying genotype allows us to deduce the phenotypical behavior of the group by the logic of dynamics. The variation in membership-character which is possible in the first situation is not possible in the second. From this follows the inability of any individual to support Schmidt and still retain membership-character with the group in the second situation. The boundary separating Schmidt in the second situation is a social one without physical concomitant. In terms of the dynamics of social fields, the situation is genotypically the same in the case of a lynching. When a mob storms a jail in a lynching, however, the barrier has a physical concomitant. This barrier requires greater tension to be penetrated. This may account for the more brutal outcome of the lynching.

It should be obvious that such an analysis does fulfill the criteria set up for the field-theoretical approach.

Furthermore, we believe it fulfills the criteria for a sound theoretical approach in general. The constructs of the field are the simplest which will scientifically allow us to gain insight into the problem. The theory is the only possible theory which allows us to explain the behavioral differences between the crowd and the mob without recourse to dichotomies or the introduction of unobservable causal factors. The analysis which we have made of the crowd and the mob will help us integrate other facts of social psychology. Eventually such a theoretical approach should gain universal assent for its postulates.

4. Prerequisites to Field-dynamical Analysis

The above case should help clarify the methodological problems of the last three chapters. It is perhaps worth our while briefly to summarize this methodology and again emphasize its necessary steps.

Summary of Methodological Principles.—The basic idea behind the method of field dynamics (*i.e.*, the combination of the hypothetico-deductive method with the language of constructs) is that one may construct genotypic descriptions to which phenotypic descriptions may be ***ordered.*** If the construct is adequate to the

data at hand, one may logically derive what subsequent experience will be. One may predict the future on the basis of the existing structure of the genotype. Furthermore, one may understand the present through this ordering, and if one understands the laws of temporal change in the structure of the genotypes, one may also explain how the past has developed into the present. Causation in a theory of field dynamics is always simultaneous, however, from the underlying genotype to the existent phenotype. For every change in the phenomenology of experience there is a change in the structure of the underlying dynamic field. Consequently, "explanation" of the present from the past or "prediction" of the future from the present requires a knowledge of temporal processes in the underlying field. These processes themselves are to be looked on as *ahistorical-typical.* The reader will remember in ahistorical-typical laws that when the laws (genotypes, underlying dynamics) are well enough known to allow measurement, one can predict the future quite independently of the past. Although it is true that the past and future are implicit in the idea of a vector, such use of "time" is to be sharply distinguished from "time" in the historical sense. In modern physics time becomes one dimension of the space-time manifold. The constructs hence include a temporal dimension, and when the physicist can manipulate events in this dimension, history as popularly understood becomes a matter of indifference to the physicist. When we characterize the field theory as *ahistorical* it does not mean that temporal change is of no importance to us but rather that what we must know of time is included in the *construct* of the field.

It is important to point out that the biology and sociology of the nineteenth century were concerned primarily with attempts to understand existent nature, while nineteenth-century physics was concerned with the *manipulation* of the forces of nature in order to use them. Instead of investigating physical systems under "natural" conditions alone, the physicist has always created situations which are "unnatural" in that they are not commonly found in nature before physical manipulation. It is to such manipulation that we owe electric refrigeration, the radio, the airplane, in fact all the boons of applied physics. Readers familiar with the outlines of the development of thermodynamics or electromagnetism in the nineteenth century will readily see what is meant by this manipulation.

While the physicist may perform the manipulation, without which the measurements necessary to prediction cannot be made, the social psychologist, for quite obvious reasons, has not been able to do so. This means that we cannot hope, at least in the near future, to arrive at anything like the quantitative precision of the physicist. If we clearly realize this type of limitation, however, it should help us to define what type of social behavior can most profitably be studied by a field-dynamical approach. It may have already occurred to some of our readers that it would be worth while to look for cases where nature herself is manipulating social forces in such a way that the *degree of freedom* of social activity is very much limited in its direction (under dictatorship, for instance) and to compare these with other cases where social forces have a considerable *degree of freedom* (upper-class social behavior in liberal democracies). In other words, one must attempt to find existing social situations which in their own inherent dynamics present the prerequisites of "control."

Some social situations, we believe, may be characterized dynamically so that one can definitely limit the possibilities of future activity even if one cannot make quantitative, directional predictions. We believe that one can further show the logical (in the sense of dynamics) necessity for certain associated phenomena, such as the decline in individual freedom under a collectivistic political structure, the greater religious discipline of the Catholic and the dogma of infallibility, the position of women under fascism, and the position of women under communism. One can further show that questions like "Why can we not have the advantages of Hitlerian cooperation combined with the freedom of the press, pulpit, and speech?" or "Why can we not proceed to socialism through education and the ballot?" are meaningless in that they contain contradictions when examined according to the logic of social dynamics.

We must, then, limit our ambitions. We shall be content for the present to point out certain necessary relationships between underlying dynamic fields and social phenomena. Our predictions beyond those of necessary relationships will be concerned only with direction rather than amount of social change. In the constructive method, mathematics is essential.

Modern physics is based on a mathematics which deals with both direction and magnitude. The constructs of field theory are topological and non-metricized-dynamical but if their precision is not so

great as that of physics their validity is of the same kind. We are finally ready to apply these constructs to the problems of social psychology. The last chapters have not been easy. We have been forced to consider some of the most difficult problems of scientific theory and philosophy of science. It is to be hoped that the reader will find the analysis of the following chapters sufficient reward for the methodological study which of necessity preceded them.

The next chapter will introduce the reader to some of the persistent problems of social psychology and give him some idea of the solutions proposed by the writers of the atomistic-mechanistic and vitalist schools. Whether or not field-theoretical analysis makes an advance over these approaches must be finally decided by the reader. The author believes that it does and hopes to bring the reader to this conviction.

5. Summary

1. In this chapter we have been chiefly interested in showing that the field-theoretical approach to the problems of social psychology was not only methodologically sound but scientifically adequate. The problem of the reality of the group in social psychology is nothing but a special instance of the problem of organization in nature. The same basic problem which bothered psychologists working in the field of perception and learning gained the attention of the social psychologists as the problem of the reality of the group.

2. The discussion of the group-mind hypothesis showed us that the atomistic-mechanists in sociology failed to meet the problem of organization, while the proponents of the group mind met it in a spurious fashion (vitalism). A discussion of the works of LeBon, McDougall, and Freud showed us the gradual transition from the class-theoretical position to an approach to the field-theoretical position regarding the organization of groups.

3. The analysis of a specific social-psychological event indicated the scientific adequacy of the field-theoretical mode of attack.

4. We gave a brief résumé of the chief findings of the last three chapters.

Bibliographical Note

The older debate between the adherents of the sociological and psychological positions has been admirably summarized by Karpf(166). A briefer discussion with references to the contestants may be had from Folsom(107). The treatment of the group as a social field is handled by Koffka(175), Lewin(206), and

Wheeler(352). The present work represents the first attempt at a strictly field-theoretical social psychology.

The general references to atomistic-mechanism, vitalism, and the organismic philosophy were given in Chap. II. Besides LeBon(185), McDougall(217), and Freud(113), whose works we treated briefly, the following have dealt with the idea of the group mind: Sighele(302), Fouillée(108), Durkheim(89), and Lévy-Bruhl(196). These are all older treatments. One of the most widely read modern treatments which develops the theories of LeBon and Freud particularly is that of Martin(229).

Since this book was completed Bentley's *Behavior, Knowledge, Fact*(18) has appeared. This work is of the first methodological significance and treats of the problem of the reality of the social group in a manner very similar to our treatment. It is rich in methodological insights applicable to this whole section. Had Bentley's book appeared sooner, much of the argument of the last two chapters could have been done by reference to it.

CHAPTER V

SOME PERSISTENT PROBLEMS OF SOCIAL PSYCHOLOGY

1. The Scope of the Present Treatise Compared with Others

Were there any large agreement between social psychologists as to what constituted either the methods or the problems of our young science, much apology and explanation would be in order concerning the scope of this book. We shall have to speak at some length of many methods and theories which are usually dismissed with a brief reference or not mentioned at all in the standard textbooks on our subject. On the other hand we shall omit all consideration of many problems which other writers have considered essential in such a text. An examination of the various texts and program papers of social psychologists, however, would convince us that there is no real standardization regarding even the definition of social psychology and that there has always been considerable debate concerning the scope of its methods and problems. This chapter will present certain selected methodological viewpoints and the most frequently discussed problems, and criticize both from the standpoint of the theory of the social field. This material must of necessity be highly selective. There is an immense literature covering the problems which pertain to social psychology. There are many theories about social behavior. One may even speak of schools of social-psychological thought. Recently Karpf(166) has published a large book devoted solely to the *history* of American social psychology. Consequently all we may do is to present several of the most persistent problems and their better known attempted solutions. Despite the lack of general agreement between social psychologists, our presentation of the subject may well be looked on as very radical. It is only fair to the reader to point out in what this radicalism consists. To this end it will be necessary to discuss why large portions of the present treatise are concerned with matters not ordinarily associated with social psychology, and why other

matters prevalently discussed in books of this general nature are omitted.

The inclusion of rarely included material, on the one hand, and exclusion of frequently included material, on the other, have been made necessary both from methodological reasons and from lack of space. The methodological considerations already outlined in the first chapter will force us to devote considerable space to the border fields of economics, social anthropology, and psychoanalysis. The reader is reminded that for a real understanding of human behavior, one must consider man as a socio-psycho-biological organism. Economics and social anthropology are of the greatest importance in understanding the social factors in the psychological field. Furthermore, we have as yet no means of building a completely ahistorical theory of psychological behavior. Therefore we must also take the individual's history as investigated by psychoanalysis into consideration for all problems where difference in the structure of the person is of importance. Finally we must save some space for a consideration of the political organization under which the individual lives. Recent events have shown this factor to be of very great social-psychological importance.

This preoccupation with economic, political, and psychoanalytical material forbids any detailed separate discussion of the problems of social learning, speech acquisition, personality traits and their measurement, the psychology of the crowd and audience, propaganda, speculations concerning the underlying physiology of social behavior, and the results of so-called experimentation in the field. Many aspects of these particular problems will be discussed by us of course, in connection with other topics.

In this chapter we shall deal briefly with certain of them from the standpoint of a field-theoretical analysis and give something of our reasons for completely omitting the others. Our chief purpose in writing this book has been to make the beginnings of an attack on the problems of social psychology from the standpoint of field theory. How necessary this is will be indicated by the prevalence of class-theoretical analyses in our science. We have seen something of this in Chap. II. In the present chapter we shall see much more of it.

Transition to a Field-theoretical Social Science.—In making a break with the more conservative types of social-psychological research, we by no means imply that such attacks were not necessary, nor do we wish to belittle the work of a long line of distinguished

predecessors. It is obvious that a certain amount of classification is necessary in the early stages of any science.[1] Before the phenomena may be explained, or perhaps we should say described, genotypically, they must be described phenotypically. This is true of the early development of all sciences. From the time of the early Ionic cosmologists to the theoretical physicists of the twentieth century, one may trace in the physical sciences the gradual replacement of purely structural, substantial, class-theoretical, descriptive concepts with functional, field-theoretical ones. Thus in modern times the science of chemistry has gradually, through physical chemistry, been changed from a descriptive classificatory science to a functional one. And in physics itself the descriptions of various forms of physical activity—mechanics, sound, heat, light, electricity —have been shown in turn to be various phenotypical appearances of the basic genotype of energy. The process, even in the physical sciences, is by no means complete. There are no physicists cognizant of their science's history who do not admit this trend.

This transition from Aristotelian to Galilean thinking,[2] from description by classification to "explanation" in terms of theoretical constructs, is only beginning in biological science. Anatomy and to a large extent comparative anatomy may be looked on as finished sciences. Until the middle of the nineteenth century taxonomic classifications based chiefly on morphology were about all there was to biological science. In that century physiology got a good start, the first general theories of evolution were set up, and the science of genetics started. Schleiden, among others, felt the need of a functional biology when he said, "I believe a man could be a great botanist without knowing the name of a single plant." The keener philosophers of biology however are forced to admit that Galilean constructs have made little headway in biological science. But there are many signs throughout the biological sciences that the transition may soon be made.[3] That social science is gradually tending towards the field-theoretical will be indicated by a discussion of the role played by instinct and intelligence in human behavior. This discussion will bring us to the point where we may criticize

[1] The next chapter will have something to say concerning classification in science in general.

[2] *Cf.* Lewin(202). In general Aristotelian corresponds to our class-theoretical, Galilean to our field-theoretical.

[3] *Cf.* von Bertalanffy(21), Woodger(366), Koehler(174), Lewin(202).

the instinct theory of social psychology as represented by the important social psychologist, McDougall.

2. Instinct versus Intelligence

The most important earlier concepts for social-psychological problems were those of instinct and intelligence. Recently the value of both concepts has been questioned on methodological grounds. How this occurred should become clear from the following historical account.

Descartes's Views.—We shall begin with Descartes. Descartes was the first great modern to attempt the integration of the physical discoveries of the Galilean age into a systematized picture of the universe. His monumental contributions to mathematical physics will not concern us here, but only his role as the first great modern mechanist in biology and psychology. Descartes, as Fearing(104) has shown, is to be looked on as the father of modern mechanism and the precursor of the reflexologists. In the spirit of his times he was also a vitalist in that he affirmed the soul. Actually, the soul interested him but little and there has always been a great deal of debate among the historians of philosophy as to whether he believed in the soul or simply affirmed it in order to complete his work unharassed by the powerful Catholic Church of his time. The body, however, he considered a reflex machine. The problem of organization he met by his affirmation of the soul. When humans behaved rationally, teleologically,[1] and arrived at their goals, the machine was directed by the human rational soul. But the behavior of animals, which on occasion was also teleological, was for theological reasons difficult of explanation. Reason was given to man by God in the form of the soul and animals could scarcely be assigned souls, particularly at that epoch. So God gave animals instincts which played the same role as souls but which were less rational and had nothing of psychological awareness. From that time to the present the chief characteristics of instinct were laid down. By instinct the biologist has always meant behavior which attains an end (*i.e.*, is teleological), occurs without experience (*i.e.*, is innate), and occurs without foresight into the end. Although recently there has been much debate concerning the origin of instinct, its purposefulness, and its relation to intelligence, its methodological role was established by Descartes. It became with him a mechanism to

[1] Teleological = goal-directed, purposive, toward definite ends.

explain behavior which could not be explained by the rational soul. He did not realize that the rational soul itself explained nothing. Hence, the beasts remained machines without insight or foresight, but equipped with instinct to act teleologically. Now, of course, nothing has been accomplished, from the standpoint of field theory, besides classification. Rational intelligence, directed by the soul, really was an excuse of Descartes's disability to understand the organization of human behavior, just as instinct became his excuse for not understanding the organization of animal behavior.

In Descartes's psychology we have illustrated quite clearly the purest type of class-theoretical explanation of human and animal behavior. His speculations on physics surpassed Aristotle, but his biological explanations were on exactly Aristotle's level.[1] The classes, man and animal, revealed the basic differences in human and animal behavior. The motive forces of intelligence and instinct had the nature of entelechies and hence allowed local determination. These concepts were substantial, the analyses structural, and the method chiefly empirical. The strictest dichotomy existed between man and animals, man was higher, nearer God, hence evaluative concepts were used. Finally the question raised was, "Why behavior?" Descartes's treatment of biophysics may be looked on as the beginning of the Galilean method but his psychology did not go beyond Aristotle's.

The Trend after Descartes.—From Descartes the trend has been a very gradual approach to the field-theoretical view. The first advance was in explaining the origin of both instinct and intelligence on a naturalistic rather than a supernatural basis. While Descartes considered both intelligence and instinct to be given by God, his successors more and more left God out of it. In place of God, gradually, came the concept of heredity. This advance was completed in the nineteenth century, largely through the influence of Darwin's *The Origin of Species*(74). For a long time, however, the methodological role of instinct and intelligence remained as before. Intelligence was considered a human trait and instinct the rough equivalent of this in animals. The question of the origin of both, however, was simply passed by

[1] Except for the beginnings of an atomistic reflexology. The author realizes there is still much lip service paid Aristotle as biologist. He thinks without doubt that the biologist of the next centuries will view Aristotle's biology with as little esteem as the contemporary physicist views the Aristotelian physics.

the psychologists to the biologists. The attempt was made to answer the question of origin by use of the theory of natural selection. But if this theory were to be interpreted to suit the geneticists' demands that no acquired characteristics are inherited, no explanation was possible which had the slightest plausibility. Such behavior as nest building in the mason wasp would then have to arise as a chance variation.

Thus, heredity replaced God as the origin of both instinct and intelligence. This advance was solely toward naturalism, and despite the great work of the nineteenth-century geneticists social behavior remained unexplained as ever.

Human Instinct and Animal Intelligence.—Another step in the direction of field theory occurred with the gradual realization that animals occasionally showed that same type of modifiability in their responses that was called intelligence in humans and, vice versa, that humans sometimes behaved like beasts. So the dichotomy between instinct and intelligence gradually began to disappear. At the present time we are beginning to realize that the distinction of instinct and intelligence is only one of convenience and that both concepts are only useful as descriptions. The transition from behavior which was previously looked on as instinctual to that looked on as intelligent is gradual, not sudden. These different forms of behavior are to be explained by different types of field structure. This newer viewpoint has been chiefly advanced by the Gestalt psychologists and has arisen in the present century. At the present time the antithesis between the insistence of the behaviorists on the one hand that all behavior is of the nature of blind biological urge modified by chance and the insistence of the Gestalt theorists on the other that all behavior has aspects of insight or intelligence, remains to be resolved.

The Present Status of the Problem.—The situation today is that in general the inadequacy of attributing most of animal behavior to the entelechy concept of instinct and most of human behavior to the entelechy concept of intelligence is admitted. Instinct and intelligence become something of functional concepts rather than substantial. The dichotomy between them has chiefly vanished so far as attributing one form of behavior to animals and one to man is concerned. The variations caused by changes in environment on both instinct and intelligence are realized, so that the transition is beginning to be made to a field-theoretical type of explanation.

But, and this is an important *but*, at the present time few biologists and psychologists go so far as to realize that intelligence and instinct are valuable *only* as descriptive concepts. It may still be useful for convenience to classify the relatively stable reaction forms (where field structure is highly constant) as *instinctual* and the relatively modifiable reaction forms as *intelligent*. Explanation will consist in finding out the genotypic description of the field for the various reaction forms. Control of animal behavior will consist in finding to what extent variation in the psychobiological field or variation in the organism may be regulated. In this way the field-theoretical method can make use of the concepts as descriptive. Despite the methodological clarification that has been achieved, instinct and intelligence or equivalent methodological constructs remain as explanatory concepts in practically all systematic treatises on social psychology today.

McDougall's View.—That social reactions are controlled by instinct was a thesis held by nearly every important social psychologist until around 1920. Between Descartes and McDougall much important work had been accomplished and certain methodological clarifications obtained. The language which McDougall uses in speaking of instinct and emotion is quite different from that of Descartes. But in the thinking of both men the instinct plays an identical role. A discussion of McDougall's treatment of instinct from his *Social Psychology*(219) of 1908 should show us the class-theoretical aspects of a social psychology built on the doctrine of social instinct.[1] McDougall's treatment is quite typical of the social psychology of this period.

McDougall defines instinct as follows:

> We may then, define an instinct as an inherited or innate psychophysical disposition which determines its possessor to perceive, and to pay attention to, objects of a certain class, to experience an emotional excitement of a particular quality upon perceiving such an object, and to act in regard to it in a particular manner, or at least, to experience an impulse to such action [page 30].

[1] Since 1908 McDougall has modified and methodologically improved his treatment of instinct twice. In his *Outline of Psychology*(218) he has added to his list and more recently in *The Energies of Men*(220) he has clarified the problem by a redefinition of the concept and a renaming of the force "instinct" as the force "propensity." We discuss the older book as better known. Our critique would be just as applicable to the newer treatments.

Thus McDougall has overcome completely the dichotomy of Descartes between human and animal behavior. The higher animals at least may have consciousness of their instinctive acts. But the innate nature of instincts remains, as is clearly shown in the following passage:

> The human mind has certain innate or inherited tendencies which are the essential springs or motive powers of all thought and action, whether individual or collective, and are the bases from which the character and will of individuals and of nations are gradually developed under the guidance of the intellectual faculties. These primary innate tendencies have different relative strengths in the native constitutions of the individuals of different races, and they are favoured or checked in very different degrees by the very different social circumstances of men in different stages of culture; but they are probably common to the men of every race and of every age. If this view, that human nature had everywhere and at all times common native foundation, can be established, it will afford a much-needed basis for speculation on the history of the development of human societies and human institutions. For so long as it is possible to assume, as has often been done, that these innate tendencies of the human mind have varied greatly from age to age and from race to race, all such speculation is founded on quicksand and we cannot hope to reach views of a reasonable degree of certainty.
>
> The evidence that the native basis of the human mind, constituted by the sum of these innate tendencies, has this stable unchanging character is afforded by comparative psychology. For we find, not only that these tendencies, in stronger or weaker degree, are present in men of all races now living on the earth, but that we may find all of them, or at least the germs of them, in most of the higher animals. Hence, there can be little doubt that they played the same essential part in the minds of the primitive human stock, or stocks, and in the pre-human ancestors that bridged the great gap in the evolutionary series between man and the animal world [pages 20–21].

McDougall is searching for the component factors of human nature. In other words he is attempting to set up the characteristics common to a class under all circumstances. These characteristics he finds first in the specific tendencies or instincts and secondly in general or non-specific innate tendencies. There are seven specific instincts associated with emotions as follows:

INSTINCT	EMOTION
Flight	**Fear**
Repulsion	**Disgust**

Curiosity	Wonder
Pugnacity	Anger
Self-abasement	Subjection
Self-assertion	Elation
Parental	Tender

There are further certain instincts without definite emotional affinities. These are the instincts of reproduction, gregariousness, acquisition, and construction.

The non-specific innate tendencies, also called pseudo-instincts, include suggestion, imitation, sympathy, of which we shall have more to say later, and certain universal tendencies of mind such as to repetition and to play.

Besides these innate forces there are derived sources of social behavior in social habits but "Habits are formed only in the service of the instincts." Reason and intelligence too modify the behavior activated by instinct but in themselves they are of no motive force. McDougall's position may be summarized in his own words:

> We may say, then, that directly or indirectly the instincts are the prime movers of all human activity; by the conative or impulsive force of some instinct (or of some habit derived from an instinct), every train of thought, however cold and passionless it may seem, is borne along towards its end, and every bodily activity is initiated and sustained. The instinctive impulses determine the ends of all activities and supply the driving power by which all mental activities are sustained; and all the complex intellectual apparatus of the most highly developed mind is but a means toward these ends, is but the instrument by which the instinctive impulses seek their satisfactions, while pleasure and pain do but serve to guide them in their choice of the means.
>
> Take away these instinctive dispositions with their powerful impulses and the organism would become incapable of activity of any kind; it would lie inert and motionless like a wonderful clockwork whose mainspring had been removed or a steam-engine whose fires had been drawn. These impulses are the mental forces that maintain and shape all the life of individuals and societies, and in them we are confronted with the central mystery of life and mind and will. [Pages 45–46; this and the above passages from W. McDougall, *An Introduction to Social Psychology*, John W. Luce & Company, Boston, 1926.]

I believe that it should be quite obvious that McDougall's attack is class-theoretical in its methodology. While it is to be freely admitted that McDougall has described certain behavior forms with keen psychological insight, his psychology remains solely descriptive.

We do not deny that individuals are curious, pugnacious, self-assertive, gregarious, and the like. The question which class-theoretical approaches fail to raise is the central one for a field theory, namely, "What are the conditions in the psychological field under which specific behavior forms arise?" In Chap. XIV we shall see that there are no reaction forms independent of these field conditions, namely, that there is no such thing as innate instincts or class-determined "human nature."

The discussion of McDougall should suffice for the criticism of the whole school of instinct theorists. Different observers have posited different lists. Certain instincts are included in nearly all of these lists, others in very few. Following McDougall the Englishmen Trotter(335), Wallas(340), and Hobhouse(149) carried McDougall's attack further. The Americans Warren(342) and Thorndike(330) have presented lists of innate reaction tendencies of an instinctual sort. Underlying all these attacks is a common methodological weakness, namely, the desire to find certain human reaction tendencies which remain constant, independent of changes in field structure. This weakness will be apparent in the discussions of sympathy, suggestion, imitation, and social habit which follow.

3. Imitation, Suggestion, Sympathy, and Social Habit

Each of these mechanisms, with which we are familiar in everyday life, has been posited by various social psychologists as being the key mechanism on which a social psychology could be built. That each of them plays a role in our social relations with our fellow men is quite obvious. As phenotypical descriptive concepts each makes a good starting point for our statements about certain social-psychological problems. But all of them remain purely descriptive concepts and to attribute to them explanatory significance makes them play the same role as instinct and intelligence in the older theories. In many writings the usage of them as instincts renders further criticism unnecessary. They have, however, been used, particularly by certain older writers, in a more inclusive sense, and their widespread usage in the literature of social psychology necessitates somewhat more detailed criticism.

Imitation.—G. Tarde(327) in *The Laws of Imitation* attempted the first systematic presentation of social psychology on the basis of imitation. To Tarde, imitation was a general tendency of humans to behave in the manner in which other humans are behaving.

Consequently, socially and psychologically it is the tendency to abide by the existing order of things and to do as one's fellow men do, as opposed to the tendency toward invention, which in itself however is part of the general tendency to imitate. Between these two tendencies Tarde attempted to account for all social change and social history. The laws of imitation were to be the equivalent for sociology of "the laws of heredity for biology" and the "laws of vibration for physics," and Tarde proceeded to outline methods for investigating these laws and ascertaining how they function in society. His influence has been considerable among the more literary and theoretically minded social psychologists. Since his time much has been written about social imitation.

Neither Tarde nor his immediate successors went far in explaining the important problem of exactly "Who imitates whom?" and the equally important one of "Under what conditions does imitation appear?" It is quite characteristic of John, aged ten, to imitate the athletic prowess of his older brother William, aged sixteen, but uncharacteristic of him to imitate the sniffling of his younger brother, Peter, aged four. The sartorial elegance of Clark Gable or Marlene Dietrich is imitated where the clothing of Zasu Pitts or Buster Keaton is not.

Imitation then is descriptive of a type of behavior which occurs under certain definite precise conditions and fails completely to appear under other conditions. We are by no means justified in calling it a universal tendency in human behavior. Humans imitate when this type of behavior enables them to arrive at certain goals in the psychological field. The underlying dynamic situation creates the imitation, rather than a force called imitation creating these goals. Whenever a shopgirl cuts her hair in a Garbo bob, she does this, not because imitation as a force causes her to do it, but rather because she perceives it as means towards arriving at the type of life that either Garbo or one of the heroines she portrays lives. This goal, however, is determined by the total structure of the social field through the structure of the regions in which she has membership-character. Under a different economic system, the goals may be quite different. For instance in the earlier days of socialism in Russia the style of clothing imitated was very much simpler than it is now. Imitation hangs together with the problem of the prestige of leadership, and we shall say more concerning the field conditions which determined it in the chapter on leadership.

Suggestion.—The use of suggestion as a general mechanism to explain social behavior was most furthered by the French social psychologist G. LeBon. With LeBon suggestion became the chief mechanism by which the behavior of crowds was to be explained. We have already dealt in the last chapter with the problem of crowd behavior and LeBon's attempt to solve it. From this standpoint LeBon attempted to account for social change (through crowd behavior) and social stability (through the ability of certain individuals to act as individual minds).

Suggestion represents the inverse type of mechanism to imitation. Imitation may be looked on as a passivity to suggestion, and suggestion as the activation of imitation. Suggestibility and the tendency to imitate are almost synonymous. Consequently our criticism of suggestion must be very similar to our criticism of imitation. The underlying field structure must be characterized in order to understand the conditions for effective suggestion. Suggestion is no force of universal or standard effectiveness. The suggestions of Hitler and Roosevelt are carried out at the present day respectively in Germany and America. The suggestions of the Communist Party in both places go unheeded. In Russia on the other hand the situation is to all intents and purposes reversed. In times of war the suggestions of the military are very effective, but only under very special circumstances do the suggestions of the pacifists receive as much as a hearing. As we shall see in the chapter on leadership, the efficacy of suggestion depends on leadership and becomes a function of the field.

Sympathy.—The emotion of sympathy was used by various writers as the cornerstone mechanism of social relationships. Hume(158) and Adam Smith(305) made the first attempts at a social psychology in eighteenth-century England on this basis. But whether or not sympathy towards a certain individual or group of individuals is shown depends most decidedly on field structure. The utmost sympathy is felt for individuals having the same immediate membership-characters. The potency of the membership-character is likewise of the utmost importance in determining the amount of sympathy. Great sympathy will be felt for the countrymen in times of war, for the class brother in times of industrial strife. The conditions for the occurrence of sympathy will in general be given in the chapters on the nation, church, class, and family.

Social Habit.—Habit as generally understood by psychologists refers to activities which are acquired in the life-time of the individual as opposed to instincts, but which function rather automatically and without deliberation as opposed to intelligent acts. Habits were undoubtedly at one time in the individual, intelligent adaptations, which now are automatized through the learning process. The importance of social habits such as customs, folkways, mores for social psychology is unquestionable. Habit inclines to create cultural lag and in this way may be looked on as a basic determinant of social behavior. But here again the concept is a descriptive one. What we should know is the dynamic conditions under which habituation is built up and under which it is broken down. Let it suffice here to say that rehabituation in either the individual or the group occurs most readily when the whole social-psychological field undergoes rapid restructurization. Sympathy, habit, suggestion, and imitation are all social-psychological phenomena. The methodological weakness of their use as explanatory mechanisms should be apparent. One of the keenest methodological criticisms has been given by Wheeler(351). We can do no better than quote his criticism of habit as an explanatory principle.

But we find in habit, as in suggestion, imitation and sympathy, a concept which does not explain social behavior. Acts are not executed because of habit; *habits are these acts themselves.* Accordingly, for an explanation we must look again into the conditions under which the performance in question takes place. Why are habits acquired? We are as yet ready to consider only a general explanation in terms of two sets of conditions, one to be found in the individual himself, the other in his social environment. *Fundamental to habit formation are processes of growth and maturation of the neuromuscular system. These processes play an important part in the development of desires and insight.* With this equipment the individual proceeds in a social environment to acquire his habits. It is a continuous learning process conditioned in part by the modes of behavior which the individual finds around him. He learns in proportion to his desires and insight; if he is devoid of wishes he forms no habits. In order to form habits he must be under tension. [From R. H. Wheeler, *The Science of Psychology*, Thomas Y. Crowell Company, New York, 1929, p. 75.]

4. Social Attitudes and Their Measurement

The type of social-psychological theorizing illustrated in the last two sections has been subjected to much severe methodological

criticism. This criticism, however, in seeing that the theoretical constructs of the nineteenth century were inadequate offered nothing to replace them. For this reason we believe our own criticism to be more stringent. When it became obvious that scarcely two observers could agree as to what the human instincts were, the natural reaction of science was to attack the whole instinct hypothesis. This attack was led by the psychologist Knight Dunlap(86) around the beginnings of the twenties of this century. A whole host of other critics followed.[1] The conclusions from this criticism, although much of it was based on similar grounds, were immediately quite different from ours. We have concluded that instinct theory was class theory, poor theory. We have suggested that it should be replaced by good theory, field theory. The earlier criticism following Dunlap insisted that theory had no place in the sciences. This sociological behaviorism followed the atomistic-mechanistic philosophy of biology and the inductive method. The general trend of this criticism may be seen from the very witty account of Faris(102).

It is clear, then, that the definition of the term (instinct) is in doubt. It will be even easier to show that the number and classification of the instincts is in a state of direst confusion. James leads off with some thirty-two (including the instinct of licking sugar!), but Angell is content with half that number, rejecting the alleged instinct of cleanliness (perhaps he had a small boy of his own) and refusing to include hunting and modesty. He did, however, make certain additions not on James's list. Warren has twenty-six, including "clothing," "resenting," and "domineering," while Thorndike in his *Original Nature* enumerates some forty or more besides certain "multiple tendencies" both of thought and action. Nor is this all. Pillsbury, Watson, Hunter, and the rest, among the psychologists, as well as Graham Wallas, Carleton Parker, Ellwood and Hayes, and many others, all follow with their own lists, no two quite agreeing and each with his own opinion as to what should be included and what rejected. McDougall, in his *Social Psychology*, has proposed a criterion which requires the instinct to be found among the animals, not in all the animals but in some of them, and also to be found in an exaggerated form among abnormal people. This leads him to posit some fifteen or more, the number varying in different editions of his work. The zoological garden on the one side and the insane asylum on the other would thus have a veto on the candidates for the list, but the criteria have found favor with but few.

[1] *Cf.* the bibliography given by Karpf(166).

Trotter in a war-time book insists on four instincts and no more; Ames in his *Psychology of Religion* reduces them to two instincts which he finds quite sufficient to explain the complexities of human life; while Freud, Jung, LeBon and Kropotkin each reduces human nature to one single instinctive principle, though they do not agree on what it is.

How does it happen that gifted men are so unable to agree on what they consider the basic facts of human nature? Some slight differences might be understood, but surely the range is distressingly wide. One, or two, or four, or eleven, or sixteen, or thirty, or forty—this looks suspicious. Facts are the given, accepted, apparent data of a problem. Perhaps instincts are the hypotheses [pages 187–188].

This much at least is plain: An instinct in developed human beings can never be the result of direct observation. At best, it can be a hypothetical inference, an assumed elementary component, in a complex human situation. It was formerly assumed that human mothers were in possession of a maternal instinct which enabled them to perform their duties adequately. But if untaught human mothers be carefully observed, very little evidence appears in support of this notion. One of the most awkward sights to be seen, says Watson, is an uninstructed young mother trying to bathe her baby. It is safe to say that the doctrine of a maternal instinct so eloquently preached by psychologists is not only untrue, but has been the occasion of much suffering and even of the death of many children. A mother robin knows without teaching how to prepare a place for her young, what sort of food they need, and where to find it. There is much evidence that human mothers are far less competent in this respect.

What I am insisting on is that the human instincts, except in the case of very young children performing various simple acts, are never the result of direct observations. These infantile acts are moreover of the reflex type. If human instincts were assumed as hypothetical concepts to be arrived at at the end of the discussion, the psychologist would not commit the sin against the Holy Ghost. What this type of "genetic" psychologist does is to make his hypotheses into a fact and put it at the first of his discussion; but to make into fact that which is not fact is to deserve censure. If we are ever to get ahead, we must know a fact when we see it.

The social psychologist should fasten his attention on the facts of human nature which lie all around us in the form of attitudes, desires, and wishes, which can be recorded, studied, collected, classified, and explained, and which are open to no such objection as the instincts, which in the nature of the case are always hypothetical components of a complex form of behavior. [From E. Faris, "Are Instincts Data or Hypotheses?" *Amer. J. Soc.*, 1921, 27, 193–194.]

Contemporary View of Attitude.—The last paragraph of Faris' account is particularly important, for it introduces the term attitude which has become the central concept of social-psychological writing during the last fifteen years. Gordon Allport(9), one of the American psychologists who has done most to popularize the term, gives the following reasons for its importance.

The concept of attitude is probably the most distinctive and indispensable concept in contemporary American social psychology. No other term appears more frequently in experimental and theoretical literature. Its popularity is not difficult to explain. It has come into favor, first of all, because it is not the property of any one psychological school of thought, and therefore serves admirably the purposes of eclectic writers. Furthermore, it is a concept which escapes the ancient controversy concerning the relative influence of heredity and environment. Since an attitude may combine both instinct and habit in any proportion, it avoids the extreme commitments of both the instinct-theory and environmentalism. The term likewise is elastic enough to apply either to the dispositions of single, isolated individuals or to broad patterns of culture. Psychologists and sociologists therefore find in it a meeting point for discussion and research. This useful, one might almost say peaceful, concept has been so widely adopted that it has virtually established itself as the keystone in the edifice of American social psychology. In fact several writers *define* social psychology as the scientific study of attitudes [page 798].

Thus social psychologists, somewhat weary of theoretical debate, have spent a great deal of effort in classifying and "measuring" attitudes which are defined by Allport as follows:

An attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related [page 810].

Certainly the states of readiness which lead individuals to react socially are an important part of the study of social psychology. To be able to measure them would also be of great importance. We shall be much concerned with the effect of field structure on the individuals' attitudes toward the groups in which they have membership-character and toward other groups throughout this book But a careful reading of Allport's recent account of social attitudes and their measurement convinces one that actually little besides the clarification of a methodological issue has been accomplished in the last fifteen years. Thus there is no real agreement as to whether

attitudes are built up through the integration of numerous specific responses of a similar type or through the differentiation of the finer attitudes out of coarse, diffuse, non-specific attitudes. The discerning reader will recognize here immediately the conflict between the atomistic-mechanistic and the organismic philosophies of biology. There is furthermore no sure agreement as to which attitudes are fixed and which variable, which specific, *i.e.*, momentary integrations or motor sets, and which general, *i.e.*, lasting integrations with regard to certain forms of stimuli. In addition the attempted measurements of attitudes are by no means generally looked on as valid.[1] Allport's own conclusions indicated this state of affairs quite clearly.

Within the past fifteen years the doctrine of attitudes has almost completely captured and re-fashioned the science of social psychology. The nature of attitudes, however, is still in dispute, and it may correctly be questioned whether a science reared upon so amorphous a foundation can be strong. What is most urgently needed is a clarification of the doctrine of attitudes, and to this task the present chapter has been addressed.

Because of historical considerations it is necessary to include a wide range of subjective determining tendencies under the general rubric of Attitude. Yet it is both possible and desirable to distinguish between attitudes and many correlative forms of readiness-for-response. Attitudes proper may be *driving* or *directive*, *specific* or *general*, *common* or *individual*. They characteristically have a material or conceptual object of reference, and are "pointed" in some direction with respect to this object. If they are so generalized that the object and the direction are not identifiable, they then merge into what may be called the "traits" of personality. Common attitudes can be roughly classified and measured, and when abstracted from the personalities which contain them they constitute the "socius" which is that portion of the unique personality of special interest to social science. [Page 839; this and the above passages from G. W. Allport, "Attitudes," in *Handbook of Social Psychology*, Clark University Press, Worcester, Mass., 1935.]

The reasons for this only partially pleasing state of affairs is that the social psychologists have again investigated their problems with a methodology which is implicitly class-theoretical. Instead of asking what field conditions produce what attitudes they have been concerned with attempted generalities. "What are the general,

[1] We shall use certain of these measurements in the following chapters. They are of the general type of the so-called measurements of intelligence. *Cf.* Allport(9).

what are the specific attitudes?" Consequently, despite the methodological clarification accomplished by the work on attitudes, the scientific value of much of this work is not great. Still the transition which has been accomplished from instinct psychology is important. The instinct psychology gave us no insight except where the structure of the field remained constant. The attitude psychology at least raises the problem of the effect of field structure on the attitude.

Two basic problems which have persisted in social-psychological writing remain to be handled. Here again we shall see the prevalence of the class-theoretical mode of attack in the older attempted solutions and the presence of much confusion regarding methodology today.

5. The Effect of the Group on the Behavior of the Individual

The general trend of social-psychological writing on the effect of group participation on the psychology of the individual has also been from the broadest class-theoretical generalities to a methodologically more refined but still a class-theoretical approach.

Of the earlier writers who dealt with the problem, we have already concerned ourselves with LeBon. The question LeBon posed was "Does the group degrade the individual or does it improve him psychologically?" LeBon's answer, since he based his generalizations on only one type of field structure, was that it degraded the individual. Thus McDougall and Freud, in considering organized groups, decided that under certain conditions it improved the individual. From this time various researches and theoretical writings have dealt with various aspects of the effect of group participation.

These researches have recently been admirably summarized by Dashiell(75). In a tabular form he gives the findings of investigations by various workers on the effect on output and efficiency of the individual: (1) When the other individuals are merely spectators, (2) when they are coworkers, (3) when they are competitors. Furthermore he reports (4) the effect of praise and censure on the individual, (5) the effect of interchange of ideas on the individual, and (6) the effect of personal prestige or mere mass numbers on these various conditions. The most striking thing about all these researches is the lack of agreement between the individual investiga-

tors. Space does not permit us to give individual examples but for every one of these problems opposed experimental results are to be found. Thus the application of experiments without adequate theory ends simply in a maze of contradictions. The questions again are placed as generalities: "Does an audience affect favorably or unfavorably the work of an individual?" From the standpoint of field theory the precise momentary situation must be characterized.

6. The Effect of the Individual on the Behavior of the Group (Leadership)

Here again the problem originally is stated in the terms of the broadest generality; "Does history make the leader or does the leader make history?" was a question seriously debated through the nineteenth century. Is the source of group activity to be found in the leader or in the group? The earlier writers placed it almost solely in the leader; later the tendency was to see the chief forces those of history.

Social psychologists have recently made their questions more specific. "What are the characteristics of the leader?" "Which of these is necessary for various types of leadership?" "How far may the leader influence his following?" But here again the lack of adequate theoretical constructs has led to a contradictory mass of material. Investigation for instance on the height of leaders, where the individuals chosen as leaders are floorwalkers, leads an investigator to decide height is an important characteristic of leadership. The inanity of this type of class-theoretical analysis is revealed when one remembers the heights of Signor Mussolini and Herr Hitler. The effect of the individual on the group may be handled adequately only when we have adequate theoretical constructs in which to phrase our problem.

7. The Chief Characteristics of Contemporary Social Psychology

In all of the above problems we have seen the gradual development from an attempt at analysis which is solely class-theoretical to one which still retains many of the aspects of such a method. In this book we shall attempt a first approach to a field-theoretical social psychology. A few more general remarks about existing approaches however, are necessary.

Descriptive Social Psychology.—There exists a large literature of pure descriptive and classificatory social psychology. This is necessary before a field-theoretical approach may be started. In so far as this literature has been assembled by social psychologists, they have performed a useful function. In addition to the works of the psychologists, the sociologists and social anthropologists have assembled much which is also useful. Much of this work, particularly that of the older writers, is so highly evaluative as to be almost useless In addition to the scientists, much from the field of *belles lettres* is useful in the descriptive classificatory sense.

Besides mere verbal description of a qualitative sort we are lucky to have available a great deal of sociological and economic statistics. These statistics, interpreted in the constructs of a field-theoretical methodology, will be of the greatest use for future research.

Experimental Social Psychology.—The beginnings of an experimental social psychology are at hand. Instead of the broad theoretical generalities of the nineteenth century, the twentieth century has attacked specific problems. This experimental material however is almost all very unclear in its implications. If one reads Murphy and Murphy's book, *Experimental Social Psychology*(251), one readily sees that clarification of these experimental data is necessary. On the whole, social psychology has gone from the broad but important generalities of the nineteenth century to the specific but sometimes meaningless experimental researches of the twentieth. Bertrand Russell says, "The modern mathematicians know more and more about less and less." This I believe would be even more applicable to the social psychologist. In his foreword to the *Handbook of Social Psychology*, Carl Murchison(249) sounds the following pessimistic note:

> The social sciences at the present moment stand naked and feeble in the midst of the political uncertainty of the world. The physical sciences seem so brilliant, so clothed with power by contrast. Either something has gone all wrong in the evolution of the social sciences, or their great day in court has not yet arrived. It is with something akin to despair that one contemplates the piffling, trivial, superficial, damnably unimportant topics that some social scientists investigate with agony and sweat. And at the end of all these centuries, no one knows what is wrong with the world or what is likely to happen to the world. [Page ix; from C. Murchison [ed.], *A Handbook of Social Psychology*, Clark University Press, Worcester, Mass., 1935.]

We cannot agree completely with Dr. Murchison. The field-theoretical approach, we believe, has much to say about these problems. The greater disorder in modern social science dates from the partially sound argument of the atomistic-mechanists against the broad, inclusive, but faulty theoretical constructs of the nineteenth-century social scientists. That their arguments were only partially sound should be obvious to the reader as we approach the end of our section devoted to methodology. *That nineteenth-century class-theoretical attacks were inadequate should be clear now. But to attempt to get on without any theory is impossible. The transition has been from a false theory to no theory.* The rest of this book will be devoted to the attempt to build an adequate theory of social behavior.

8. Summary

1. In this chapter we have contrasted the scope of this book with other treatises on social psychology. We shall omit specific treatment of some problems whose solutions cannot be offered at this time in order to save space for important problems from the fields of social anthropology, economics, and political science.

2. The first systematic treatments of social psychology were on the basis of the pseudo-explanatory concepts of instinct and intelligence. A discussion of the development of the instinct social psychology from Descartes to McDougall showed us that such an approach was primarily class-theoretical. A field-theoretical approach admits only descriptive importance to the concepts of intelligence and instinct.

3. Sympathy, imitation, suggestion, and habit, which have been used as basic mechanisms on which to build social psychology, are subject to the same criticism as instinct.

4. The realization around 1920 that the older theories of social psychology were inadequate led to the abolition of theory in social psychology. The interest turned to the investigation of social attitude. A survey of the work on social attitudes showed us that the attack had not been very fruitful because recently, instead of with a faulty theory, social psychologists have attempted to proceed without a theory.

5, 6. The most persistent problems of social psychology have been those of the effect of the individual on the group and of the group on the individual. Here again the transition has been from broad

theoretical generalizations on a faulty methodological basis to specific investigations without any coordinating theory.

7. The existing status of the science of social psychology was characterized. The stage seems to be set for an advance to an adequate coordinating theory.

Bibliographical Note

Karpf(166) and Sorokin(308) give much valuable material on and complete references to the older social psychologies. The criticism of Wheeler(351) on habit, imitation, suggestion, and sympathy is very keen and has influenced our own criticism. The best brief résumé of the attitude social psychology is that of G. Allport(9). Other books on the social attitudes and their measurement are those of Symonds(326), Thurstone and Chave(332), Murphy and Murphy(251). Research problems on the effect of the group on the individual and the individual on the group are summarized by Dashiell(75). All texts on social psychology naturally deal with this problem.

The following are recent standard college texts on social psychology: Folsom(107), Krueger and Reckless(176), K. Young(369, 370), F. Allport(8), Myerson(254), K. Dunlap(87). There is a *Handbook of Social Psychology*, edited by Murchison(249). An account of the "experimental" attacks has been published by Murphy and Murphy(251).

PART II
SOCIOLOGICAL SECTION

CHAPTER VI

CONCERNING CLASSIFICATION

1. Plan of the Sociological Section

In this section we shall try to arrive at certain laws and generalizations concerning the social behavior of groups. This is the general subject matter of sociology and of necessity many of our data will be taken from that science. But our primary interest will be the effect of the social activity of the group on the conscious behavior of the individuals within the group. We shall be interested in such problems as these: What is the effect on the attitudes of a citizen of a country when the country goes to war? How do changes in the organization of religious bodies affect the attitudes of individuals towards religion, within this nation? What differences of a psychological sort result when an individual changes from one church to another, or from a rural family life to an urban one? In the succeeding chapters, the nation, the church, the social and economic classes, various subordinate groups within these large groupings, and finally the family will be discussed. Before all this, however, we must decide on what basis we shall define our groups, and further must say something concerning the relationships of other types of classification to our own. As indicated in the last chapters, the most scientific way of proceeding is to order the descriptions of group activity given us in the language of data (phenotypical descriptions) to the constructs of the language of dynamics (genotypical descriptions). This procedure will enable us more clearly to formulate the necessary relationships between the various social phenomena and to gain a clearer insight into the social structure of today and how it is changing.

In showing the relationship between genotypes and phenotypes or between the language of constructs and the language of data, we can proceed in one of two ways. We might begin by describing certain types of field structure and by discussing possible variations in this field structure. After describing these possible variations, we could then order the genotypical description to the appropriate

phenotypical data. Let us illustrate this procedure by giving a few cases that will be roughly indicative of what this method implies. For instance, the statement: "There is a fall in the degree of freedom of social locomotion of the social field, with a lessening in the variability in membership-character, and a decrease in the permeability of the outer barriers" may be ordered to the statement: "As a nation goes to war, individual freedom is diminished, liberal and alien groups may no longer function, and immigration is cut down," or to the statement: "In times of serious labor difficulties, labor organizes more highly, the sympathies previously existent between the workers and the employers diminish, and the chances are slim that one of the workers will marry the boss's daughter." Many other phenotypically different situations, such as religious conflicts, interfamilial feuds, or the change from mild to cutthroat competition between two firms, are also to be so characterized in a first approximation. The fact that a great number of phenotypes may be adequately reduced to a single genotypical description is perhaps the outstanding merit of the field-theoretical approach in any science. By adequate description or characterization is meant that through the genotype one can deduce the phenotypical consequences of existing field structures. Naturally, as should be clear from the last chapters, a certain amount of abstraction is necessary and answers to every possible question concerning the outcome of a certain field structure may not be given by any one characterization. Naturally, also, the precision of the answer will depend on the adequacy of the phenotypical data. Furthermore the limitations on precision discussed in the earlier chapters must be kept in mind.

The other procedure would be to reverse the translation. Beginning with a description of the growth of liberal democracies in the nineteenth century, we might order this description to the genotypical one of the increasing fluidity of the total national field and the subfields. The growth of individualism would be ordered to the greater variation in membership-character, and the increasing laxity in morals would be ordered to an increasing permeability of the barriers within the field. In the chapters to follow, we shall choose this second alternative. We do this for two reasons. In the first place, existing sociology is practically all written in the language of data and students are more familiar with its grammar and syntax. Secondly, in any science the immediately given is the data, and the history of science shows us that a systematized theory can be

developed only after the behavioral phenomena are fairly well known. Hence in the next chapters we shall start with what the sociologist (and almost everybody else for that matter) knows concerning the behavior of nations, religious bodies, classes, and the like. We shall then, so far as it is possible, order these data to the constructs which we introduced in the chapters on method. Two results of the greatest importance should come out of this procedure. In the first place, we should gain an insight into the dynamically and logically necessary relationships between the variables in group behavior. Secondly, we should be able to predict certain laws about group behavior. By prediction we mean, of course, prediction in the topological, non-metricized sense defined above.

2. Various Forms of Group Classification

Despite the fact that we have attacked the explanatory value of classification, descriptive classificatory data remain the starting point of science. Definition itself presupposes classification and, as we pointed out, the first step in the development of science is the precise (wherever possible, mathematical) definition of concepts. The problem of classification is basic in science. We have supposed the real existence of social groups and the question immediately arises as to the criteria for membership within a group and differentiae between groups. Logically, classifications are sound if the divisions are made so that the classes are mutually exclusive and divided on the basis of a fundamental characteristic, the so-called *fundamentum divisionis*.[1] But, as we shall see, logical adequacy in classification by no means assures psychological or sociological usefulness. Consequently the form of classification adopted for groups is not a matter of indifference but one of very great importance. There are almost as many different types of classification of social groups as there are systems of sociology and social psychology. Most of these are logically adequate but they vary decidedly in their scientific value. In this chapter we shall introduce a few of these classifications which we shall use as starting points in our attempt to develop a dynamics of the social field.

Besides logical adequacy the logician is interested in the naturalness or artificiality of classifications. Artificial classification of a library would be on the basis of the size of the books and the color of their bindings. A natural arrangement or classification would

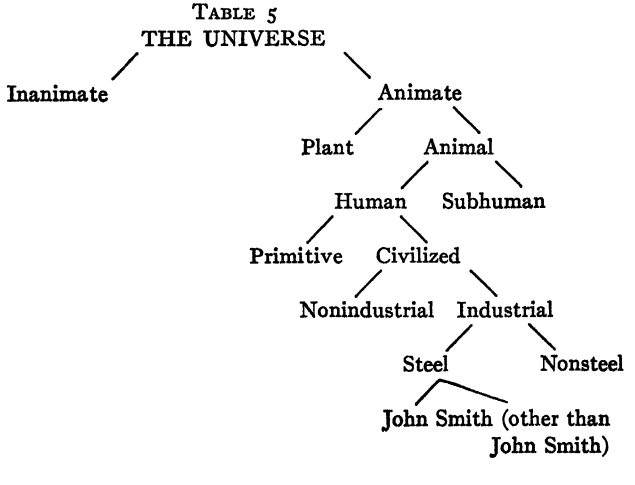
[1] *Cf.* the discussion of classification in Stebbing(316).

be by subject matter. Similarly the old zoological classifications of animals in terms of their environments or habits are artificial compared with the newer ones in terms of blood relationship. Mammals that are phenotypically quite different are genotypically similar, and vice versa. From the standpoint of modern zoology the whale is more closely related to (*i.e.*, to be classified with) the bat than to the shark. And the bat in his turn is classified with the whale rather than with the birds. The difference between artificial and natural classes of the logician is similar to the difference in phenotypical and genotypical classifications of the methodologist. However it should not be supposed that natural or genotypical classification in one science or for one purpose is the only adequate one for all purposes. While the bat is to be classified with the whale for problems of genetics and evolutionary theory, he may best be classified with the bird for certain problems of ecology. And in social psychology the *biological* natural classification has little usefulness, as the following section will indicate. Classification then must be logically adequate and should tend toward natural classification, *i.e.*, toward genotypical classification.

3. Biological Classification with Sociological Subdivisions

Under this plan of classification the taxonomic classification of man is carried beyond *Homo sapiens* to include the type of civilization to which the individual belongs and the groups in which he has

Table 5



membership-character. The universe is divided into animate and inanimate; the animate into plant and animal, the animal into human and subhuman, the human into primitive and civilized, the civilized into industrial and nonindustrial, the industrial into metal workers and nonmetal workers, etc. Let us take John Smith, a steel worker of Pennsylvania. Smith would be placed thus in Table 5.

This classification is biologically useful and logically adequate. Sociologically such classification is based solely on class-theoretical concepts. In the case of John Smith, his behavior is generalized on the basis of the position he has on the chart, *i.e.*, the classes to which he belongs. For instance, for sustenance John eats food, instead of drawing nourishment from the soil, because he is animal rather than plant, he uses tools because he is human rather than subhuman, he wears clothes because he is civilized, belongs to a union rather than a clan because his civilization is industrial. Such classifications are of no use for prediction and control of human behavior. John may become a vegetarian, a nudist, throw away his tools, or even become a "scab," and the only answer which can be given is that his behavior has become "abnormal." For the purposes of social psychology consequently the classification is of little value. We introduce it because it must be the starting point for certain problems of racial and class sociology.

4. Functional-sociological Classification

Of more interest to us is the functional-sociological division of society into groups based chiefly on the goals of individuals in the groups. This type of classification is closely related to the economic functional, of which we shall speak in the next section. The groups are delimited by their aims and the role which group activity plays in arriving at these aims. Such are the classifications into nations, religious bodies, families, friendships, congeniality groups, and the like. The starting point for most of our descriptions of social behavior will be from this type of classification, the most usually used by sociologists. The sociologists and economists have gathered a great deal of statistical data on such groups which may later prove to be of the utmost importance in assigning values to constructs of the social field. We know the average and distribution of intelligence, income, vocabulary and the like, for various national groups, church groups, class groups, etc. We know the incidence

of labor disputes and the correlation of these with certain indices of national production. In itself, however, such material is of very questionable value. Statistical means and distributions can mean but little unless there is some theoretical background on which to interpret them. Even the conventional sociologists are beginning to realize the inadequacy of the statistical approach alone. In the book *Recent Social Trends* (278), President Hoover's Committee reports:

> We may reasonably anticipate a considerable body of constructive social thinking in the near future developing in the minds of individual students of social problems, pioneers in social discovery or statesmen in social science. More widely in the future than in the immediate past we may expect the growth of thinking about the meaning of the great masses of social data which we have become so expert and generous in assembling. Is it possible that there is radical inconsistency between the industrious and precise collection of material and the effort to interpret and utilize what has been found out? Or the contrary, is there a compelling urgency that they be brought together both for the sake of science and of society? We may look for important contributions from individual thinkers with a point of view from which the focusing of social problems and their constructive integration is not excluded, but emphasized. . . . It might be said, indeed, that while the most recent phase of American development in the social field has been the recognition of the necessity of fact finding agencies and equipment, and their actual establishment, the next phase of advance may find more emphasis upon interpretation and synthesis than the last. [Page lxxii; from *Recent Social Trends*, McGraw-Hill Book Company, Inc., New York, 1933.]

The field theorist, in attempting to make a precise dynamic analysis of social behavior, may use these social facts and figures as the indices of the strength and direction of forces in the social field. We believe however that only through a theoretical approach will such statistical data become meaningful and have any real predictive value.

5. Economic-functional Classification

Recent events in world affairs have shown the importance of membership in the social class for the individuals' social psychology. In Chap. IX we shall discuss the effect of social class on the social psychology of the individual. Social classes according to Bukharin are defined as follows (47):

A social class—we have seen—is the aggregate of persons *playing the same part in production, standing in the same relation toward other persons in the production process, these relations being also expressed in things* (instruments of labor). It follows that in the process of distribution the common element of each class is its uniform source of income, for the conditions in the distribution of products are determined by the conditions in *production.* Textile workers and metal workers are not two separate classes, but a single class, since they bear the *same relation* to certain other *persons* (engineers, capitalists). Similarly, the proprietors of a mine, a brick-field, a corset-factory, are all of one class; for regardless of the physical differences between the things they manufacture, they occupy a common ("commanding") position with regard to the *persons* engaged in the process of production, which position is also expressed in things ("capital").

The production relations are therefore at the basis of the class alignment in society. Other divisions have been made, which must now be disposed of. A frequent conception is the division into the classes of "poor" and "rich." A man having twice as much money in his pocket as another is considered as belonging to a different class, the basis of the division being in this case the amount possessed or the standard of living. An English sociologist (D'Ett) has gone so far as to draw a table of classes: the first and lowest class (paupers) have a budget of eighteen shillings per week; the second class, twenty-five shillings; the third, forty-five shillings, etc. This conception is not only very simple, but also naïve and erroneous. From this point of view, a well paid metal worker in capitalist society would not be counted with the proletariat, while a poor person or artisan would fall into the working class. The lumpenproletariat would have to be considered as the most revolutionary class, as the power capable of realizing the transition to a higher form of society. On the other hand, two bankers, one of whom has twice as much money as the other, would have to be assigned to two separate classes. Yet, every-day experience shows us that the various classes of workers are far more likely to fight side by side than are the workers and artisans, or workers and peasants, etc. The peasant is not much inclined to feel any solidarity with the worker. At the other end of the scale, two bankers feel themselves to be members of the same family, though one be ten times as rich as the other. Marx already pointed out that the size of one's purse constitutes a merely quantitative difference, which may, to be sure, throw two individuals of the same class into violent opposition to each other. In other words, the difference in "wealth" may not be considered as sufficient basis for the definition of a class, even though it have an influence within the frame of one class.

Another widely accepted theory is that which makes the process of distribution the basis of the class division of society, *i.e.*, the distribution of

social *income*. Thus, in capitalist society, the division of income into three principal groups, profits, ground rent, wages, gives rise to a distinction between three classes: capitalists, landlords, proletarians (wage workers). The share falling to each of these classes may only grow—for a given quantity of social income—at the cost of the share falling to another class. The members of one class are therefore united not only by common and uniform interests, but also by the opposition of their interests to those of other classes.

Unless we debase this theory to a mere consideration of who is getting more and who less, we at once encounter the following question: why are the persons who are united in a class reproduced as a class? How comes it that—let us say—in capitalist society, certain types of income exist? What is the cause for the stability of these "types of income"? The mere putting of these questions shows the true statement of affairs. This stability depends on the relation to the *means of production*, which, in turn, *express the relation between men in the process of production*. The function of men in production, and the ownership in the interests of production, *i.e.*, the "distribution of persons" and the "distribution of means of production" are fixed quantities within the limits of the existing mode of production. If we are dealing with capitalism, we have therefore a category of men who command the production process, who simultaneously control all sorts of means of production, and there is also a category of men working at the command of the former, subordinating their labor power to them, and producing commodity values. This circumstance is responsible for the fact that a certain natural law process prevails in the distribution of the products of labor (*i.e.*, in the distribution of income). We have therefore come to the point of considering the most important phases in production—the "distribution of persons" and the "distribution of things"—as the basis of class relations.

Nor could it be otherwise, as we may learn if we approach the question in the most abstract terms. Every class is obviously a certain "real aggregate," *i.e.*, it sums up all the persons related in uninterrupted mutual reactions, all the "living persons" whose roots are in production, and whose thoughts may reach into the skies. Each class is a special, definite human system within the great system known as human society. Our approach to the class must be similar, therefore, to our approach to society; in other words, the analysis of classes must begin with production. We must of course not be surprised to find classes differing from each other along various lines: in production as well as in distribution, in politics, in psychology, in ideology. For all these things are interdependent; you cannot crown a proletarian tree with bourgeois twigs; this would be worse than placing a saddle on a cow. But this connection is determined, in the last analysis, by the position of the classes in the process of production.

Therefore, we must define the classes according to a *production* criterion (pages 276–278).

Bukharin further describes the most important social classes:

1. *The basic classes of a given social form* (classes in the proper sense of the word) are two in number: on the one hand, the class which commands, monopolizing the instruments of production; on the other hand, the executing class, with no means of production, which works for the former. The specific form of this relation of economic exploitation and servitude determines the form of the given class society. For example: if the relation between the commanding and executing class is reproduced by the purchase of labor power in the market, we have capitalism. If it is reproduced by the purchase of persons, by plunder, or otherwise, but not by the purchase of labor power alone, and if the commanding class gains control of not only the labor power but also of body and soul of the exploited persons, we have a slaveholding system, etc.

The basic classes may be subdivided into their various elements. In capitalist society, the commanding bourgeoisie was partly industrial, partly commercial, partly banking, etc. The working class includes skilled and unskilled workers.

2. *Intermediate classes:* these include such social-economic groups as constitute a necessity for the society in which they live, *without being* a remnant of the old order. They occupy a middle position between the commanding and exploiting classes. Such are, for instance, the technical mental workers in capitalist society.

3. *Transition classes:* these include such groups as have emerged from the preceding form of society, and as are now disintegrating in their present form, giving rise to various classes with opposite roles in production. Such are, for example, the artisans and peasants in capitalist society, who constitute a heritage from the feudal system, and from whom both the bourgeoisie and the proletariat are recruited.

Thus, the peasantry is constantly falling to pieces under capitalism; economically speaking, it is differentiated; the rich peasant grows out of the medium peasantry, becoming a trader and, one step further up, a true bourgeois. On the other hand, the proletariat is also growing out of the peasantry, by some such process as this: the peasant has no horse; he becomes a farm laborer or seasonal worker; he becomes a true proletarian.

4. *Mixed class types:* these include such groups as belong to one class in one respect and to another class in another respect, for example, the railroad worker who runs a farm of his own, for which he hires a laborer; he is a worker from the standpoint of the railroad company, but an "employer" from the standpoint of his hired man.

5. ***Finally*** there are the so-called déclassé groups, *i.e.*, categories of persons outside the outlines of social labor: the *lumpenproletariat*, beggars, vagrants, etc. [Pages 282–284; this and the above passage are from N. Bukharin, *Historical Materialism*, International Publishers Company, Inc., New York, 1925.]

In contemporary society we shall distinguish between the *bourgeoisie*, those who own the means of production and whose living is derived from this ownership, the *petty bourgeoisie*, who usually own some property but who are chiefly dependent on salaries or fees for a living, and the *proletariat*, who usually own little or nothing and perform the actual labor of production. For many social-psychological problems this type of classification is much more important than either the biological or the sociological-functional. While it is still partially class-theoretical, it comes nearer to sociological adequacy than any we have so far dealt with. We shall next take up certain attempts of other sociologists to arrive at dynamical classifications.

6. In-group versus Out-group

There are certain attempts at sociological classification which approach the field-theoretical. One of the best known of these is the division of social groups into in-group (we-group) and out-group (they-group). This distinction was popularized by W. G. Sumner(324). We shall quote a famous passage in which Sumner describes the differences in such groups and derives certain psychological characteristics of each.

The conception of "primitive society" which we ought to form is that of small groups scattered over a territory. The size of the groups is determined by the conditions of the struggle for existence. The internal organization of each group corresponds to its size. A group of groups may have some relation to each other (kin, neighborhood, alliance, connubium and commercium) which draws them together and differentiates them from others. A differentiation arises between ourselves, the we-group, or in-group, and everybody else, or the others-groups, out-groups. The insiders in a we-group are in a relation of peace, order, law, government, and industry, to each other. Their relation to all outsiders, or others-group, is one of war and plunder, except so far as agreements have modified it. If a group is exogamic, the women in it were born abroad somewhere. Other foreigners who might be found in it are adopted persons, guest friends, and slaves.

Sentiments in the in-group and towards the out-group. The relation of comradeship and peace in the we-group and that of hostility and war towards others-groups are correlative to each other. The exigencies of war with outsiders are what make peace inside, lest internal discord should weaken the we-group for war. These exigencies also make government and law in the in-group, in order to prevent quarrels and enforce discipline. Thus war and peace have reacted on each other and developed each other, one within the group, the other in the intergroup relation. The closer the neighbors, and the stronger they are, the intenser is the warfare, and then the intenser is the internal organization and discipline of each. Sentiments are produced to correspond. Loyalty to the group, sacrifice for it, hatred and contempt for outsiders, brotherhood within, warlikeness without—all grow together, common products of the same situation. These relations and sentiments constitute a social philosophy. It is sanctified by connection with religion. Men of an others-group are outsiders with whose ancestors the ancestors of the we-group waged war. Virtue consists in killing, plundering, and enslaving outsiders.

Ethnocentrism is the technical name for this view of things in which one's own group is the center of everything, and all others are scaled and rated with reference to it. Folkways correspond to it to cover both the inner and the outer relation. Each group nourishes its own pride and vanity, boasts itself superior, exalts its own divinities, and looks with contempt on outsiders. Each group thinks its own folkways the only right ones, and if it observes that other groups have other folkways, these excite its scorn. Opprobrious epithets are derived from these differences. "Pig-eater," "cow-eater," "uncircumcised," "jabberers," are epithets of contempt and abomination. The Tupis called the Portuguese by a derisive epithet descriptive of birds which have feathers around their feet, on account of trousers. For our present purpose the most important fact is that ethnocentrism leads a people to exaggerate and intensify everything in their own folkways which is peculiar and which differentiates them from others. It therefore strengthens the folkways.

When Caribs were asked whence they came, they answered, "We alone are people." The meaning of the name Kiowa is "real or principal people." The Lapps call themselves "men," or "human beings." The Greenland Eskimo think that Europeans have been sent to Greenland to learn virtue and good manners from the Greenlanders. Their highest form of praise for a European is that he is, or soon will be, as good as a Greenlander. The Tunguses call themselves "men." As a rule it is found that nature peoples call themselves "men." Others are something else—perhaps not defined—but not real men. In myths the origin of their own tribe is that of the real human race. They do not account for the others.

The Jews divided all mankind into themselves and Gentiles. They were the "chosen people." The Greeks and Romans called all outsiders "barbarians." In Euripides' tragedy *Ighigenin in Aulis*, Iphigenia says that it is fitting that Greeks should rule over barbarians, but not contrariwise, because Greeks are free, and barbarians are slaves. The Arabs regarded themselves as the noblest nation and all others as more or less barbarous. In 1896, the Chinese minister of education edited a manual in which this statement occurs: "How grand and glorious is the Empire of China, the middle kingdom! She is the largest and richest in the world. The grandest men in the world have all come from the middle empire." In all the literature of all the states equivalent statements occur, although they are not so naïvely expressed. In Russian books and newspapers the civilizing mission of Russia is talked about, just as, in the books and journals of France, Germany, and the United States, the civilizing mission of those countries is assumed and referred to as well understood. Each state now regards itself as the leader of civilization, the best, the freest, and the wisest, and all others as inferior. Within a few years our own man-on-the-curbstone has learned to class all foreigners of the Latin peoples as "dagos," and "dago" has become an epithet of contempt. These are all cases of ethnocentrism. [Pages 12–15; from W. G. Sumner, *Folkways*, Ginn & Company, Boston, 1906.]

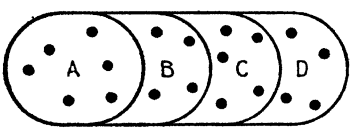


FIG. 15.—Showing the field-theoretical differentiation of the in-group and out-group. *A*, "exclusive" society region; *B*, bourgeoisie region; *C*, white proletariat region; *D*, Negro proletariat region.

The in-group is to be ordered to a social field where the membership-character is relatively homogeneous and where the individual point-regions are surrounded in the social sense by a boundary. Such a field is indicated in Fig. 15.

The social region marked *A* represents the in-group (we-group). Let us order to this region a small clique which considers itself socially elect in an American city. Under "normal" circumstances the members of region *A* attribute the characteristics that Sumner has called out-group characteristics to the members of region *B*, who are individuals of "good birth" and "upbringing," but who do not belong to the exclusive clubs, and the like. However, both *A* and *B* together form an in-group against *C*, which is the social region ordered to white proletarians. Furthermore, under circumstances the region $A + B + C$ has the in-group characteristics against *D*, which represents the social region ordered to colored proletarians. The concept of in-group versus out-group then may

adequately be translated into the concepts of field theory. The concepts of field theory are more advantageous because relative differences in the characteristics of in-group and out-group may be more adequately expressed in constructs of field theory. There is a continuous transition from the we-group to the they-group. Sumner's distinction suffers methodologically by being dichotomous.

7. Primary versus Secondary Group

The distinction between primary and secondary groups popularized chiefly by Cooley(67) may also be translated into the language of constructs. By primary groups, Cooley means "those character-

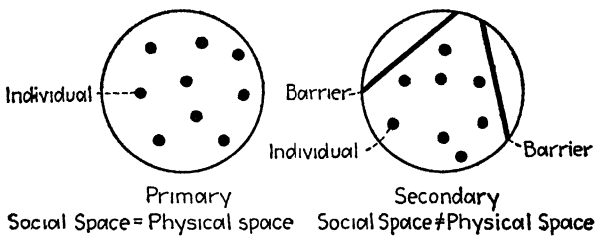


Fig. 16.—Showing the field-theoretical differentiation of primary and secondary groups.

ized by intimate face-to-face association and cooperation." Such groups are the family, boys' gangs, congeniality groups, and the like. Secondary groups are groups which do not involve the intimate face-to-face relationships of the primary groups. Such groups are the state, the nation, religious bodies. Such secondary groups are usually institutionalized, *i.e.*, they are organizations which have been sanctioned by the authority of the communities and which are governed by codified sets of regulations. In terms of field theory the primary group is one in which the social space falls roughly together with physical space, while the secondary group occupies a social space which is not concomitant with physical space. The necessity for "institutionalization" may also, as we shall see in the next chapters, be derived from this underlying dynamic situation. Topologically we have the differences between primary and secondary groups indicated in Fig. 16. The secondary group is ordered to a field in which definite barriers are indicated. These barriers are indicative of the codified regulations governing the secondary group.

8. Open versus Closed Group

Another distinction, utilized by the animal sociologist Alverdes(10), is that between open and closed groups. By open groups Alverdes means those into which a stranger may be accepted relatively easily, by closed groups he means those into which it is difficult to gain acceptance. Field-theoretically we have here simply the difference between bounded and unbounded regions. This is shown in Fig. 17.

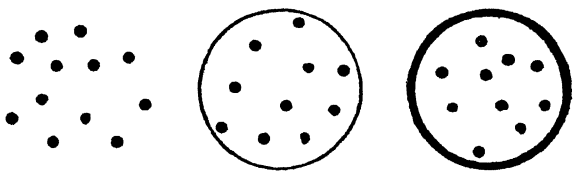


Fig. 17.—Showing the field-theoretical differentiation of open and closed groups. Bounded region I, Alverdes' open; bounded region II, Alverdes' closed.

A distinction such as open-group versus closed-group, like that of in-group versus out-group, while very useful, becomes an all-or-none proposition and does not allow differentiation into intermediary stages. No group in so far as it represents an organized whole is completely open. On the other hand there is no group which is completely closed. Alverdes' distinction can perhaps better be translated into field dynamics as open group = bounded region I, while closed group = bounded region II. (Figure 17.) The difference is hence expressed as a function of the permeability of the boundary.

The classifications of Sumner, Cooley, and Alverdes all represent attempts to express relationships between social groups in a more dynamic fashion than had been done previously. They represent however, only semisuccessful attempts, because the divisions tend to be dichotomous or all-or-none separations. "In-ness," "primary-ness," and "open-ness" may all be ordered to the topological and non-metricized dynamical properties of social fields in such a way that these dichotomies are avoided. The concepts hence become truly dynamical rather than simply "thrusts in the right direction."

9. Summary

In this chapter we have:

1. Indicated briefly the plan of this section of the work, and have seen that we shall be concerned chiefly with sociological problems.

Our mode of attack will be to take the common functional-sociological descriptions of nations, religious bodies, classes, etc., and order them to the language of constructs, in the hope of arriving at necessary sociological relationships and laws. We discussed the relationships between this our chosen procedure and other forms of classification.

2. The logical criteria for adequacy of classifications were given and also the distinction between arbitrary and natural classifications. Arbitrary classification tends to be phenotypical, but this distinction does not hold for all problems.

3. The classification of individuals by completing the taxonomic classification of man with certain sociological classes is useless for scientific prediction and control of social psychology.

4. The functional-sociological classification, which we shall use as a starting point, may, with the assistance of a field-theoretical approach, gain us insight into social-psychological problems. The sociologists and economists have gathered a great deal of statistical data which may be useful in defining the strength and direction of social field forces.

5. Related to the sociological-functional classification is the economic-functional. This classification of individuals into bourgeois, petty bourgeois, and proletarian approaches the field-theoretical more nearly than any of the preceding.

The distinction of (6) in-groups versus out-groups, of (7) primary versus secondary groups, of (8) open versus closed groups all represent attempts at dynamic classification which may readily be translated into field-theoretical concepts, with the advantage that the dichotomies disappear.

Bibliographical Note

For a discussion of the logical difficulties involved in classification, see Stebbing(316). The biological classification is given in all standard works on taxonomy and physical anthropology. The structural sociological classification is used in one form or another in practically all treatises on social psychology and sociology. The economic-functional classification is the basis of Marx's sociology. *Cf.* Bukharin's account(47). Bukharin does not present a completely accurate picture of Marx's social philosophy, however. For the distinction in-group versus out-group see Sumner(324); primary group versus secondary group see Cooley(67); open group versus closed group see Alverdes(10). There are chapters on social grouping in the *Social Psychology* and the *Source Book* of K. Young(369, 370).

CHAPTER VII

THE EFFECT OF NATIONAL MEMBERSHIP-CHARACTER

1. Race, Nation, State

Popularly, the three words, race, nation, and state are used rather indiscriminately, and even in scientific usage there is no absolutely definite agreement as to what they signify. By race, we shall mean the pattern of biologically conditioned variations in stature, color, cephalic index, and other physical characteristics of humans. This is the definition of the physical anthropologist. Originally those who belonged to the same race were descended from a common stock. But since all members of *Homo sapiens* are interfertile, and since the history of man has been a history of migration, conquest, and resultant intermarriage it is practically impossible to define racial boundaries clearly. Almost everyone however can clearly differentiate (except in few cases where the blood is very mixed) between a Negro and a white Indo-European, and even between a white European and a Jew. Similarly Orientals and American Indians can be differentiated; so Australasians and Negroes, and the other chief races. Finally, anthropologists can and do distinguish racial variations among the chief races, and speak for instance among Indo-Europeans of the Nordic, Alpine, and Mediterranean stocks with a certain amount of accuracy. Race then as used by us refers to biological differences between sorts of human beings, the supposition being that originally these races came from definite subspecies and that the heredity of these subspecies has remained sufficiently pure-strained to allow trained anthropologists to differentiate between them. It is very probable that originally the race and the nation and what there was of the state coincided. But for many thousands of years this has no longer been so. The largest grouping of humans is the race, but for sociological purposes race sociology is not so important as national sociology. Hence we will begin our discussions with the sociology

of the nation. Certain problems of racial psychology will be handled in the psychological section, and later in this chapter we shall deal with the problem of racial minorities in national groups. For the present, however, we shall have little more to say about races.

By a *nation*, we mean a group of people as an organized political body, living under control of a state. State and nation have been used interchangeably and so have nation and race. However the presence of many races (Negroes, Mongols, Semites, etc.) in the United States or in the U.S.S.R. makes it essential to distinguish between race and nation. All the various races living in the United States make up one nation, because they belong to the same body politic, *i.e.*, they are subjected by and large to the same laws, national boundaries, monetary and postal systems, and are governed by the same state.[1] For understanding the behavior of modern groups the nation is the best starting point. When wars result from economic competition, it is nations which go to war rather than races. The social psychology of the American Negro is much nearer that of the American white than that of the African Negro. Despite the protestations of the Nazis, the German Jew in his social psychology is more closely related to the Aryan German than he is to the French Jew, the American Jew, or even the Palestine Jew.

Although state and nation are widely used interchangeably, it seems desirable to have a word which will stand for the whole paraphernalia of governmental agencies through which the national *status quo* is maintained or changed. This we call the state, and it may be defined as the pattern of social institutions through which the social organization of the nation is perpetuated. The state then includes the whole structure of government (legislative, judicial, and executive branches), and the armed forces (police and army) for protecting the existing organization, in fact all the various agencies of government by both force and persuasion. In Part IV of this work we shall attempt to characterize the dynamics of the state. For the present we are simply interested in differentiating state, nation, and race. We move on, then, to a characterization of national sociology from the standpoint of field theory.

[1] That there is discriminatory legislation in most states with regard to national minorities is well known. Thus in the United States, there is the "Negro problem"; in Germany, the "Jewish problem."

2. Usual Descriptions of National Social Psychology Are Class-theoretical

The concept of the nation is a classificatory one and hence Aristotelian or class-theoretical. For social-psychological purposes it is in many ways an arbitrary classification. All the individuals living within certain geographical regions (with the exception of course of certain nationals of other states who are there for business, travel, or pleasure) are said to belong to the class German, American, Englishman, etc. The behavior of all or of a majority of these individuals at a definite time under definite conditions has certain things in common. These behavioral characteristics are abstracted and built into a pattern, and the behavior of an individual who displays any one of them is explained by saying that he is an American or a German and that Americans or Germans have this or that trait. Clearly such a procedure allows *local determination* and the behavior is determined by the class to which the individual belongs rather than by the structure of the field in which he has membership-character. Such generalizations have a fair amount of accuracy, providing that the underlying field structure remains unchanged. To try to argue present conditions by abstracting from previous and different ones leads often to absurdities. These absurdities as they become realized are gradually forcing us to adopt a field-theoretical rather than a class-theoretical attack on the problem of national psychology.

Germans are supposed to be liberty loving, thrifty, and sentimental. Englishmen are supposed to be substantial, persevering, inartistic; Americans energetic, practical, in love with the dollar. Such characterizations are not only popular with the "man in the street" but they are used in many scientific as well as pseudo-scientific sociological works. To give an extreme example let us quote from a recent work by an authority recognized in Germany:

> In non-Nordics the teeth, corresponding to the snout-like narrowness of the upper jaw, stand at a more oblique angle than in animals. . . . The grinding motion of chewing in Nordics allows that chewing to take place with the mouth closed, whereas the squeezing nature of chewing in men of other races inclines them to make the same smacking noises as animals.
>
> But the Nordic mouth has further superiorities. Just as the colour red has a stirring effect, the bright red mouth of Nordics attracts, and

provokes kisses and courtship. It looks prepossessing and, as it were, kiss-capable.

On the other hand, the non-Nordic's broad, thick-lipped mouth together with his wide-dilated nostrils display sensual eagerness, a malicious and false leer, and a sipping movement indicative of voluptuous self-indulgence.

Talking with the aid of hands and feet is characteristic of non-Nordics, while the Nordic man stands calmly, often enough with his hands in his pockets.

We find a pronounced sense of modesty only in the Nordic civilization, which actually has the one word *Scham* to mean both modesty and privy parts. But the dark-skinned man is hardly even able to blush, externally.

There is present in Nordic men an instinct for purity both without and within . . . the non-Nordic is forever living in dirt, to which his presence but adds.

The Nordic form well meets the demands (corresponds) to the "Attention!" of our drill regulations. Only in the bosom of the Nordic woman, even with the arm at her side, do we find a firm rigid semi-circular breast, the highest possible erection of a soft portion protruding in a horizontal plane.

The non-Nordic man occupies an intermediate position between the Nordics and the animals, just about next to the anthropoid ape. He is therefore not a complete man. He is really no man at all in true contradistinction to animals, but a transition, an intermediate stage. Better and more apt, however, is the designation "Subhuman" (Untermensch). [From H. Gauch, *New Bases of Racial Research*, Berlin, 1933.]

This case is chosen to show the utter absurdity of the extreme class-theoretical approach. Less extreme examples could readily be given, and the bibliographical note at the end of this chapter contains references to some of these. Such class-theoretical analyses tend always to be evaluative, whether with regard to a nation or with regard to a race.

So long as the dynamic social structure underlying the nation does not change, such characterizations (except for such absurdities as we have just quoted) do fit the behavior adequately in the statistical sense, *i.e.*, in the sense of applying to the normal. But they explain nothing. When this structure does change the characterizations appear not only inadequate but often ridiculous. In the past few years the German national field has undergone a radical restructurization. The class-theoretical national psychological characteristics attributed to Germans must be completely changed.

The Germans were characterized as thrifty and sentimental and liberty loving in the period before the World War. Owing to industrial expansion during this period the underlying dynamic situation in Germany was either stable or progressing toward greater fluidity. Correlated with this was the growth of liberal democracy. Events since 1918 have shown the characterization completely inadequate, since the field structure has changed. Many writers persist in thinking class-theoretically and their predictions become very foolish. During the inflation period (1919–1923) the intrinsic thrift of the German disappeared completely. Since the acquisition of power by the Nazi regime the romantic sentimentality of the German is far from obvious. The general opinion held by many political scientists and sociologists only five years ago was that the Germans, being "by nature" more democratic and liberty loving than the Italians, would never support a fascist regime. Today a fascist regime far more dictatorial than the Italian holds sway in Germany.

The same class-theoretical type of thinking in political science predicted failure for the Soviet government in Russia because Russians "by nature" were indolent, inefficient, mystic. But most observers are in agreement now that the Russian government is very stable and has had striking successes. These two examples ought to make it clear that the class-theoretical approach to problems of the sociology of nations is a futile one. The use of such "explanations" to make predictions is bound to lead to error *unless the underlying field structure remains constant*, which of course it seldom does. The chief error in the method lies in supposing the individual's behavior to be determined locally within the individual rather than through the whole structure of the national social field.

3. Limitations in a Field-theoretical Approach

The concepts of the nation, the national and the like, are class-theoretical concepts and hence useless for a dynamic social science. No generalizations concerning the behavior of nations as such are possible in terms of field dynamics. One *cannot* say: A certain nation as such is to be ordered to a field of so much fluidity, with this degree of permeability of boundary and such and such barriers. We can say only that *this* particular nation at this historical moment may be ordered to such and such a field. To attempt generalizations in field structure without reference to the historical moment would be a science of social statics. Characterizations in terms of social

dynamics are meaningful only for *definite, concrete, momentary* situations. From a series of these situations, however, we may make predictions of a topological non-metricized kind as to what type of structure the field is assuming. Such predictions, while lacking the metrical precision of the predictions made by the physicist, will be far more accurate than those made by the process of class-theoretical abstractions. Furthermore, we can sometimes show necessary correlations between the different variants in field structure, so that we shall be able to make such statements as that a fall in degree of freedom of social locomotion is always correlated with a lessening in variation of membership-character, or that a fall in freedom of social locomotion is brought about by a change in the number and permeability of the barriers. In the rest of this chapter, we shall attempt to deduce the chief behavioral aspects of modern industrial nations at war and in industrial depressions from the underlying field structure. We shall then discuss more briefly the role of national minorities and classes in the modern industrial nation, leaving a more detailed discussion of these topics to subsequent chapters. We choose these topics as being probably the most important illustrations today of the applicability of field dynamics to problems of national sociology.[1]

4. Nations at War

We shall begin to try to understand the behavior of nations at war by describing, in the language of data, what is generally known to occur when economic competition turns to actual conflict between modern industrial nations. To give a precise example let us discuss the outbreak of the war between England and Germany. For brevity and simplicity we shall consider only Germany and England, rather than the Central Powers and the Allies. The analysis would be the same, but to make it would require a great deal more space.

Phenotypical Description.—Before the war both England and Germany were monarchies where the form of government tended more and more towards liberal democracy. Both were large industrial and manufacturing nations dependent for a balanced trade sheet on exportation of manufactures and importation of raw materials. There existed between them the keenest form of com-

[1] In attacking such general problems a great deal of abstraction is necessary. Problems involving smaller groups could be more precisely handled. But as we indicated in Chap. I, these are the pressing problems for social science today.

petition for markets and spheres of influence. Both were interested in trade routes to the Far East through the Near East. England had her Suez Canal, Germany dreamed of her Berlin to Bagdad Railway. This economic competition became so great that finally, as is well known, Germany went to war to secure her "place in the sun" and England to crush Germany.[1]

Internally both countries had a well-defined aristocracy and a bourgeoisie which was moving toward monopolistic capitalism, and which, rather than the aristocracy, was in control of the destinies of the nations. Both countries had a large petty bourgeoisie, and both a still larger proletariat. The classes were so well differentiated that one might say the upper classes in both England and Germany had more in common (*i.e.*, more common membership-character) than the upper and lower classes within the single countries. For instance, marriage between German and English upper classes was looked on as much more desirable than between a worker and the plant owner's daughter in either Germany or England. Except for the well-defined class lines, there was a great degree of freedom for the individual. Many individual Englishman were Germanophiles, for instance, or Labourites (English Socialist Party), or pacifists. Many individual Germans (the Crown Prince the most discussed example perhaps) were Anglophiles, or Social Democrats (German Socialist Party), or pacifists. However, even the class lines could be overcome. Occasional individuals like Lloyd George decidedly "bettered themselves" into the upper classes.

When the war came all was changed. Pacifists like Bertrand Russell were jailed, the Crown Prince threw away his English tweeds, the Social Democrats and the Labourites forgot the class struggle to fight the war to its bitter end. The freedom of individuals to do and think as they pleased was severely diminished. The common membership-character between the upper classes of both nations disappeared. "Better to be an English miner than a German prince." The class differentiation in the respective nations was diminished. One of the most common plots for wartime movies, for instance, was the successful love affair between an upper-class officer and a Y. M. C. A. entertainer or nurse from the lower classes. In life such affairs usually turned out badly at the end of the war.

[1] Lack of space prevents documentation for such widely known facts as appear in this and the following paragraphs. *Cf.* Cole and Cole(64), Lenin(189), Buchan(44), Barnes(12).

Of that we shall speak in more detail later. In brief, the aims, goals, attitudes of the individual changed, freedom of belief, speech, and action were diminished. One might say the whole social psychology of the individual changed as the nations went to war. Let us now give a field-dynamical characterization of these changes and see what of the phenomenal changes we can deduce from it and how necessary these changes are.

Genotypical Description.—The field-dynamical characterization of the two situations is given in Figs. 18 and 19. Let us pause to review briefly the genotypical concepts used.[1] The boundaries which define membership-character are given by the closed lines and the type of membership-character is indicated by the initials in these boundaries. Thus N indicates national membership-character, P_1, proletarian membership-character, P_2, pacifist membership-character, etc. Membership-character includes those reactions common to members of a group which derive from their membership within the group. It is indicated by a boundary, because in the social-psychological sense certain barriers must be overcome to gain membership-character by an individual without the group (topologically without the region). Boundaries vary in their permeability and this variation is indicated by the thickness of the boundary. Thus in Fig. 18 the boundary separating the bourgeoisie from the petty bourgeoisie is thicker than that separating the petty bourgeoisie from the proletariat because the social-psychological locomotion from the proletarian region to that of the petty bourgeoisie is easier than that from petty bourgeoisie to bourgeoisie. Within the social field there are certain barriers (indicated by Bar_1 and Bar_2) which block certain locomotions. It will be remembered that laws, mores, and taboos all are ordered to the genotypical concept of barrier. Barriers also vary in their permeability, which again is indicated by varying thickness. Thus barrier 1 is less permeable within the region of pacifist membership-character than without it. The meaning of this will be clarified shortly.

The non-metricized dynamical variants in the field structure are indicated by the index figures, which are superimposed on the topological charts. Thus the potency of national membership-character is given the index assignation 2 in Fig. 18 and 5 in Fig. 19. It will be recalled that by the potency of membership-character we mean the relative power a membership-character has in determining

[1] *Cf.* Chap. III, where these concepts are introduced with various examples.

the social-psychological reactions of the individual. Thus in wartime nationality becomes relatively more important than social class, while in peacetime nationality and social class are of approximately the same importance. The degree of freedom of social locomotion is also indicated by index figures. By degree of freedom

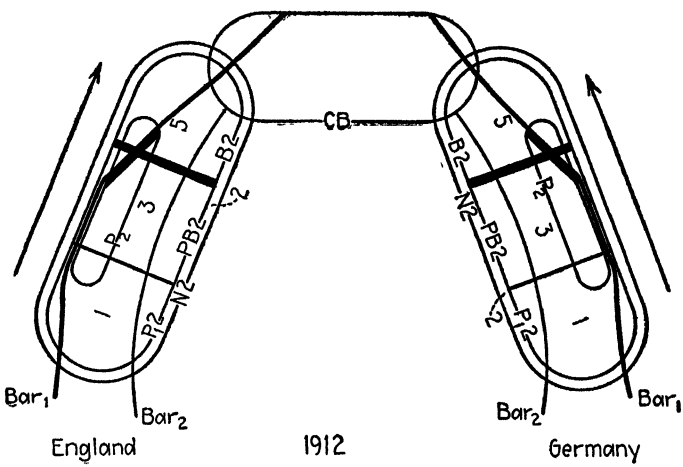


FIG. 18.—Showing the field structure of England and Germany in 1912. *N2*, national membership-character of potency 2; P_{12}, *PB2*, *B2*, class membership-character and potency; P_2, pacifist region; *CB*, common bourgeois membership-character; Bar = barrier; 1, 2, 3, etc., degrees of freedom of social locomotion.

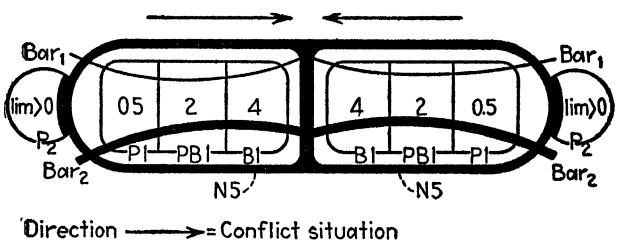


FIG. 19.—Field restructurization of nations at war. For meaning of abbreviations see Fig. 18 and text.

of social locomotion is meant the relative number of social locomotions possible within definite social fields. Thus the bourgeois has a higher degree of freedom than the proletarian.

Limitations in Meaning of Index Figures.—In order that the positive meanings as well as the limitations of these index figures be understood let us recall our earlier discussion of non-metricized index figures. These are figures assigned to the various dynamical charac-

teristics of the social field on the basis of various statistics and measurement techniques. Consequently they may not be considered real metrical indices. We are quite sure that in Fig. 19, for instance, the freedom of social locomotion of the bourgeois is greater than that of the proletarian, but *not* that it is precisely eight times that of the proletarian; in other words, for our index figures, that $5 > 4 > 3 > 2 > 1 > 0$ always holds, but that $4 = 2 \times 2 = 4 \times 1$ does not necessarily hold. This must be kept in mind in order to avoid confusion all through the following chapters of the book.

Furthermore, index figures must be assigned on different statistics and data for various analyses within the book. Consequently a potency of membership-character of four does not always indicate exactly the same potency throughout the book as based on any absolute standard. We are interested in social dynamics, however, not social statics. Care has been taken that the relative values of the various index figures applicable to the individual analyses are accurate. *As a general rule these indices may be compared only within the various chapter subheadings.* It is scarcely necessary to make any particular apology for the shortcomings of the index figures. They represent simply the best which can be done with available statistics and other techniques.[1]

With the definitions and reservations just considered in mind the following lines should be easily comprehended. Both England and Germany before the war are to be ordered to fields of fairly high degree of freedom of social locomotion, although the intranational regional degrees of freedom of social locomotion show decided variation between the upper class, petty bourgeoisie, and proletariat regions. There is a region of common membership of the upper classes. The variation in membership-character is great in all regions. The pacifists in both countries are to be ordered to subregions within each of the class regions. The pacifists however are largely of the petty bourgeois social class. This accounts for their ineffectiveness when war actually comes. The bourgeois make the war in economic interests. The proletariat fights the war and manufactures the war supplies. The petty bourgeois are, with few exceptions, not essential to the war situation. The pacifists are weakly organized and with the change in field structure their organization in most cases is completely lost. This could be shown of other

[1] *Cf.* Appendix A.

variations in opinion if space permitted. The boundary permeability is relatively lower between the proletariat and petty bourgeoisie than between the petty bourgeoisie and upper class. That barriers vary in frequency and permeability for all classes is indicated by the index figures giving degree of freedom of social locomotion within the various class regions. Two definite barriers are indicated in Fig. 18. Barrier 1 represents the taboo against killing Germans for the English and against killing English for the Germans; barrier 2 the taboo against overindulgence in sugar. The barrier preventing overindulgence in sugar is very permeable. The arrows outside the social fields indicate through their directions the competitive situation existent between Germany and England. Arrows directly opposed will indicate a conflict situation, those converging on a common point without the fields one of competition. In this case the competition is primarily economic. The arrows are placed without the field to indicate the dynamics of the conflict situation and have *no* topological significance. This procedure is also applicable to the analyses which follow.

When war actually breaks out there is a complete restructurization of the social field in each country. The competitive situation changes into a conflict situation. The common upper-class region disappears entirely, and the pacifist regions disappear from within the national fields. The pacifists, if they remain pacifists, lose membership-character in the national region. They become segregated outside the national field and the freedom of social locomotion allowed them approaches limits of zero. The intraregional boundaries become more permeable. The barriers become restructured, their previous permeabilities are reversed. (Eating sugar becomes strictly taboo, but killing Germans or Englishmen respectively an easy locomotion. It becomes difficult to produce Wagnerian opera in England and Shakespeare in Germany, etc.) The potency of national membership-character is strongly enhanced. From this restructurization of the field one may *deduce* all the phenomenal changes. Fall in degree of freedom of social locomotion corresponds to limitations of freedom of speech and action and the disappearance of liberal, proalien, and pacifist groups. The restructurization of barriers corresponds to the actual wartime fighting and the changes in mores during wartime. The change in permeability of the class boundaries corresponds to the increased social interaction between different classes of the same nation. The potency changes create the

extreme nationalism of the "Gott-mit-uns" sort on the one side and "Hang-the-Kaiser" sort on the other. Strikes and industrial unrest fall off sharply. In other words the potency of national membership-character is greatly increased, while that of class membership-character is diminished in the war situation.

When the war is over the old structurization is resumed. Of course the exact structurization never returns. Germany is economically crippled and the Berlin to Bagdad railway remains a dream. But the social-psychological attitudes gradually go back to "normal." English and German "high society" resume mutually friendly relations and the army nurse finds herself being snubbed by the officer's blue-blooded family.

Generalizations about the Dynamics of War.—We can hence make certain generalizations concerning nations at war. These actually apply however to the field structure rather than to the phenotypical data.

1. Whenever an organized field (this time the nation) is threatened with destruction from without there is restructurization of the field. This restructurization always tends toward lowered degree of freedom of social locomotion, less variability of membership-character, increased permeability of group-barriers for the groups which retain membership-character, and segregation of those groups whose social psychology does not "change" to the new conditions.

2. The above generalities are applicable to all organized fields. The similar restructurization of the individual as a field will be discussed in the next section.

3. The relationship between the variants in the field structure is one of logical necessity. Hence such questions as "Why do not men keep their liberal opinions in time of war?" are nonsensical. One's attitudes are determined through field structure, not independently in oneself. Degree of freedom of social locomotion cannot fall without lessening of the variation in membership-character. The change from a competitive to a conflict situation cannot be realized without restructurization of both boundaries and barriers.

There is one problem which we must defer until the next section of our work, because only then shall we be in a position to discuss the structure of the individual psychological field; *i.e.*, the role of leadership in the two types of situation. Here we shall only remark that the leader becomes more powerful in the less fluid situation, but that the freedom of leadership is diminished.

We see then that there is a necessary correlation in the phenomenal changes in social psychology which occur in wartime. The individual social psychology is largely deducible from the logically necessary dynamic interrelationships in the underlying field structure.

5. Nations in Economic Depression

In economic depressions, such as we are now experiencing, we find also marked restructurization of the nation as a social field. There are marked similarities to the war situation, in that degree of freedom of social locomotion for all men is diminished. There are also very marked differences; change in social class status is made more difficult rather than easier. We shall see that from the underlying dynamics of the situation we are able to answer such questions as, "Why can we not fight the depression with the type of organization with which we fought the war?" or "Why do individuals lose confidence during the depression?" or "Why must depressions lead to changes in government?"

Economic Bases of Depression.—Everyone knows at least roughly what occurs in an economic depression. There is a tendency for goods to accumulate more rapidly than consumers' power. To maintain a market an ever expanding amount of credit is necessary. Finally the credit system fails to function, loans are called, and for goods to move at all a drastic lowering of prices is necessitated. Goods are sold, if at all, at prices under production costs, production costs are of necessity curtailed, the chief curtailment falls in wage cuts and dismissals, and the consumers' power is even more drastically reduced. This, of course, leads to a vicious circle with further price reductions, further dismissals. Much suffering ensues. Finally the condition is such that the manufacture and distribution of goods are almost at a standstill. At the present time we are not interested in the economic causes of depressions but merely in the effect of depressions on the social psychology of the individuals in a nation. In Part IV of this work we shall return to the underlying dynamical causes.[1]

Phenotypical Description.—During good times, *i.e.*, times of industrial expansion, there is always the tendency for individual freedom of social locomotions for all the social classes to increase and

[1] The above lines are purposely written in very popular style. The economic theories concerning capitalist crises cannot be treated in a book of this scope. *Cf.* Strachey(321).

also the tendency for individuals of the so-called "lower classes" who are particularly able to move into upper classes, to "better themselves." It is true that there are occasional industrial disputes, even strikes, but on the whole the vast majority of individuals are content and believe in the existing system. This is quite clearly indicated, for instance, by the campaign slogans of the presidential election of 1928, "a chicken in every pot," "two cars in every garage," "the time is coming when poverty will be abolished from America"; and by the overwhelming election to the presidency of Herbert Hoover. Individuals in all classes became increasingly

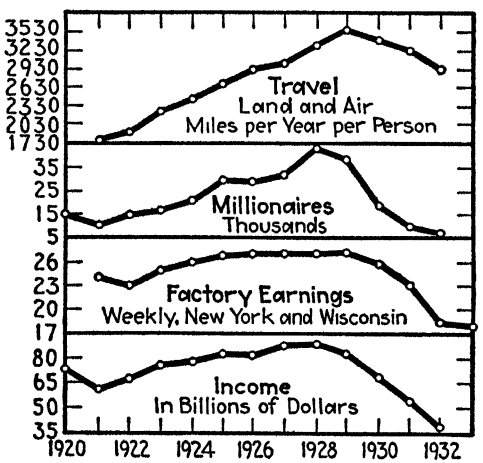


FIG. 20.—Showing index figures on changes brought about during an industrial depression.

freer to make social locomotions, in actual travel, in social betterment, in education, and the like. This is admirably shown in a series of graphs in Ogburn's recent *Social Change and the New Deal*, several of which we reproduce above (Fig. 20).

When the depression comes we have the complete reversal of the tendency towards greater freedom of social locomotion. Many lose their jobs, millionaires become much rarer, travel diminishes, funds for education are diminished. This is also indicated on the charts, and with this come the changes in social attitudes. The chief campaign slogan of 1932 was, "What America needs is a New Deal." The subsequent election to the presidency of Franklin D. Roosevelt was by an even more overwhelming majority than Hoover's in 1928. Individuals are no longer content, few still believe completely in the

unmodified continuance of the present economic system, strikes and industrial disputes have greatly increased.

Genotypical Description.—What is the underlying dynamics of the change from periods of good times to periods of depression? Can the sociological behavior of the individuals be deduced from it? We give immediately again the topological constructs for both situations (Figs. 21 and 22). Here again the reader must keep in

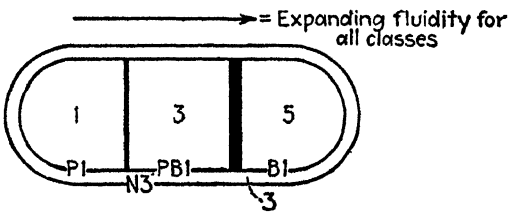


FIG. 21.—Showing field structure for economic good times. $N3$, national membership-character of potency 3; P, PB, B, social class membership-character; 1, 3, 5, degrees of freedom of social locomotion.

mind the meaning of the definitions and the limitations of the index numbers assigned. Briefly again the index numbers are *non-metricized* and are of *relative* rather than absolute value.

In times of economic depression the degree of freedom of social locomotion of all subregions is diminished, the frequency of barriers is increased, the permeability of subregional boundaries is decreased.

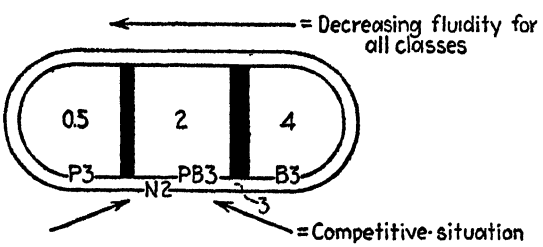


FIG. 22.—Showing field structure for economic depression. (See text and Fig. 21 for meaning of abbreviations.)

The dynamic situation is changed from one of expanding fluidity to one of social class conflict. Under such conditions the potency of class membership-character must be enhanced. Not only is the degree of freedom of social locomotion more severely curtailed in the proletarian region than in the bourgeois region, but also the "gifted" individuals within the proletarian region may no longer make the locomotion into the upper social-class regions. Loss of

freedom of social locomotion always creates individual discontent. (This will be treated from the standpoint of the individual in the next section.) The individual proletarians, who are discontented under conditions of industrial expansion, lack leadership. The presence of potential leaders who retain their membership-character in the proletariat makes the intergroup conflict more likely to develop into overt class war during industrial depressions. Under depression conditions freedom of social locomotion is diminished for all groups, but relatively much more so for the proletariat and the petty bourgeoisie. The upper-class groups strive to hold their existing freedom and so impose even more stringent barriers on the proletariat. In turn, the lower classes, limited in their degrees of

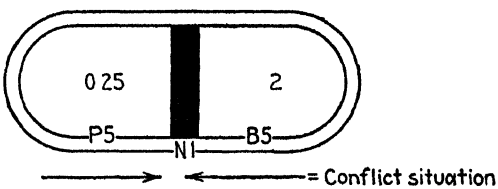


FIG. 23.—Showing field structure for a revolutionary situation.

social freedom by additional barriers, tend to attempt impenetration into the upper class even more strongly. There is likewise a tendency for the petty bourgeois to become pauperized, *i.e.*, to be forced into the proletariat. Consequently, long periods of economic depression may end in a so-called revolutionary situation. This is indicated in Fig. 23. Here the class-membership character becomes so potent in comparison with the national membership-character that there may even result civil war or revolution. We shall have much more to say about this in our chapter on classes, where the field dynamics of industrial unrest will be treated in detail.

The chief difference between war and depression lies then in the permeability of the boundary separating classes, and in the tensional situations. In war there is the fall in degree of freedom of social locomotion, but this fall occurs with an enhancement of national membership-character and a diminution of class membership-character. In depression the fall in freedom of social locomotion is accompanied by an enhancement of class and a diminution of national membership-character. Herein lies the dynamical answer to the question "Why not tackle the depression the way we did the war?" In the war the restructurization occurs in a whole national field as

over and against an outside force (phenotypically, the enemy). In a depression the restructurization is in terms of internal conflict. This leads to an enhancement of class membership-character.

Further, the individual as a point-region meets barriers on every hand and is forced to move in a medium of much lower degree of freedom of social locomotion; he attempts to overcome the barriers in any way possible. Consequently the barriers become identified with the existing government and he changes his political opinions. The consequences of this for the individual may again be treated more adequately in Part III.

We may make the following generalizations about the effect of economic depressions on national social psychology.

1. When industrial depression leads to a fall in the degree of freedom of all the classes, the potency of class membership-character is enhanced and national membership-character diminished.

2. The ease of locomotion from one region to another being diminished, there develops tension between the subregional groups. The upper-class group tends to become more highly organized to maintain its *status quo*, the lower more highly organized in its attempt to break through the barriers.

3. The end state of such restructurization is civil war or revolution.

6. Racial Minorities within the Nation

In practically all modern industrial and semiindustrial nations there is a problem of racial and religious minorities. The history of the conflicts between Protestants and Catholics, between whites and Orientals and between gentiles and Jews is widely known to most students of history and sociology. Today we have the "problem" of the Negroes in the United States, the "problem" of the Jews in Germany, the "problem" of the many races within the boundaries of the U.S.S.R. The presence of racial minorities within the same nation leads always to particular problems of field structure. The situation between the races varies from conditions of mild distrust and suspicion to the actual development of pogroms, race riots, and the like.

The situation of racial minorities depends, as we shall see, on the momentary structure of the social field of the nation. Racial minorities under certain conditions exist fairly amicably, as for instance the blacks in British Jamaica or the whites in Shanghai. Under other conditions racial prejudice is fanned into the white heat

of the pogrom or race war. What are the changes in field structure underlying changes in racial social psychology? In this connection we shall discuss the position of the Negro in the northern and southern states of the United States in times of both prosperity and depression.

Position of the Negro in the United States.—The immediate facts concerning the varying social position of the Negro in the southern, border, and northern states are too well known to require much elucidation. The Negro in the South is sequestered economically (only certain types of position are open to him even in good times), politically (he has no vote), and socially, (social contact between Negroes and whites is for all practical purposes nil). In the border states some of these limitations in his social freedom are

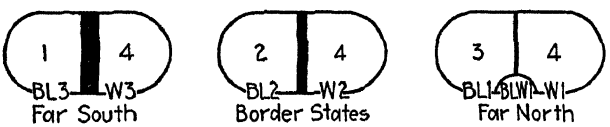


FIG. 24.—Showing field structure for the Negro and white races for different geographical regions. *BL*, Negro region; *W*, white region; *BLW*, region of common membership-character.

removed, and this growth in freedom for the Negro is enlarged as one comes North. In certain sections of New York City the negro is economically, politically, and socially the "equal" of the white. This varying "equality" between American whites and blacks is to be ordered roughly to the above three topological situations (Fig. 24).

In the far South the Negro and the white are separated from one another by very impermeable boundaries. The boundaries become more permeable in the border states, and are quite permeable in the far North. There is actually in the far North a segment of social area (*i.e.*, topological mean) where certain Negroes and whites have a common membership-character. Furthermore, the barriers imposed by the whites on the Negroes are relatively frequent in the South and relatively infrequent in the far North. The reason for this is that in the South the Negro is economically an important competitor of the white through his numerical strength and through his traditional economic position, whereas in the North he has relatively much less numerical strength and is consequently less important as an economic competitor. The effect of the structure of the social field on the intelligence and social attitudes of the Negro will be

treated in our psychological section. Sociologically we are chiefly interested in the possible locomotions which the Negro may make under existing field structure and the effect of changes in field structure on his membership-character. During industrial depression this effect is most marked.

Changing Position of the Negro in Economic Depression.—In times of depression, the barriers imposed on the Negro in the South become even more frequent than they "normally" are. Topologically the situation in the South in times of economic prosperity is indicated in Fig. 25. The proletarian region is largely identical with the Negro region. However, certain segments of the white region overlap the proletarian region and certain segments of the Negro region overlap the bourgeois region. The potency of racial membership-character is much greater than that of class. In times of economic depression the "traditional" race antagonism is at first accentuated.[1] The Negroes as proletarians are the first to suffer dismissals and wage cuts. The economic position of the Negro grows much worse.[2] Consequently his cultural level is lowered. Lynchings increase sharply. The first effect of the economic depression is to accentuate the potency of race membership-character. Race membership-character, however, is subordinated to economic factors. After a time the potency of class membership-character becomes greater than that of race. This is indicated in Fig. 26. In such situations there is increased fraternization between white and black proletarians. The boundary dividing white and black may become so permeable that finally even common membership-character may result. The reasons for this are largely economic in nature. The proletariat is primarily Negro at the start, but with increasing "hard times" a large

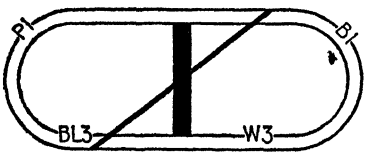


FIG. 25.—Showing the relationship of race to class in economic good times. *P*, *B*, class membership-character; *BL*, *W*, race membership-character.

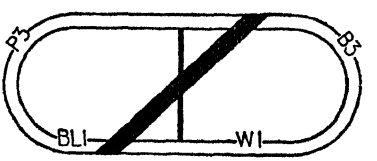


FIG. 26.—Showing the relationship of race to class in economic depression. (See Fig. 25 and text.)

[1] *Cf.* the similar growth of anti-Semitism during the depression in Germany.

[2] For statistical data *cf. Recent Social Trends*(278) and *Labor Fact Book*(178, 179).

percentage of the petty bourgeoisie and labor aristocracy are forced into the proletariat. The forces which separated white from black tend to diminish while those separating upper class from proletariat tend to increase. This has obviously happened in recent events in the South.[1]

We see then that the position of the national minority depends largely on the structure of the total social field. In economic good times all boundaries become more permeable and the frequency of barriers is decreased. In bad times there is a primary tendency to increase the potency of racial membership-character (the membership in the proletariat being at first in great part determined through race). Increasing bad times will, of necessity, accentuate class differences in membership-character and may even give common membership-character to white and Negro proletarians.

7. The Role of the State

Throughout this chapter we have talked of changes in permeability of barriers and restructurization of the social field as if these changes occurred completely automatically and without any conscious intervention on the part of national leaders. In final analysis such is the case. Such changes are determined by changes in field structure, in which the individual consciousness has very little or perhaps even no influence. The changes in field structure "create" the changes in consciousness rather than vice versa. Superficially and on first analysis, however, we say that the restructurization of the social field is brought about by the political leadership of the nation working through the state. We saw above that the state is the whole paraphernalia of government, it is the mechanism through which barriers are imposed and restructured and the permeability of boundaries changed. Through the machinery of the state, war is declared, embargoes are placed, changes in the monetary system are brought about, quotas on consumption are given out by the political leadership. Only after we have discussed the social psychology of the individual (Part III) and particularly the role of the individual in leadership shall we be able to make a complete dynamic analysis of the modern state. For the immediate understanding of this chapter we shall however at this point briefly indicate what our findings will be.

[1] The support of the Scottsboro boys, the admission of Negroes into certain trade unions; *cf.* the play *Stevedore*(268).

The state is the mechanism (*i.e.*, the institutions which have been sanctioned by the authority of the community and which are governed by codified sets of regulations) through which certain classes impose barriers on the other social classes within the national region and to a certain extent on themselves, in order to maintain the position of their own group.

A word of warning is necessary in order that the dynamical situation be properly understood at this point. We by no means intend to imply that these ruling classes consciously and purposefully impose barriers purely out of self-interest. To so imply would not only contradict our basic theoretical postulates but the actual facts in many cases. From such a standpoint, even in times of increasing degree of freedom of social locomotion, we should expect an increase in control by the state rather than the decrease we actually find. Furthermore, the ruling classes almost invariably dupe themselves with slogans of freedom, democracy, equality, and the like. Theoretically, it is the change in field structure, the constant reorganization in pattern, which determines the conscious goals of all the individuals in social fields. Under some circumstances (increasing freedom for themselves) the ruling classes do not "utilize" the state power to impose restrictions. One thing is increasingly certain, however. When the fluidity of the social field falls (which occurs when the organization of the ruling group is threatened), then the activity of the state is greatly increased, and the role of the state in protecting the interests of the ruling classes becomes quite obvious. Such a situation occurs in both wars and industrial depressions. From our later, more precise, characterization of the state we shall see that in this lies the answer to such questions as "why not a gradual, evolutionary constitutional transition to socialism? and "why not national planning under capitalism for the benefit of all classes?"

8. Summary

In this chapter we have seen:

1. We must begin by strictly defining the concepts race, nation, and state. In the following, a race signifies a group of individuals belonging to or deriving from a certain biological subdivision of the species *Homo sapiens;* nation signifies a group of people as an organized body politic, living under control of a state; by state we mean the governmental paraphernalia through which the national organ-

ization is maintained or changed. We then saw that national sociology, being more important in modern civilization than racial sociology, should be dealt with first.

2. We pointed out the various shortcomings in the traditional sociology of nations. These shortcomings are those of all class-theoretical approaches to science: the classifications and abstractions and generalizations have a certain statistical validity but they fail miserably when the structure of the underlying social field changes.

3. A field-theoretical approach to the problems of national sociology can hope for no large generalizations about nations as such. However, under definite conditions for concrete momentary situations topological non-metricized predictions may be made. Furthermore, the necessity for certain correlations between the phenomenal changes may be *deduced* from the underlying field structure.

With these limitations in mind we investigated: (4) the behavior of nations in war, (5) the behavior of nations in industrial depressions, (6) the behavior with regard to racial minorities in modern industrial nations, and (7) briefly touched upon the role of the state in the behavior of nations. For all these problems we saw how the phenomenal aspects of behavior could be ordered to the constructs of field theory, and how, this being done, certain necessary correlations could be deduced. We also saw the differences and similarities in field structure underlying these different problems. In our next chapter we shall discuss some of the problems in connection with the behavior of religious bodies.

Bibliographical Note

For the distinction between races from the standpoint of physical anthropology see Bean(15). The idea of the state developed here is closer to that of Marx than any other sociologist. See Marx(232) and Lenin(186). Our reasons for accepting this view of the state and further references to other viewpoints will be given in Chap. XVIII. A good modern discussion of the state is Laski's *The State in Theory and Practice*(181). The relationships between early state forms, nations, and races is handled by Wissler(364).

There is an immense literature on the psychology of various nations, races, etc., from the standpoint of class theory. Detailed references may be found in Sorokin(308). Pareto(263) also considers this literature. The Aryan myth has been recently successfully debunked by Radin(277). Garth(128) gives a résumé of the scientific psychological studies on racial psychology.

Concerning changes in the psychology of people at war see Trotter(335), Lippmann(211), Schönemann(294), and Lasswell(182). The last contains a good bibliography on war propaganda. Concerning the politico-economic status

of Germany and England before the war see Cole and Cole(64) for a popular account and the references therein contained.

Economic theories of the crisis are discussed in Strachey(321). There is an excellent selected annotated bibliography on books on social reconstruction in the *New Republic*, 1935, **83**, 138–141.

For the position of the Negro in the United States see Herskovits(143), *Recent Social Trends*(278), Chap. XI, and *Labor Fact Book II*(179).

The nation is dealt with from the standpoint of academic social psychology in Sorokin(308), Young(370), Porteus and Babcock(275). Somewhat older is the treatment of LeBon(184).

CHAPTER VIII

THE EFFECT OF CHURCH MEMBERSHIP-CHARACTER

1. Religious Behavior and Religious Organizations

We have just seen that the concept of the nation is loosely used and derives from a class theory. That of the church is in even more need of precise definition. It is difficult even to define religious groups, religious behavior, and the function of the church. Historians, economists, and theologians themselves are not agreed on these points. The thinking of theologians is of necessity highly valuative. Each religious individual is inclined to look on his particular brand of religion as *the* religion. Furthermore, if one attempts to consider behavior purely objectively and then compares the religious behavior of a Roman Catholic with that of a Unitarian, it is difficult to find just what in the behavior of each is identical. Consequently, from the first it must be clear that, as with the nation and national behavior, *the church and religious behavior may not be treated in terms of generalities but must be ordered to definitely structured fields for each concrete momentary situation.* The task is further complicated by the fact that in modern times at least there is a close dependence of religious on national behavior and a growing dependence of religious behavior on the behavior determined by membership in a social class.

Definition of Religious Behavior.—We shall consider as religious all behavior which is concerned with the worship of "God." Such behavior is to be ordered to a social field where the vectors initiating social behavior are directed toward a goal which has social but no physical reality. "God" as goal is not the only goal having social but not physical reality. "God" is to be ordered to a position in the social field outside physical reality, but from which supernatural powers are supposedly exercised on the physical field. Scientists as scientists deny the reality of any such force as a physical entity. Social scientists must, however, deal with "God" as a socially real force. Whether or not "God" is a desirable social force will not be

discussed in this section of our work, which attempts to deal with sociological problems without evaluation.

Religious organizations are to be defined as bounded social fields where the individual point-regions have common membership-character, this membership-character being determined by the goal "God." Such organizations represent the total membership in the various religious denominations. That an individual is a Methodist or a Catholic, however, does not mean that he has any particular control over the official dogma and rules of the church any more than an individual American has any particular control over national policy and law. This control in religious bodies is exercised by the *church*, which we shall define as playing the same role for religious affairs as the state does for national affairs. The church then *represents the paraphernalia whereby the existing structure* (status quo) *of a religious organization is maintained or changed.* It functions to control the permeability of religious field boundaries, to control the structure, frequency, and permeability of religious barriers. The church as the state is subject to field restructurizations. The form of the church is, as we shall see, closely dependent on the structure of the contemporary state. This dependence is not always easily discernible and both state and church derive control from class alignments in the social field. The relationship between various religious sects and the nation as well as between various sects among themselves will be handled in this chapter.

Only rarely do national groups, racial or ethnic groups, and religious groups completely coincide. The relationships between these structures have therefore to be studied. In some cases this relationship is one of smooth functioning, as between Englishmen and members of the Church of England. In others the relationship is one of constant friction, as between the Catholics and the government in Mexico or as between the members of the Greek church and the government in the U.S.S.R. Conflict situations also arise between members of different churches, as at the time of the Reformation and ensuing Inquisition. We must characterize the underlying dynamic situation of religious organizations, see how they are related to the underlying national structures, discuss the function of the clergy within the church, discuss the type of field structure underlying the various sects within the total religious field, and finally attempt to answer the question, "Is religious behavior necessary?" In every case we shall attempt to order phenotypical descriptions to

the correct genotypical descriptions so that we may deduce certain necessary correlations as we did in the case of the nation and national behavior. This may be adequately accomplished only after we have reminded the reader of certain historical changes in the relationship between the church and the state.

2. The Relationship of Church to State

The earliest organizations of humans were on the basis of what may be called primitive communism or communalism. The human social group emerged as human with the beginnings of organization, *i.e.*, from the first it is to be ordered to a structured field. But at first only the simplest forms of private property existed and these forms were regulated by group mores so that they were treated as part of the person. Thus the individual's few articles of personal adornment, clothing, and simple tools were considered as belonging to his person. The original groups were small we-groups, existing together within a limited geographical area. Leaders undoubtedly existed who undertook the roles of both the contemporary church and state, *i.e.*, who regulated the policies of the group with regard to both the natural processes of gaining actual goals and the supernatural processes of reacting to spiritual goals. With the transition from primitive hunting and the merest beginnings of communalism in herding and agriculture to the modern nation and religion, institutionalization of church and state has been accomplished. One hears much of the conflict between the church and the state. Today it is quite obvious that the state has greater general potency than the church in determining through its membership-character the social behavior of the individual. This was not always so.

Loss of Power of the Church to the State.—It is obvious to all discerning moderns that the power of religion and consequently the power of the church is a lesser force than it once was. In the Middle Ages the church forced men to war; in our own lifetimes we have seen it unable to keep men from war. In the Scholastic Era the church was able to dictate not only what man believed about God but what he believed about nature. In the present century its attempts to curtail instruction in the biological sciences have been ridiculed. Thus in the famous Scopes trial the "victory" of the antievolution laws was the cause of much merriment among educated men everywhere. Until fairly recently the church was able almost completely to order men's lives. Usually during the Middle Ages,

the role of the high functionaries of the church was as important as the role of the high functionaries of the state; at times it coincided with it. At one time the Pope was able to keep Heinrich of Germany waiting in the snow for four days; modern popes have been kept bottled up in the Vatican for many years. Similarly, the church was at one time able to excommunicate the German emperor. Recently the German church was almost forced to change its whole confessional at the hands of Hitler. In America this weakening of the power of the church is becoming daily more clear. The Protestant clergy took to themselves credit for establishing Prohibition in America some years ago. These ministers still go on record as favoring Prohibition at their conventions, but Prohibition has been completely repudiated as a policy by most of the American people. The church at one time controlled man's birth, his education, his marriage, even imposed limitations on his trade and business activity, and offered him salvation at his death. Many of the functions of the modern state, particularly those concerning property rights and conjugal relationships, were controlled by the church. In certain areas, as in the Papal State, church and state were practically coincident. Gradually these prerogatives of the church were taken over by the state, so that today in practically all civilized countries the rites of the church in these matters are optional rather than obligatory. Furthermore, there seems to be every reason for believing that the power of the church will diminish even more in the near future. Although church membership remains about constant, this constancy is brought about only through activities which are not in the strict sense of the word religious and the control of the church over its members is obviously on the wane. Membership-character in religious organizations has decreasing potency as a social force. This gradual decrease in potency of church membership-character will be treated in slightly more detail in Chap. XI, where we shall also see its dependence on economic factors. For the present let us simply emphasize the field dynamics of the role of religious membership-character in the modern industrialized nation.

In terms of field dynamics we may say that the regions of the social field in which religious locomotions occur have increased greatly in degree of freedom of social locomotion during the last three hundred years. The church as we have defined it has become less and less potent in setting up barriers and boundaries in the social field. At the same time the potency of the nation as a social

field has been steadily increasing. These differences can perhaps best be seen in the following topological diagrams (Fig. 27).

So far we have been speaking only of the generalized trend and have of necessity made no distinction between different sects and churches, different states, and different nations. In one of the succeeding sections of this chapter we shall discuss the modern dependence of church on state and attempt to see why certain church sects are related to certain state forms. Before we do this, however, let us first discuss the change in the role of the clergy that

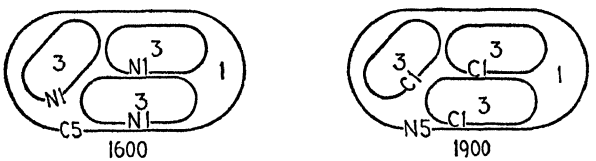


FIG. 27.—Showing the relationship of potency of membership-character and degree of freedom of social locomotion for church and nation in 1600 and 1900. *C*, church; *N*, nation.

is correlated with the growing freedom of social locomotion in the religious areas of the social field.

3. CHANGING FUNCTIONS OF THE CLERGY

With the rise in degree of freedom of social locomotion in the religious field and with the growing tendency of the state to take over the functions of the church, the role of the clergyman in the social behavior has become greatly changed. At one time, as we pointed out above, the church officiated for God at all man's important ceremonies. The power of the church through the clergy was equal to, if not greater than, that of the state. Religious behavior, *i.e.*, behavior directed toward God as a goal, next to behavior concerned with actual attainment of material goals, consumed most of the individual's time. During the feudal period economy was chiefly agricultural, supported by the handicrafts. Most production was natural production, or production for use, rather than commodity production, or production for sale. All these activities were under the regulation of the church. Even such trade as existed had a decidedly religious coloring. All things pertaining to the family were directly under God's guidance. During the Middle Ages practically the whole civilized community had church membership-character. Today only about 50 per cent of the population belong to churches at all and of this 50 per cent only a small percent-

age spend much of their time in the "service of God." Consequently, the clergyman spends more and more of his time in activities which are not strictly religious as we have outlined religious behavior. He does a great deal of social welfare work, a great amount of officiating at church "parties," a certain amount of mild and usually quite inefficient adult education.[1] The officers of the church, the clergy, have their power of leadership decidedly curtailed. Even in the Catholic Church, where the discipline as we shall see is stringent compared with Protestant bodies, it is very frequent for a communicant to leave the church, shrugging his shoulders and with a more or less free conscience, when told he must not marry this person or that, he must perform this or that act. Such behavior was very rare in the Middle Ages. We are not yet ready to discuss the problem of leadership. At this point we merely wish to foresee a conclusion which we shall later deduce field dynamically. *In any social field, increase in the degree of freedom of social locomotion diminishes the potency of leadership but gives it greater freedom of action.* In other words, the changing role of the clergy hangs together with the tendency toward increased degree of freedom of social locomotion of the religious field. *The traditional role of the clergyman, therefore, is being modified by changes in the social field, so that he is less and less concerned with religious behavior and more and more concerned with social work.* In other words (with the exception of the Catholic Church, of which we shall have more to say later), religious behavior occupies less and less of man's time and the clergyman becomes more and more concerned with temporal affairs. The time draws near when organized religion will probably disappear as an important social force. Whether or not this is desirable or how soon this will occur lies beyond the scope of the present work. Since the state becomes more and more potent in determining the degree of freedom of social locomotion, it is necessary to treat the church as a dependent subregion of the national field.

4. The Church as a Subregion of the National Field

In modern times the old struggle of church versus state has in all civilized countries resulted in the subordination of the church

[1] This change in the role of the clergy may be statistically verified in *Recent Social Trends*(278).

as a force to the state as a force. The history of this gradual subordination will be touched on in Chap. XI. At the present time in most industrialized nations of the western European culture type, the church is to be ordered to a region of less potency of membership-character within the national field. To illustrate this characterization let us describe, first phenotypically and then genotypically, the behavior of organized religion in Germany and England before and during the war.

Phenotypical Description.—In both England and Germany, before the war, the religious behavior of individuals was decidedly freer than their national behavior. By freedom we can only mean freedom of social locomotion toward goals. This freedom is limited by barriers imposed by the church and the state. Thus we are able to say that behavior under control of the state is less free than behavior under control of the church, if the barriers imposed by the state are less permeable than those imposed by the church. In modern life, for most people, when a locomotion is blocked by both state and church barriers, those imposed by the church are more permeable. Thus in the prewar period of both Germany and England, one could violate religious taboos (playing cards on Sunday) more easily and with lesser consequences than one could violate national taboos (property rights, etc.). While national behavior was rather decidedly limited in its freedom, there was a great freedom in religious belief and religious behavior. Pacifist sects and Christian socialists could exist side by side with the official churches. All in all, organized religious groups could be looked on as dependent groups in the national field. Except to a few individuals the potency of national membership-character was much greater than that of the church.

Where the church claimed certain loyalties of its communicants, as in matters of marriage, divorce, education of the children, and the like, and where simultaneously these functions were under control of the state, a superficial analysis might convince one of the power of the church. Actually such power is superficial and represents functions now actually controlled by the state. The individual is much more bound by the marriage laws of the nation than he is by the church ritual of marriage. A Catholic remains factually unpunished if he marries a Protestant before a justice of the peace even though his conscience may trouble him decidedly. At all events, in the social-psychological sense the barriers imposed by the

church, while sometimes seemingly as impermeable as those imposed by the state, have their real strength in the state's power rather than that of the church.

When nations go to war or undergo severe industrial panics or revolutions so that the national social field undergoes radical restructurization, the church is invariably affected also. To return to our example, in Germany and England we find the independence of thought and action which the churchman held previous to the outbreak of the war seriously diminished. The pacifistic and Christian socialist elements in the church are isolated. Furthermore, the church is forced against its established principles to support the state in an action which must have been previously reprehensible to churchmen as such. The previously pacifistic clergy somewhat ridiculously now support the war. The English clergy pray for the defeat of the "Huns" and sing hymns of hate against them, and of course the German clergy are very busy asking God to punish England. "Gott," was, as is well known," mit beiden Seiten." The differences between Christians as such and Englishmen and Germans changes into almost purely a difference between Englishmen and Germans. The flag is borne with the cross in the processionals, the younger clergymen put on the uniforms of chaplains, the Altar Guild forgets the altar in the rush of knitting socks for soldiers, and war loans are peddled at the church bazaars.

It is true that for certain individuals the potency of membership-character in the religious organization remains stronger than that of the nation. These individuals make up the larger part of the so-called pacifists and conscientious objector groups. Even certain churches as such refuse to support the war. They are however comparatively insignificant and the dissenting individuals become social pariahs. The conscientious objectors and "slackers" in all countries are treated almost as badly as enemy aliens. In the United States the history of the government military prison in Leavenworth is most enlightening on this point. Discipline was as strict as and conditions even worse than in many of the camps for militant aliens.

Genotypical Description.—Field dynamically, the situations are given in the following topological diagrams (Fig. 28).[1]

[1] At the risk of our being tiresomely repetitious the reader is reminded of the limitations on the index figures as used in these analyses; *cf.* Appendix A, Chap. III, and Chap. VII.

Before the war the members of religious organizations have also membership-character in the national social field. The potency of national membership-character is greater than that of religious membership-character and the degree of freedom of social locomotion less for the national region than for the religious region.

During the war the social field is restructured in such a way that these differences are decidedly enhanced. The potency of national membership-character becomes very great for the vast majority of nationals, while religious membership-character potency is decidedly diminished. Changes in consequent amounts occur in the degrees of freedom of social locomotion. The church becomes more dependent on the state than it was before. Those church

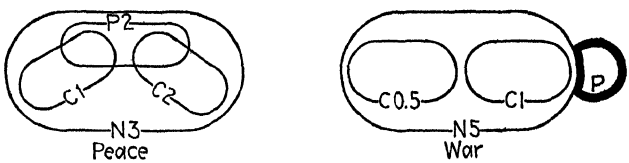


FIG. 28.—Showing the field structure of church (*C*), nation (*N*), and pacifist groups (*P*) during peace and war.

members who retain strong religious membership-character lose membership-character in the reorganized church and nation. Furthermore they must now be ordered to a region of the social field separated from their previous church brothers and countrymen and separated from these by a very impermeable boundary. The barriers imposed by the state and those imposed by the church become practically identical. The clergy now become leaders in the national sense. Thus we have a complete change in the social psychology of the religious leader. Previously he abhorred war, now he makes sermons in support of the war, while the ladies of his Altar Guild are making bandages and his vestrymen are selling war loans.

The field dynamics of this restructurization is practically identical with and to be derived from that already given for the nation. The church in modern times represents no independent field within the nation but a dependent subfield. The change in social psychology of the religious individual is chiefly conditioned by the change in potency of national membership-character. This does not mean that certain individuals do not remain loyal to the ideal of the church. Sociologically speaking, however, where we are treating

the individuals as point-regions they may be left out of consideration. In general we may say that when the modern nation goes to war the potency of national membership-character is enhanced far more than that of the church. The church must either accept the war, or allow its members to lose national membership-character, or lose its members.

The situational dependence between church and state above described obtains in field restructurization in times of revolution or industrial crisis. Lack of space prevents a detailed analysis of the history of the church following the Russian Revolution of 1917 or the industrial crisis leading to Hitler's accession to power in 1932. Students familiar with church and European history will readily see for such instances the necessary correlations between church and state in terms of field dynamics.

5. Dynamical Variants in the Field Structure of Various Sects

So far we have spoken loosely of religious fields as if all churches subscribed to the same dogmas, placed or attempted to place the same restrictions on their individual members, and were consequently to be ordered to the same type of field. Actually the various religious bodies vary in their underlying dynamical structure from place to place and from time to time as much as nations do. In fact their variation is closely related to that of the national field. This has been realized by practically all systematic sociologists for nearly a century. Later we shall have occasion to speak of some of the theories of this interrelationship in more detail. For the present it suffices to state that while this interrelationship is generally recognized there is decided difference in opinion as to whether changes in the field structure of the church and religious organizations create restructurization of the national social field or vice versa. It is the opinion of the German sociologist Weber(345) that the growing Protestantism created the capitalist economics and the liberal democracy, while Marx(236) holds that capitalistic economics created Protestantism. The interdependence of church and state has been indicated in the discussion of the changing relationship of church to state from the Middle Ages to the present. It is likewise obvious in national field restructurization in times of war. In the following we shall speak more definitely of the differences in genotype between the Protestant and the Roman Catholic churches in indus-

trialized nations of today. Before we do this, however, let us look at the relationships existing between religious organizations in general.

Religious Membership-character.—In the social-psychological sense all religious organizations have an in-group feeling against people without religion. A first differentiation then is that in matters religious all humans may be divided into theists and atheists, each group being ordered to separate social fields. That there is common membership-character between certain Christians, Buddhists, Mohammedans, etc., is shown by the respect with which writers of different creeds speak of the foundations of other "great faiths" in books and courses on comparative religion and theology. In the broadest sense, however, this common membership-character is one marked by very weak potency of membership-character. For example, it is probably only professional Christian theologians who feel that they have more in common with Mohammedans than with atheists of their own national standing. Certainly during periods of national stress, particularly when a conflict situation arises between them and another nation, this common membership-character may be completely abandoned. Furthermore, as we pointed out above, even the common Christian membership-character is dissolved when Christian nations fall into imperialist wars.

As we pointed out in our discussions of classification, however, the in-group–out-group distinction may be more precisely formulated field-theoretically to allow for finer distinctions. If religious individuals in general have common membership-character, it is strikingly obvious that various subgroups within this larger group have membership-character of various degrees of potency and that under circumstances the in-group–out-group antithesis is applicable to them. Consequently the division theists-atheists must be enlarged. This further subdivision takes the form, theists into Christians and heathens, Christians into Protestants and Catholics, and Protestants into the various Protestant denominations. Each of these forms an in-group against all surrounding groups, but retains under circumstances the in-group characteristics with the immediate surrounding groups over and against the more distant. Hence John Smith, a Methodist-Episcopalian, has in general common religious membership-character in the Methodist-Episcopal region, the Protestant region, the Christian region, and the theist region. However, we must stress again that such generalizations may be misleading because of dynamical restructurization of social fields.

Furthermore, we must again stress the modern dependence of church on state. With this in mind the topological characterization of religious organizations given in Fig. 29 should be understood.

In the above discussion of religious sects we limited ourselves solely to the topological aspects of these sects as fields. We may also characterize religious behavior in its dynamical aspects. To do this for all the subdivisions just mentioned would be a task which is beyond my competence and for which the proper statistical and experimental indices are not available. We shall hence limit ourselves to a field-theoretical description of the Protestant Church and the Catholic Church as religious fields.

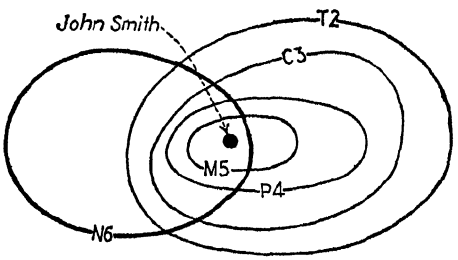


FIG. 29.—Showing the finer distinctions in religious group membership-characters of a given individual. *M*, Methodist region; *P*, Protestant region; *C*, Christian region; *T*, Theist region; *N*, national region.

Catholicism and Protestantism.—The phenotypical differences in the dogma, ritual, and discipline between Catholicism and Protestantism are so well known as to scarcely require elucidation. The credo of the Catholic is rigid with regard to the dogma of the Immaculate Conception, the infallibility of the Pope as spokesman for God, the efficacy of the rites of baptism, confirmation, marriage, extreme unction, etc. The Catholic ritual is highly organized and institutionalized. The discipline affects the Catholic's nutritional life (through the set fasts), his sexual life (through the prohibition of birth control), even his economic life. In all these spheres except perhaps the economic the Protestant is allowed a greater latitude, his "conscience" dictates his beliefs, his ritual is always less institutionalized, the rules of discipline are always less stringent. Furthermore to attain membership-character in the Catholic Church one must go through a fairly definite period of instruction and be able firmly to assent to the dogma. One can join most Protestant sects by simply attending the services.

Genotypically the structural differences between Catholicism and Protestantism are indicated in Fig. 30. In the light of the past exposition this should be self-explanatory.

It must be stressed again that we are here concerned only with behavior of the sort previously defined as religious, *i.e.*, behavior toward a socially real but physically non-existent goal, God, which supposedly can intervene and change the functioning of natural law. Consequently, the fact that in purely "temporal" as opposed to "spiritual" affairs the Protestant Church subjects its members to discipline where the Catholic does not is no contradiction of our assertions. The Catholic Church was not concerned with Sunday "blue laws," prohibition, and the like. The Catholic Church as a body took no official side in the World War. These things however have nothing to do with religion as field-theoretically defined. The activity of Protestant clergymen and laymen in many "reform" movements simply is indicative of the fact already pointed out in this chapter of the growing temporalization of the Protestant churches.

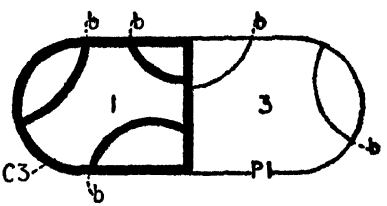


FIG. 30.—Showing the field structure regarding religious behavior of the Protestant (*P*) and Catholic (*C*) Churches. 1, 3, degree of freedom of religious locomotion; *b*, barrier.

The given dynamical and topological characterization, like all others, is approximate and applicable only to concrete momentary situations. Both Catholic and Protestant churches vary in their structural aspects with changes in the national field. This following fact is of the greatest importance. The structure of the Catholic Church is such that it is less dependent on the national field structure than is the Protestant. This is because the organization is highly structured and toward a definite non-physical goal. This is borne out by the comparative action of the Catholic and Protestant churches in the late war and perhaps even more precisely by recent events in Germany. The German Lutheran Church capitulated fairly readily to Hitlerism, the Catholic has not yet done so. Consequently, although the Catholic does not often concern itself with temporal affairs, when through outside forces it must do so to preserve its organization, it is more successful than the Protestant Church because of its existing highly structured organization and greater stability. Conversely, the power of the Protestant Church

depends on, and is only an auxiliary force to, the power of the existing structure of the national field. When the aims of the church and the state are the same the church apparently wields power. When they separate the church is powerless.

All this leads us to believe that the Protestant churches will lose more and more influence in succeeding years. The cultural (as opposed to the economic) history of the last centuries has been the history of the decline in the ability of the organized churches to impose barriers on the temporal behavior of its members. Certain great fields of this behavior are now disciplined by the scientific attitude rather than the religious, certain other even greater fields are disciplined by the state. Science has robbed the church, among educated people at least, of its infallible dogmas and the state has taken over the policing power which was once the church's. The day that Luther tacked up the Wittenberg theses marked the end of the church as a power of the rank of the state. But Luther and his immediate followers little realized the step they were taking because they were quite incognizant of the intimate relationships between national and religious fields which we are now discovering. It is more than probable that religion is a dying issue for modern man. Until it is dead, however, Catholicism rather than Protestantism will be the more powerful force.

Not only are both Protestantism and Catholicism dependent on national field structure, but their field structures vary locally. The dynamics of the conflict situation in general has been already treated in Chap. VI for nations. In certain geographical areas and at certain historical times, particularly where the people are about equally divided and where membership-character in either the Catholic or the Protestant group is usually associated with a racial or class membership-character, such conflict situations often develop. In these cases both groups become more potent in their membership-character and the degree of freedom of social locomotion for each is lessened. In such cases we have religious conflicts which sometimes assume the dimensions of religious wars. Here, however, the conflicts between the religious groups are always associated with class or race conflict situations. The great example of such a struggle, fought in the name of religion but actually on the basis of economics, is to be found in the religious wars of the seventeenth century. Consequently, today when conflicts arise one must examine the relationships of the churches involved to state, race, and class.

6. The Social-psychological Effect of Church Membership-character

The ideas and ideals, the beliefs and doubts, the drives and ambitions of the individuals within any social space are derived from the structure of this social space. Consequently the structure of the field in which an individual has religious membership-character is of the utmost importance for his attitudes and his activities. From the field structure we are able to draw certain definite deductions.

Since the Catholic field has a lower degree of freedom of social locomotion, greater potency of membership-character, and less permeable outer-barriers than the Protestant, the religious behavior of the Catholic must differ from that of the Protestant. Everyone knows that it does. The faith of the Catholic is more definite, more prescribed, more certain than that of the Protestant. This comes from the definiteness of the structure of the field. The power of the taboos and mores is more striking, and this is ordered to the lesser permeability of the barriers in the Catholic field. It is harder to gain and harder to lose membership-character in the Catholic Church. Dynamically, again, the boundaries are less permeable. This characterization allows us to draw one very important conclusion. For the individual, Catholicism represents a much greater controlling force toward religious behavior than Protestantism. If such control is a good then Catholicism is the greater good, if it is a menace then Catholicism is the greater menace. Problems of social ethics however must wait for their attempted solution until problems of social science are better understood.

7. Is Religious Behavior Necessary?

One frequently hears from religious people, or reads in books written by them, that religious behavior is a necessary form of behavior, that men are "by nature" religious, that a supernatural spiritual force, or God, can be proved to exist. Let us see the basis for these arguments in the light of our field-theoretical analysis of religious behavior.[1]

[1] It is hoped that the purpose of the following paragraphs will be rightly understood. Whether religious behavior is "good" or "bad," "desirable" or "undesirable" does not concern us. We are not interested in "attacking" religion, but only in investigating its necessity as a form of social behavior.

Two Types of Argument Involved.—There are really two basic types of arguments involved. One supposes that God actually exists, that the human soul is really immortal, and that these things may be scientifically proved. It is, of course, possible to suppose the existence of God without supposing human immortality and it is possible to suppose existence or survival of the human mind after death without positing God. Such refinements, however, will not concern us here. The chief position to be discussed here, that of the Christian theologian, is that God exists and that the human soul is immortal. Our first problem is to see what the social psychologist has to say to this proposition. The second type of argument admits that both the existence of God and the immortality of the human soul are unproven, but affirms the necessity of religious behavior on either psychological or ethical grounds. This second argument is more worthy of attention by modern scientists. We shall be able to deal with it stringently, however, only after an extended consideration of the first problem.

In Chap. I we gave in some detail the reasons why natural science must adopt no explanations based on spiritual forces. Briefly we saw that science, consisting as it does of postulates to which competent observers could give universal assent, could not accept any unobservable causal force like God. Similarly science, being unable to observe it, must get on without the concept of the disembodied soul. Now it might be pointed out by a theologian that science uses many constructs, like the gravitational field, which are not directly but only through their workings capable of observation. This is quite true, but those constructs which science uses are capable of operational definition and experimental verification under conditions of human control. God being by definition omnipotent and mysterious in his workings cannot be so treated. Likewise the soul, if it is free, is beyond scientific investigation, and if it is not free it is no soul, at least in the original sense of the word. Those liberal sects and individuals which deny supernaturalism to God and freedom to the soul are really not religious at all in the old accepted sense of the word. They are simply ethicists who attempt to be scientific without any scientific background Such individuals do work which is educational, without being trained pedagogues; which is sociological, without being trained sociologists; and which is psychiatrical, without being trained psychiatrists. Consequently natural science and religion cannot be accepted side by side. One

must either believe the scientific position or the religious position or be in a continual logical confusion.

But are there not other proofs of God's existence and man's immortality than the scientific? We might shorten the argument by defining proof in terms of science and that is what we shall do. But let us first, for clarification, proceed more cautiously. It is quite true that a certain number of humans believe both in God and in man's immortality. They do this, as Broad(31) has pointed out, on the basis of: (1) divine revelation, which assures them of it; (2) the word of someone in authority; (3) metaphysical arguments; (4) ethical premises; and (5) supposed empirical evidence.

The Argument of Divine Revelation.—Divine revelation comes from mystical experience in which God shows himself to the individual in question. Very few individuals receive such "visitations" or "calls." Consequently these psychological phenomena have no value as inductive generalities. Modern studies in psychopathology have enabled us to see in these cases of personal visitation simply the workings of disordered minds. The great Viennese psychopathologist Freud(117) has even developed a scientific theory as to the *natural* development of such alleged supernatural phenomena. And a scientific theory is always better than supernatural belief.

Authority.—Acceptance on authority likewise cannot be considered proof. Although we accept many things concerning natural events on authority, we do this because we suppose (and rightly) that, were we trained and equipped as the authority is, we would observe things as he does. This is not so in the case of matters of theology and immortality because the original observation of the authorities are in themselves cases of "visitation."

Metaphysical Arguments.—The various metaphysical arguments, which were popular through the Middle Ages and early modern times have all been shown to be invalid by competent philosophers. The recent trend has been away from metaphysics completely, because metaphysical propositions are usually quite meaningless, *i.e.*, incapable of verification.

Ethical Premises.—It is argued that certain ethical postulates become meaningless unless one supposes God and immortality. Thus one argument states that were it not for the fear of God and the desire for personal immortality, all individuals would be selfish, dishonest, and spend their lives in the unethical enjoyment of the "fleeting moment." Such behavior is, most men agree, unethical.

Therefore such ethical postulates imply the existence of God and personal immortality.

Broad(31) has refuted these arguments very decisively on logical grounds. But an even more stringent empirical test of this argument is at hand in the Soviet Union. The leaders in the Soviet Union are all atheists and materialists. But, and here most informed Christian ethicists are in agreement, the individual and social ethics of the Communist leaders toward the vast majority of the people are above reproach from the standpoint of the basic tenets of applied Christian ethics.

"Experimental Evidence."—Every so often actual "scientific" proof of personal immortality is offered. These "experiments" invariably influence powerfully a certain number of individuals already wishing to believe. *Invariably in the past these demonstrations have been shown to be either hoaxes or improperly controlled pseudo-experiments. There is every reason to believe that future "experiments" along these lines will likewise prove nothing.*

Consequently, we must conclude that there is not the slightest proof either for the existence of God or for the immortality of the soul. A scientist must in the light of all this evidence seriously doubt both God's existence and the soul's immortality. There are two general positions he may take; one the agnostic, the other the atheistic. The agnostic holds that we can never know whether God exists or whether the soul is immortal, at least through scientific methods. Modern philosophical researches have shown that unanswerable questions are meaningless, that "a difference which makes no difference is no difference."[1] Consequently, our behavior as scientists cannot be affected by our belief in God. Therefore science may just as well take the atheistic position which denies the existence of God and the materialist position which denies the existence of mind without the body.

Necessity for Religious Behavior on Psychological or Ethical Grounds.—The second problem remains. It has been claimed that although the existence of God and personal immortality is far from certain, religious behavior is still necessary for psychological or ethical reasons. We shall deal with both of these in some detail.

Psychological.—It was previously held that all men are by nature religious. The irreligious, the agnostics, and the atheists were held to be abnormal. Thus through class-theoretical analysis

[1] *Cf.* the discussion of operational analysis in Chap. III.

religiosity was posited as an invariable trait of human nature, an instinct. There is no need to repeat the detailed analysis of the instinct social psychology which we made in Chap. V. *There is no religious instinct.* It is quite true that there have been periods when the vast majority were religious and even when the religion was standardized. In recent times, however, the varieties of religious belief in those who hold religion at all is so great that to speak of a specific religious instinct is to talk nonsense.

There is no general necessity on psychological grounds, then, for religious behavior. Is it necessary for the individual who is religious to be so? We believe in strict psychological determinism, and in the light of this we must answer this question in the affirmative. But each psychological event is determined in the psychological field and certain aspects of the psychological field are susceptible to manipulation. Consequently, the individual may be made more or less religious by such manipulation. Religiosity, like all personality traits and attitudes, is acquired within the psychological field. The Russians have recently almost completely abolished religion. We shall first be able to discuss the effect of religious behavior for the given individual and its significance for him in Part III. But we believe there are no stringent psychological reasons for supposing religious behavior necessary.

Ethical.—Thus we have seen that the existence of God and immortality is quite questionable and that man is under no psychological compulsion to believe in either of them. The ethical question arises, "Should he believe in them anyway in order to lead the 'good' life?" There are several forms of the ethical argument. One of the most popular has been dealt with above. We saw that there was no reason to believe that man without faith in supernaturalism was in any way destined to become ethically degenerate. Man's aims, attitudes, and ambitions are determined by the structure of the social field, not by any particular theological belief. Ethical behavior is quite as possible on a naturalistic as on a supernaturalistic basis. Freud(117) and Barnes(13) even argue quite convincingly that the most effective modern ethics are naturalistic.

Another argument pertaining to the ethical necessity for religion is based on the compensation value of religion. Not everyone, the argument runs, may have a successful, happy life. Unsuccessful lives are given meaning and dignity by religious behavior. The vast majority of the people are destined to poverty, stupidity,

mediocre health, and little beauty. Religion is necessary to give them some reason for living. This argument is not only unsound from the standpoint of field theory, but in itself ethically vicious. We know very definitely that the stupidity, poverty, lack of health and pulchritude of the masses are nothing inherent in nature, but result chiefly from a social-psychological field of definite structure. What this structure is can only be described in Part IV. For the present we may conclude: *there is absolutely no general necessity for religious behavior but religiosity in both its forms and its strength is determined in the social-psychological field.*

8. Summary

In this chapter we have seen:

1. There is little agreement among social scientists as to what constitutes religion and religious behavior. We believe that some clarification was given this problem by definition in terms of field theory. Religious behavior was defined as behavior toward a goal without physical reallty but with social reality, God. Furthermore, God is considered by the truly religious as having the ability to intervene in the affairs of nature. Religious organizations are organizations having common membership-character toward a common goal, *i.e.*, God. The church was defined as the paraphernalia whereby the given structure of the religious organization is maintained or changed.

2. We saw that historically the potency of religious membership-character has been on the decline these last three centuries. The original functions of the church have gradually been taken over by the state until they are now practically nonexistent. This decrease in potency of religious membership-character is correlated with a growth of freedom of social locomotion in religious behavior.

3. This led to a discussion of the role of the clergyman in modern society. We discovered that with the increase in religious freedom, the leadership potency of the clergy is diminished. Consequently, we find the clergyman mixing more and more in temporal affairs and devoting less time to truly religious behavior.

4. In modern industrial nations the church must be treated as a subregion of the national field. This means that the structure of the church as a field must change with changes in national field structure. The Catholic Church retains more of its original field structure than the Protestant.

5. We saw, further, that the various sects could be topologically characterized in their mutual interdependence of membership-character. This interdependence varies with the structure of the national field. The dynamic differences between Catholicism and Protestantism were discussed. From them it was concluded that Catholicism is more likely to retain potency of membership-character than is Protestantism.

6. From this it follows that membership-character in the Catholic Church is a greater force for molding personality than in the Protestant.

7. From the standpoint of social psychology there is no necessity for religious behavior. There is no scientific proof for the existence of either God or personal immortality and there are no reasons why individuals should believe in them be they true or false.

Bibliographical Note

The characterization of the various sects and religious faiths is to be found in the following books on comparative theology and religion: Browne(42), Hopkins(153), Hume(159). The relationship between church and state in modern times has been most exhaustively treated by Weber(345). The treatments of Marx(236) and Engels(95) are also very important. The history of the relationships between science and theology has been admirably written by White(356).

Data on the changing function of the clergy in the United States are given by Fry(124). The position of the church and its clergy during the war is given by Abrams(1). The differences in social-psychological effect of Catholicism and Protestantism are given in Young(370). There is a fairly complete bibliography on religious psychology in Runze(291). There are good annotated bibliographies on the psychology of religion in the *Psychological Bulletin*(70, 71).

The problem of the necessity for religion is handled: *pro*, by Niebuhr(258), MacMurray(224), Wieman(360); *con*, by Broad(31), Freud(117), Marx(236).

CHAPTER IX

THE EFFECT OF SOCIAL CLASS MEMBERSHIP CHARACTER

1. Are There Social Classes?

In Chap. VI we introduced the classification of social groups on the basis of the role of the group in the economic productive process. The members of a social class are all the individuals who stand in like relationship to the process of production. We there distinguished; proletarians, who have little or no property and who exist through their ability to exchange their labor power for wages; petty bourgeois, who own some property but whose existence depends chiefly on services rendered for salaries or fees or who are small merchants; and bourgeois, who actually have property rights to the means of production and who exist by virtue of these rights. Although there is little question that such a classification is possible there is the greatest disagreement amongst sociologists and economists as to its significance.

The Chief Positions Regarding the Importance of Social Classes.—Actually one of the most debated and at the same time least decisively debated, because it is one of the least understood, problems of sociology today is the question of the existence of social classes as *definite forces* in sociology. Many writers who admit the existence of social classes as entities refuse to admit that these classes have varying interests. Hence before we can give an answer to the basic question, "Does the existence of such groups as capitalists and workers, whose aims are antagonistic, create differences in social attitudes between their members which may lead to social change?", we must find an affirmative answer to the question, "Are the aims of capitalists and workers antagonistic?" It is commonplace knowledge that a considerable number of sociologists not only deny that there is a class struggle but take great pains to point out that the aims of capital and labor are, and must be, convergent for the common good of both. Such individuals when faced with the situation of a widespread wave of serious industrial unrest, such as

America experienced in 1933–1935, must admit that on the surface at least the aims of capital and labor do not seem to be convergent. But instead of clearly analyzing the situation they quite often speak of a slight misunderstanding between the two camps, fanned into riotous violence by professional agitators. Other sociologists have always affirmed the reality of the class struggle and the reality of a difference in aims between capital and labor with regard to present definite goals. And there are certain sociologists who have always taken the position that there are always social classes, that the aims of these classes are divergent, that the classes are in a perpetual struggle for power, that this struggle in its acute and revolutionary manifestations is the great motive force which has created the progress of the past and will create the progress of the future. This position is that of the German economist Marx and his followers. Hence differences of "opinion" concerning the mere existence of social classes with divergent social or economic aims, range *from* the outright denial of such "un-American (or un-German or un-British or un-whatever the country in question) and antisocial pseudo-antipathies," *through* a polite ignoring of the whole problem, *to* the attempts of the Marxists to make the class struggle the basic dynamic factor for social and economic theory.

Attitudes Regarding Classes Determined by Class Membership-character.—Now before we go on to a more precise analysis of the concepts involved and attempt to define classes in terms of their underlying dynamic situations it is important to point out one fact immediately. In a great deal that is written on social classes it is quite obvious that very definite and precise wishes are often the fathers of very indefinite and hazy thoughts. This is certainly true of most of the bourgeois apologists for capitalism and preachers of cooperation; it is decidedly true of great sections of Pareto's *The Mind and Society*(263), the one bourgeois attempt at a truly scientific sociology, and it is true of many single Marxist analyses. With few exceptions those who deny or gloss over the problems of classes and the class struggle, dynamically have membership-character in groups which would ultimately stand to lose a great deal by the class struggle, did it exist. And in these groups must be reckoned certain individuals who pay lip service to the cause of the workers but whose actual bread is very thickly buttered by the capitalist system and whose fare would be crusts alone under any other. I include here the professional leaders of the British Labour Party

and of the American Federation of Labor. That such individuals deny the class struggle is only explainable on the basis of individual psychological factors, which will be introduced in Part III. On the other hand, those (there are individual exceptions here, of course, too) who most vehemently insist that the class struggle is basic to all contemporary politics, social philosophy, and economic theory would have the most to gain from a successfully conceived and executed proletarian uprising. This fact alone, looked on from the standpoint of a "disinterested" scientist, gives considerable support to the Marxist position. One of our chief conclusions in this work will be that membership-character in a social field is the chief single determiner of the individual's aims and ambitions, his fears and hopes. It has also been shown that threatened destruction of an organized social group increases the degree of organization for group self-protection. Since it is the avowed aim of the Marxist practical program to destroy the capitalists as a class and to further the class struggle, it is scarcely surprising that apologists for the existing order begin by denying antipathies to it, sometimes even denying the existence of classes themselves. Unpleasant thoughts about ourselves, as the Freudians have shown, tend to be pushed into the background. Naturally the comfortable bourgeois denies the "class struggle." Even the Marxists do not expect him to affirm it.

Some of those who insist on class struggle as being ever present fall into errors nearly as serious as do those who constantly deny it. Certain Marxists made laughing-stocks of themselves throughout the later nineteenth century by predicting in the fall of every year the successful conclusion of the class struggle through revolutionary mass action in the following spring. Leon Trotsky after his expulsion from Russia for attempting to further his doctrine of the permanent revolution has made mistaken prediction on mistaken prediction concerning sociological historical events. Certain American radicals saw in the election of Franklin D. Roosevelt and the ensuing "Roosevelt Revolution" a second Kerensky revolution, which regime they predicted might fall before Christmas, 1933. It is, however, quite obvious that the "American Proletarian Revolution" is still far in the offing.[1]

[1] The work of K. Marx has been so variously interpreted that it is hard to say which individuals are to be considered Marxists. On the whole, the official pronouncements of the Communist International have been the most accurate predictions concerning world affairs made by any individuals or organization.

In this vast confusion of rival opinions the "academic" social scientist is inclined to hold his tongue, because he pretends a neutral disinterested attitude and protests that social science is not yet in a position to solve such problems. I cannot refrain from pointing out that such a glossing over of this highly important problem is quite indicative of academic "social science." The position of the scientist in both endowed and state tax-supported institutions depends not only in the long but also in the short run on the existing social order. His membership-character is in the bourgeois region and consequently he usually does not even so much as mention the class struggle. Amongst these individuals Marx, whose opponents even—those of them who were intellectually honest, at least—have always considered a thinker of great import, is the victim of an at times conscious, at times unconscious conspiracy of silence. Most texts of social psychology completely ignore his theories, others mention them only in very distorted fashion. But it is daily becoming more obvious that despite certain methodological limitations of the Marxian system, the time is past when social science may ignore Marx. Let us start our discussion of social classes with emphasis on the following statement: *Marx is undoubtedly the most important social psychologist of modern times on the question of the effect of social class membership-character on the social psychology of the individual, when the class struggle exists.*

2. Social Classes as Fields

What do we mean by the phrase, "when the class struggle exists"? The discerning reader of this work to this point will readily see that our critique of the concept of the social class must hinge on the distinction between field- and class-theoretical thinking.[1] In a rough way, of course, classes always exist just as nations and religions always do. The field theorist would even agree with the Marxians in their assertion that there are always antagonisms between the classes and that there is always a certain amount of class struggle. In other words there are always some strikes and industrial unrest, there are always large segments of the population

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Hence when we say certain Marxists have made this or that error we accept them as Marxists only on their own word. *Cf.* Appendix *A* and Chap. XXII.

[1] The double use of the word class in social class and class-theoretical is clumsy but unavoidable.

which are class conscious. The aims of the capitalists and workers are never completely reconcilable. But to attempt to abstract in the Aristotelian fashion certain universally valid generalities about classes and the class struggle from such a static conception of society is bound to lead to confusion just as it does in the case of nation and church. Marx himself was often misled into this error and certain ideas of many of his followers indeed bear all the earmarks of class-theoretical concept building. The whole confusion regarding the existence of classes, the reality of the class struggle, the presence in individuals of social class consciousness could never have arisen if the debaters had clarified the following field-theoretical premise, before engaging in so much emotionally toned argumentation. *Until more precisely defined, the concept of social class is an Aristotelian abstraction and hence static. Under certain types of field structure, classes, class consciousness, class warfare become so important that their genotypical equivalent determines the course of social change; under other types of field structure, although present, these genotypical equivalents are of little importance.* Marx and the clearest headed of his followers have argued chiefly from the first type of field structure, his opponents from the second. Such differently structured fields are *not* comparable. Hence from the argument neither side is convinced and the chary professor is happy not to be forced to choose sides. It is the author's opinion, to which in this chapter he hopes to bring the reader, that the intranational field often becomes so structured that tension may become conflict-directed between two classes or subregions of the field. In extreme cases civil war or revolution may result. In other words, the national field may become internally structured as the field comprising two nations in times of actual war. The conditions under which this occurs will be more precisely defined as we go on in this chapter. Furthermore, when such field structures arise they are determined by field dynamics alone and not by any innate, inherent, or otherwise class-determined characteristics of the individuals under consideration. There is a commonplace and invalid argument against the possibility of proletarian revolution in America, or England, or Germany, which pretends that the American or English or German spirit finds such ideas abhorrent. It is also said to be against the nature of Americans, Germans, or Englishmen to make revolutions. Despite the fact that strikes are "un-American" we find many Americans engaging in them in 1933–1935. A recent pamphlet(73)

compiled by the Daughters of the American Revolution to be issued to candidates for citizenship thus attempts to overcome the dilemma created by the title of the organization and its present avowed political aims in the following manner:

> You will see from this that the American Revolution was not a revolution in the usual meaning of the word "revolution"; it was a *revolt* from England, a war for independence. A revolution usually means an attempt to tear down or overturn a government or wreck the existing institutions of a country. The American Revolution did none of these things; on the contrary, it was a war fought to PRESERVE the principles of the colonial governments; it was fought to MAINTAIN the liberties of the colonists which George the Third had tried to take away. Americans abhor the kind of revolution which destroys and overturns, which murders, loots, and burns. This was not an attempt to destroy any government; on the contrary, it saved and built up the free governments the American colonists already had. The victory made them free to set up a national government for the whole country on the foundations already laid by the various colonial governments. It transformed the thirteen separate colonies into the United States of America under the Constitution. This is the meaning of the American Revolution. [From D. A. R. Manual for Citizenship, National Society Daughters of the American Revolution, Washington, D. C., 1934, pp. 17–18.]

Scarcely a single issue of the daily newspapers appears without an editorial which attempts solution of such dilemmas in a similar illogical manner. As a strict matter of fact the United States has had a long revolutionary history. Most competent historians are now in agreement that both the War of Independence and the Civil War were revolutionary. By revolution we mean a struggle for political power where the power changes hands from one social class to another.

Thus in the War of Independence the emerging merchants and manufacturers in the Colonies wrested political power from the British landlords. In the Civil War the northern bourgeoisie finally broke the remnants of feudal aristocracy in the old South. Thus even in the United States new revolutions will occur if the field situation becomes structured into a revolutionary situation. The reader is reminded of previous claims that Hitler could never succeed in Germany because the German spirit was liberty loving and democratic.

Conditions for Increase of Class Struggle.—We may say that the class struggle increases under the following field conditions: (1) *When the boundaries separating the social classes become less permeable;* (2) *when the degree of freedom of social locomotion for all classes drops; and* (3) *when the frequency of the barriers in the proletariat and petty bourgeoisie is increased. Under these genotypical conditions, phenotypically the class struggle is enhanced and the social psychology of the members is more and more determined by class membership-character.* In extreme cases there is developed a bipolarity with directed tensional situation between the proletarians and the bourgeoisie, and in such cases the class struggle may be said to be acute. Figure

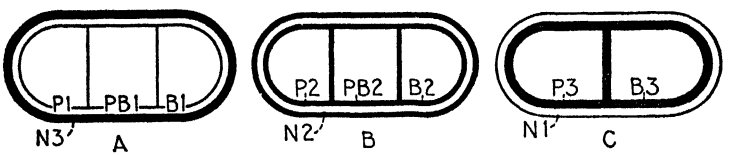


FIG. 31.—Showing changes in potency of class and national membership-character as the class struggle increases. *A*, good times; *B*, economic depression; *C*, revolutionary situation.

31 indicates the topological and non-metricized dynamical changes which occur in the underlying field structure as the class struggle becomes accentuated.[1] In Diagram *A* (Fig. 31) we have a situation in which social change is but little determined by class struggle, *i.e.*, a situation where class membership-character has a low degree of potency. In Diagram *B* the potency of social class membership-character is greater; in Diagram *C* the potency of class membership-character is so enhanced that national membership-character is relatively impotent.

The more general conditions under which such changes occur will be treated next.

3. Dynamics of the Class Struggle

In our treatment of the nation as a social field we have already pointed out that racial minorities and social classes must be ordered to intraregional bounded subregions where there exist differences in degree of freedom of social locomotion, differences in boundary permeability, and differences in the structure, arrangement, and frequency of the barriers. In our discussion of the war situation

[1] For the last time the reader is reminded of the limitations on the index figures assigned.

we gave evidence that such structural differences were not inherent in the subgroups as such, which would be class theory, but that restructurization was always occurring and that in time of war it occurred very rapidly. Under such conditions we saw that the degree of freedom of social locomotion for the whole field was lowered, that both national groups came into a direct conflict situation, and that the permeability of the boundaries separating national subgroups was decidedly increased. The whole process was one whereby the potency of national membership-character was augmented and that of religious and class membership-character diminished. We excepted, of course, those few individuals whose religious and class membership-characters retained greater potency and who consequently became segregated into subgroups with very impermeable boundaries. Such individuals are the conscientious objectors, radical agitators, and slackers. It is important to keep this in mind, for under such a situation the importance of class struggle is minimized. Certain fascist leaders have perceived the great importance of this state of affairs, and, as we shall see, use it to their own advantage in keeping themselves in power. We may begin our more detailed discussion of the class struggle then by supposing the potency of the class struggle at any time in any region to depend on the concrete momentary structure of the national field.

Conditions for Decrease of Class Struggle.—Class struggle diminishes whenever the boundaries separating the social classes are becoming more permeable, so that individuals of the lower classes, particularly the biologically more gifted, may become members of the upper classes. Such a situation exists in times of widespread economic prosperity such as the United States enjoyed between 1923 and 1929. The more able proletarians were rapidly becoming bourgeois in the sense that they were small property owners, the middle bourgeois were becoming capitalists of the order of the big capitalists of half a century ago. The big capitalists were increasing their holdings at an unprecedented rate.[1] Even those individuals who cannot be characterized as crossing the boundary into another class region felt a new social freedom. Real wages rose and the vast system of inflation (credit) placed luxuries like the radio and the automobile into the hands of the "masses." Educational enrollment

[1] The precise statistical indices for such statements may be found in *Recent Social Trends* (278).

in the higher institutions practically doubled and many a young man who started life as a proletarian found himself earning over $5,000 a year before he had reached his thirties. Dynamically one may say that the whole national field was increasing in freedom of social locomotion and that the boundaries separating the class groups were increasing in permeability. The class struggle was diminishing, as seen by the index figures for the decrease both in the number of industrial disputes and in the fall in membership in the American Federation of Labor.[1]

What we call progress may best be described dynamically by ordering the conditions under which it occurs to fields of increasing degrees of freedom of social locomotion. The whole idea that progress was made from the eighteenth century to the opening years of the twentieth was based on the fact that individuals acquired a greater ease of social locomotion, a greater freedom of social movement. As individuals, the environment in which they lived became richer in meaning and fuller of goals which were desirable and which could be acquired with greater ease. Index figures indicative of this trend are the tremendous increase in life expectancy, the phenomenal rise in education, published literature, and popular and artistic entertainment. Individuals strive for a greater freedom in this sense and when they are obtaining it their content increases. Popular eulogists of the time begin prating of progress and the New Era.

The reasons why humans are so constituted that they strive to restructure their environment in the way above indicated can only be answered metaphysically and this we shall not attempt to do. But there are certain cases in nature so strikingly analogous that one may profitably speculate on the underlying dynamics. Wherever point-regions in fields are in movement so that they collide with one another or so that they bombard barriers there is a tendency for the fluidity of the field to increase to its maximum. We have such a situation in gases which when released from containers gradually lose all density. Under these conditions one may speak of greatly increased field fluidity. Particles in motion tend to take the path which leads to the greatest freedom for untrammeled further locomotion. Individual point-regions in the social field do show a similar behavior. One may say dynamically that there is a general tendency for point-regions to move from less fluid to more fluid

[1] *Cf. Labor Fact Books* (178, 179).

field structures. Such a situation is topologically portrayed in Fig. 32.

The various subregions of the national field as well as the field itself show a tendency to increased fluidity, owing to the fact that the individual point-regions are each tending to move as indicated above. Such increases in fluidity are correlated with the general conditions (invention and increase in material production, research and increase in life expectancy, artistic creation, etc.) which we have outlined above as making for progress.

One could speak of perpetual evolutionary and automatic progress if it were not for the fact that under certain conditions serious barriers

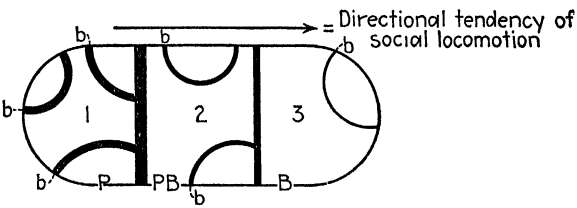


FIG. 32.—Showing field structure and barrier distribution for the social classes in economic good times. *P*, *PB*, *B*, social classes; *b*, *b*, barriers; 1, 2, 3, degrees of freedom of social locomotion.

arise to further progress. There are periods in history where the degree of freedom of social locomotion decreases and where the permeability of the boundaries separating the classes decreases. We are in the midst of such a period. All the trends toward a greater social freedom which were in action between 1923 and 1928 have been reversed. Millionaires are fewer, wages have fallen, inflationary credit has become deflationary debit, and the able youths in all the classes are no longer able to raise themselves above the positions of their birth. Index figures in support of these statements are to be found in all sociological and economic handbooks.[1] And consequently the class struggle is on the increase. Indicative of this of course is the great increase in industrial disputes and the rise in membership in the unions of the American Federation of Labor and in the independent unions. This much phenotypical description should be sufficient to illustrate the dependence of class struggle on the general conditions of progress.

[1] *Cf. Recent Social Trends*(278) and *Labor Fact Books*(178, 179). Since this chapter was written there has been an unquestionable increase in economic prosperity for certain classes in western Europe and United States. *Cf.* Chap. XXII, Sec. 1.

Genotypically the situation is that already given for increase in class struggle, namely, decrease in freedom of social locomotion throughout the national field, decreased permeability of the class outer-barriers and increased frequency of barriers in all classes.

This situation is indicated in Fig. 33.

Contemporary Situation in the United States.—This is the situation today existent in the United States. After five years of severe industrial depression, class membership-character has become more potent, while national and religious membership-character are becoming less potent. Psychologically social class consciousness is decidedly increasing. This is indicated not only by such indices as unemployment and industrial unrest but also by changing attitudes

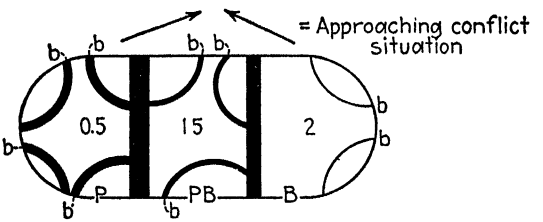


FIG. 33.—Showing field structure and barrier distribution in an economic depression. (*Cf.* text and Fig. 32.)

regarding nationalism and labor,[1] and by trends in literature.[2] The situation was becoming acute in 1932–1933. The New Deal of President Roosevelt was an attempt to return the national situation to the situation of expanding freedom of social locomotions indicated in Fig. 32. Only when we come to Part IV, the political science section, may we analyze this attempt field theoretically. If attempts like the New Deal are unable to recreate the situation of Fig. 32, the field restructurization may continue to the place where class struggle turns into class war and we have the *revolutionary situation* indicated in Fig. 34.

The Revolutionary Situation.—Here the situation between two classes is identical with the war situation already described in Chap. VII. There is strict bipolarity (*i.e.*, instead of many classes we have two); groups which fail to become class conscious are segregated, exactly as conscientious objectors were during the war, and actual bloodshed within the national field may occur. This is a revolutionary situation.

[1] *Cf.* the article by Hart in *Recent Social Trends*(132).

[2] *Cf.* the growth of the so-called proletarian novel.

It lies without the purpose of this book to predict whether or not the present class-struggle situation will turn into a revolutionary situation or revert to a "progress" situation. In the United States all previous economic crises have been resolved by the return of economic good times, *i.e.*, by a resumption of the tendency to increased freedom of social locomotion. The possibility of either a revolutionary situation or a return to good times under capitalism depends, I believe, in the final analysis on economic factors. It lies without the purpose of this book to give economic predictions. Economists[1] are divided into at least two great camps at the present

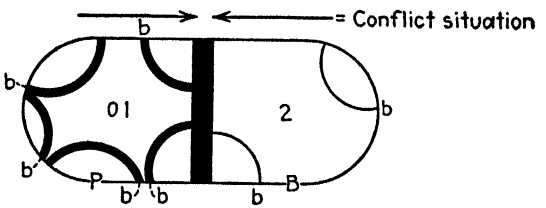


FIG. 34.—Showing field structure and barrier distribution in a revolutionary situation. (*Cf.* text and Figs. 32 and 33.)

time, the orthodox and the Marxist. The orthodox economists suppose in general that capitalist crises may be modified and regulated through economic maneuvers. The Marxist economists suppose that capitalism must inevitably fail owing to its own inherent contradictions. We can only say at the present time that there is nothing in sight which promises a permanent capitalist boom. All we can say with certainty is that unless a boom comes, the situation will drift towards the revolutionary situation of Fig. 34. Our contention, however, is simply that the presence of class struggle as an important social force depends on the dynamics of social field structure.

The only way in which class struggle is diminished without increased social freedom for the individuals of the lower classes is through the increase of permeability of class boundaries and a *correlated enhancement of national membership-character as in war.* This, I believe, was sufficiently discussed in Chap. VII. Here it is only necessary to point out that such restructurization must eventually end in as great, or even greater, setbacks to progress as would a revolution. The present growth of fascist government all over the

[1] *Cf.* Chap. XXII.

world finds its possibility of continuance in imperialist war.[1] Through the war situation the class struggle is diminished at the price of international struggle. *Class struggle increases when the degree of freedom of social locomotion and the permeability of the outer barrier separating the social classes are decreased. It decreases when freedom and boundary permeability are increased, as in economic good times, or when national membership-character is enhanced with decrease in boundary permeability, as in war. It is dynamically impossible to decrease it without such changes in field structure.* We shall next discuss the dynamics of industrial dispute and revolution.

4. Dynamics of Strikes, General Strikes, and Revolutions

Under the circumstances outlined above, the class differences which always exist to some extent become accentuated so that one may speak of a class struggle. Under these circumstances the directive forces activating human behavior become relatively more determined in the social class region where the individual has membership-character and relatively less determined through his membership-character in the nation, the church, and other regions of the social field. Between the extreme situation where the class struggle may be said to have practically no significance in directing field restructurization, as in prosperity or a successfully pursued war, and the other extreme where the only important directive force is the class struggle, as in the revolutionary situation, we have a continual transition through intermediate situations. In this section we shall attempt field-theoretical analysis of certain definite stages of this transition. We shall speak, in order, of the strike, the lockout, which is the employers' equivalent of the strike, the general strike, and finally, revolution and counterrevolution.

The Strike.—In the strike, directed tensions arise between small subregions in the national field. The workers place barriers in the field of the employers; *i.e.*, by ceasing work they prevent the employers from functioning in the "normal" economic fashion. The converse of this is of course the lockout, in which the employers, by closing down, attempt to place barriers in the field of the workers. The social area involved in the local strike, however, is limited, and the employers and strikers still retain membership-character in the national field, and a great deal of their social-psychological

[1] The nature of fascism and its inevitable end in imperialist war will be treated in detail in Chap. XX.

behavior is determined by this national membership-character. Individuals in the social region having membership-character in neither of these groups, the public, remain an important force.

Phenotypically in this situation class consciousness is enhanced, members of the opposite group become the enemy, but they never become the "wartime" enemy as they do in a real revolutionary situation. Both the workers and the employers retain membership-character in the national region. Acts of violence, although they arise, as inevitably they do in conflict situations, are never officially condoned by the leaders of either side. Both sides stress their own national patriotism in their appeal to the public for support. Communists and "red" agitators are looked on occasionally askance by

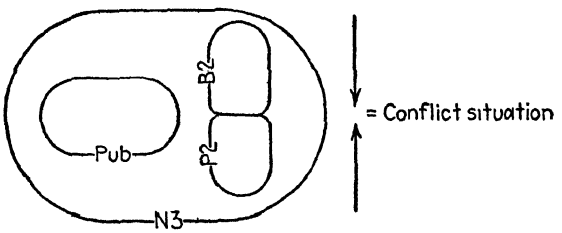


FIG. 35.—Showing the field structure of the local strike. *B*, bourgeoisie (employers); *P*, proletariat (workers); *Pub*, public; *N*, nation.

the workers as well as by the employers. British or American or German labor is simply using the right of collective bargaining in the approved British, American, or German style. The strike situation is resolved either by capitulation on the part of the employers or by the disintegration of the organization of the workers. The workers, under either outcome, according to the newspapers, "go happily back to work."

Genotypically the situation is indicated in Fig. 35.

A small area in the national field becomes structured into a conflict situation. The activities of both employer and worker with regard to the strike situation are determined in this area. The national membership-character, however, retains its deterministic power over most of the individual's activities. For this reason violence on either side is a poor strike policy. When violence occurs it tends to create a wider conflict area, where the unaffected members "take sides" against the contesting side which starts the violence. The strike situation is capable of being resolved also by total restructurization of the field such as occurs in the early days of an economic crisis or in

war. Two postulates of considerable importance may be deduced from this situation. The first: the local strike situation may only serve as a tool for obtaining everyday economic advantages. Its use to attempt to procure political advantages is bound to enlist the sympathies of the public, which remains conditioned by the existing field structure, against it. The second postulate is: strikes may be avoided or terminated unsuccessfully for the workers in any situation where the national membership-character of the workers is enhanced. Naturally local strikes vary in their field structure from place to place, from time to time. Any such characterization as we have given represents abstraction and generalization.

The General Strike.—The general strike represents the situation of the local strike spread over a broader social area. In the general strike not only the workers in a single factory but those in all the factories of an industry, and in the protest and sympathy general strikes those in all industries, go out on strike. The dynamics of the general strike throughout an industry and those of the protest or sympathy general strike must be separately treated. When a general strike in an industry becomes widespread enough through real grievances of the workers, we have a situation which may easily become political and hence transformed into a revolutionary situation. The protest general strike, however, is only an economic tool and one of questionable advantage to the workers at that. The dynamic reasons for this will now be discussed. We shall treat first of the general strike within an industry and related industries and then of the protest or sympathy general strike. There are dynamical reasons why future labor struggles will cover broader social areas, which we must give before we discuss the general strike. They lie in the prevalent tendency toward state or monopolistic capital.

In the early days of the Industrial Revolution (ca. 1750–1850) neither capital nor labor was nationally organized. The period between 1850 and the present has been one of gradual transition from independently owned small enterprises to one of great corporations tending to become monopolies. During this period the democratic form of government has gradually undergone decided changes so that the state has come under the control of these monopolies. This has occurred simultaneously with the increased tendency toward organization of labor. The historical reasons for this change lie without the limits set for this book. Wholesale mechanization of manufacturing processes, plus increased communication and dis-

tributive facilities during this period however, have changed the industrial system from one of independent individualistic action to one of corporate organization. This tendency to a growth in monopoly capitalism is the subject matter of Lenin's *Imperialism*(186). The peculiar American situation has been recently adequately handled in the work of Berle and Means(19). The significance of these changes for the class struggle is the following: Class struggles tend less and less to take the form of the local strike outlined above and more and more the form of the general strike now to be discussed.

In this general strike the conflict situation involves considerably larger social areas than in the local strike. The strike involves not only a small local factory, but all the factories of a large corporation and at times even all the factories in a large industry. Both the number of contestants involved and the proportion of the public affected are larger than in the local strike. The proportion of the public relative to that of the strikers is less. This leads to two consequences. The force of the general strike as an agent of social change is greater, but under existing field structure, where the public retains membership-character in the national field and where through propaganda the public is most influenced by the employers, the chances of its success are less. In the extreme situation, of course, the public finally ceases to exist as a force, all individuals have membership-character determined in the class region alone, and a revolutionary situation ensues. We shall have more to say of this later. While participation in general strikes undoubtedly helps the revolutionary situation to develop at present, general strikes may seldom be successfully terminated for the laborers.

Phenotypically, in the general strike class consciousness is more enhanced than in the local strike, the role of national membership-character in determining individual action is diminished more than in the local strike, *but the public becomes of necessity more interested.* With such large areas involved more barriers are placed against the social locomotions of the public. Their degree of freedom of social locomotion is more diminished than in the local strike. Where a general strike is successfully terminated it may be used for political as well as economic ends.

Genotypically the situation is outlined in Fig. 36.

The areas involved are greater, the class membership-character more potent, the national membership-character less potent than in the local strike situation. The area involved in a conflict situation

however is so much larger than that of the local strike situation that it places greater barriers on the "public."

The protest general strike varies from the general strike situation as outlined above, in that the sympathizers in the protest are not in a real conflict situation with their employers. Consequently, they do not become so determined in their social psychology by class

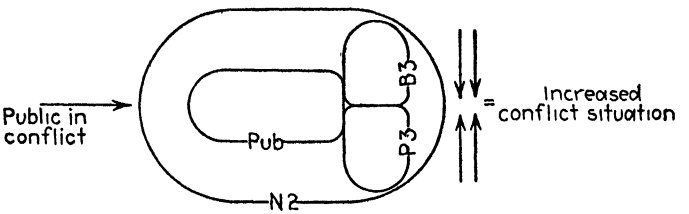


FIG. 36.—Showing the field structure of the general strike. (*Cf.* Fig. 35 and text.)

membership-character and they retain more membership-character with the public and the nation than do the contestants. Their laying down of tools, however, places further barriers against the public and eventually "public opinion" may break the sympathizers' common membership-character with the strikers. This very often weakens the morale of the genuine strikers and the general strike is lost.

A clear-cut phenotypical case of this alignment of forces was given in the San Francisco general strike in 1934. All labor struck in

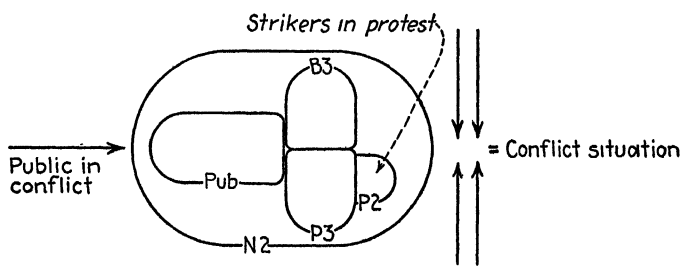


FIG. 37.—Showing the field structure of the *protest* general strike. (*Cf.* Figs. 35 and 36 and text.)

sympathy with the longshoremen. Within a short time, however, the "public," through the employer-controlled press and other agencies of propaganda, was turned against the strike.

From the above considerations Fig. 37, which shows the dynamic situation of the protest general strike, should be understood without further elucidation.

The Revolution.—A revolutionary situation is one in which sufficient members of the workers and employers are engaged in the class struggle to give the field a conflict situation, in which national and religious membership-character have no appreciable influence. It is by no means necessary that every actual individual "takes sides" in such a conflict. Rather the conflict must be concentrated about the large industrial centers and the seats of political control. In the Russian Revolution some 240,000 communists overthrew the government of about 160,000 landholders. The vast majority of the 130,000,000 Russian nationals played only the role of sympathizers

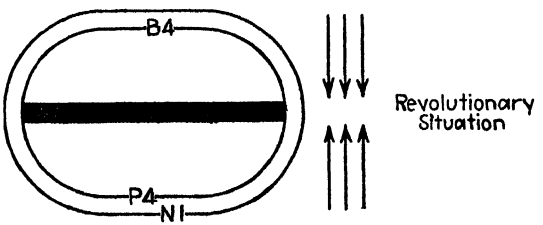


FIG. 38.—Showing field structure of the revolution. (*Cf.* Figs. 35, 36, 37 and text.)

or even onlookers. In other words the revolutionary situation comes into existence only when the "public" as determined by the national social field ceases to exist as a social force.

Phenotypically the class struggle and class consciousness determine all activities of both the worker and the capitalists. The competition situation becomes an open conflict situation and the national field becomes structured into two opposing class fields exactly as in war. The feeling between the groups, the attitudes and stereotypes which arise toward and about the other groups are precisely of the nature of a real war situation. The "terror" and "dehumanization" of opposing sides in the Russian Civil War or the American Civil War was of exactly the same nature as in the World War.

The underlying topological dynamical situation is given in Fig. 38.

The outcome of a revolutionary situation depends on the same factors as the outcome of an international war. The successful party must penetrate the boundaries separating it from the other, and destroy the other party's power to continue the conflict. In order that this may successfully be done, the victorious group must have a strong organization. Under existing structure there must

also be a disorganization in the defeated group. The role of the state is so important in this that we shall not discuss this problem fully until we come to the chapter on the state. That our field-theoretical analysis fits the actual situation is indicated by the following passage from Trotsky's *History of the Russian Revolution.*

The fundamental premise of a revolution is that the existing social structure has become incapable of solving the urgent problems of development of the nation. A revolution becomes possible, however, only in case the society contains a new class capable of taking the lead in solving the problems presented by history. The process of preparing a revolution consists of making the objective problems involved in the contradictions of industry and of classes find their way into the consciousness of living human masses, change this consciousness and create new correlations of human forces.

The ruling classes, as a result of their practically manifested incapacity to get the country out of its blind alley, lose faith in themselves; the old parties fall to pieces; a bitter struggle of groups and cliques prevails; hopes are placed in miracles or miracle workers. All this constitutes one of the political premises of a revolution, a very important although a passive one.

A bitter hostility to the existing order and a readiness to venture upon the most heroic efforts and sacrifices in order to bring the country out upon an upward road—this is the new political consciousness of the revolutionary class, and constitutes the most important active premise of a revolution.

These two fundamental camps, however—the big property holders and the proletariat—do not exhaust the population of a country. Between them lie broad layers of the petty bourgeoisie, showing all the colors of the economic and political rainbow. The discontent of these intermediate layers, their disappointment with the policy of the ruling class, their impatience and indignation, their readiness to support a bold revolutionary initiative on the part of the proletariat, constitute the third political premise of a revolution. It is partly passive—in that it neutralizes the upper strata of the petty bourgeoisie—but partly also active, for it impels the lower strata directly into the struggle side by side with the workers.

That these premises condition each other is obvious. The more decisively and confidently the proletariat acts, the better will it succeed in bringing after it the intermediate layer, the more isolated will be the ruling class, and the more acute its demoralization. And, on the other hand, a demoralization of the rulers will pour water into the mill of the revolutionary class.

The proletariat can become imbued with the confidence necessary for a governmental overthrow only if a clear prospect opens before it, only if it has had an opportunity to test out in action a correlation of forces which is changing to its advantage, only if it feels above it a far-sighted, firm and confident leadership. This brings us to the last premise—by no means the last in importance—of the conquest of power: the revolutionary party as a tightly welded and tempered vanguard of the class. [From L. Trotsky, *History of Russian Revolution*, Simon & Schuster, Inc., New York; 1932, Vol. III, pp. 173–175.]

The role of the leader may be discussed only after we have introduced the psychology of individual behavior. Otherwise Trotsky has given a phenotypical description of the revolutionary situation which well fits our genotypical constructions.

5. Summary

In this chapter we have seen:

1. The confusion regarding the reality of classes and the existence of a class struggle comes from treating classes in terms of Aristotelian or class theory. Thus one of the chief debates of modern sociology, that between the Marxists and their opponents, is undecided. The Marxists argue chiefly from field structure where class membership-character is relatively potent, their opponents from field structure where class membership-character is relatively impotent. When there is strong potency of class membership-character, the analyses of the Marxists are virtually correct.

2. Classes just as nations and religions show different types of behavior under varying field conditions.

3. The class struggle is enhanced when the barriers separating the classes become less permeable, when the lower-class freedom of social locomotion is also decreased, and the potency of class membership-character increases. Such a situation exists in economic depressions. The class struggle is diminished when the boundaries separating classes become more permeable, when the whole field is increasing in fluidity, and national membership-character is more potent. Such a situation exists in economic good times. The class struggle may also be diminished when all regions of the national field become less fluid but where permeability of outer social-class barriers is increased and national membership-character is enhanced. Such a situation exists in international war.

4. Success and general influence of the strike, general strike, and revolution depend on varying types of field structures. The local strike is a conflict within a restricted social area, the general strike within a larger area, and in the revolution enough of the field becomes conflict-structured to allow us to look on the revolution as identical with the war situation.

Bibliographical Note

The literature on Marxian social psychology is tremendous. The Marxian view is most strictly represented, in addition to the works of Marx himself(233, 231, 230, 237), in the works of Engels(96, 97), Lenin(186, 188), and Stalin(314). Opposed to Marx we have Pareto(263), Weber(345), Spengler(311). Hook(152) has a fair chapter on Marxian social psychology. There is a chapter on social psychology of classes by Lippmann in Kafka's(209) *Handbuch der vergleichenden Psychologie*. Briefer articles on the Marxian sociology are those of Elwood(92) and Small(303).

The changes in social psychology with changes in the potency of class membership-character may be had from histories like Trotsky's(336). Some of the best descriptions of changes in social psychology during depression are to be found in the novels of Cantwell(50), Conroy(65), Herbst(142), Rollins(288), Farrell(103). There exist very few adequate social-psychological studies on the class struggle. As indicated in this chapter the average academic social scientist has avoided the issue. There is some material in Young(370), Myerson(254), and Dunlap(87).

CHAPTER X

THE EFFECT OF MINOR GROUP MEMBERSHIP-CHARACTER

1. The Minor Groups

At the present time in most of the countries living under liberal democracy each individual has membership-character in a nation and a class, and has at least been exposed to the membership-character of a religious organization.[1] Membership in society, when it is organized under the liberal democratic structure, of necessity includes membership in a nation and in a class. And in liberal democracies the church is still potent enough to be an important social force. The chief locomotions toward economic and social goals are regulated by the state and class and the chief locomotions toward spiritual goals are regulated by the church. State, class, church, and family, which will be treated in Chap. XII, may be said to be the *major social groupings* under liberal democracy. Many sociologists include the school as a major grouping. We do not, since the school under liberal democracy is determined almost entirely by state policy. As we shall see in the next chapter, education is and has always been under the direct control of church or state.

The "average" or "normal" individual, however, belongs to many more groups than this. He usually belongs to a political party, to social clubs, to school or university alumni organizations, to congeniality groups. He is practically always a member of a family and has various friendships and love affairs. Naturally all individuals do not have membership-character in all these groups. Men range in this respect *from* the "joiner" type who belongs to, let us say, the Methodist Church, its choir, its altar guild; to the Republican party, its financial and campaign committee; to the country club, Elks, Ohio State Alumni Association, Masons, and Eagles; to the Rotary Club and the Community Chest Committee,

[1] Other forms of political organization than liberal democracy will be treated in Part IV (political science section).

to the "timid soul" type who belongs to practically no such minor groups.[1] These various organizations are called minor groups because of their dependence on major group organizations. All these membership-characters plus the membership-character of his family and friendships combine to give the individual what we shall later call his personality. Personality and personality genesis will be the subject matter of the next section of this work. In the present chapter we shall investigate the sociological behavior of such minor groups and the effect of such behavior on the social psychology of the individual.

Field-dynamical Treatment of the Minor Group.—Minor groups are field dynamically to be treated as dependent social groupings within the major social groups. Thus the patriotic societies like the D.A.R. are to be ordered to a minor region in the national social field chiefly in the upper bourgeois area. Under "normal" circumstances the social psychology of the membership of this organization is virtually the same as that of all the members of this region and changes its structure concomitantly with changes in the structure of the larger region. The D.A.R. is made up of bourgeois nationalists. There are also nationalists who are not bourgeois and bourgeois who are not nationalists. But the potency of national and bourgeois membership-character combines to determine the nature of the official publications of the organization, their reactions to preparedness, industrial strife, immigration, etc. Field dynamically the structure is illustrated in Fig. 39.

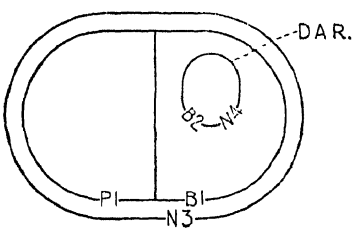


FIG. 39.—Showing the field structure of the minor group as a dependent social group enhancing certain properties of the major group. *P*, *B*, class membership-character; *N*, national membership-character; *D.A.R.*, Daughters of the American Revolution.

The members of the D.A.R. have membership in the national field and the bourgeois field. During increase in class struggle the official position of the D.A.R. is of necessity antilabor, during war extremely patriotic and nationalistic. Thus changes in major-group field structure are mirrored in those of minor groups.

[1] Such differences in the individual personality will be treated in Part III (psychological section).

Similarly membership in a political party or altar guild of a church has less power in determining the individual's social psychology than has his membership in a class region or religious region, and would be treated topologically as we have treated the D.A.R. The change in percentage of Americans voting the Democratic ticket in the last four national elections gives us a good index of this functional interdependence. About 60 per cent of the Americans voted Republican through 1920–1928; since then the number voting Republican has been only about 40 per cent. When the class struggle is obviously on the increase membership-character in the Republican party has much less potency than membership in the social class. Analysis of the changes in political loyalty from 1928 to 1932 by E. S. Robinson(286) has completely confirmed this point. The increase in the Democratic vote in 1932 was drawn almost solely from the petty bourgeoisie and proletariat, *i.e.*, those whose freedom of social locomotion had been relatively most curtailed under the Republican regime. The socialist and communist votes have also increased decidedly during the last few years. Their relative weakness, however, indicates at the present time a relatively greater potency of national membership-character than of class membership-character. Unless, however, there is a return to greater freedom of social locomotion by the 1936 elections there will be a further gain in the parties of the left. From all this it is obvious that these various social-class, national, and religious minor groups are dependent on the larger groups of which they represent limited social areas. "Normally"[1] an adequate analysis of the larger groups within the social field suffices to account in the macroscopic sense for the behavior and determining characteristics of these subgroups.

2. Conditions under Which Minor Groups Become Important Social Forces

Occasionally, on the surface minor groups became important in the sense of directing the forces of social change. We shall next attempt a dynamic analysis of the conditions underlying such occasions. But first let us give an example or two. In the period almost immediately following the World War in the United States there arose a group, the Ku Klux Klan, which began decidedly as a

[1] We use "normally" in quotes because from the standpoint of field theory normal has no real meaning. The popular usage of "normal times" simply means the trend of the preceding few years.

minor group deriving its membership from the Protestant, nationalistic, middle to upper bourgeois segments of the national group. "Normally," as we have said, such a group would be largely determined in its social psychology by the structure of the national field. This group became so important however in determining the behavior of its members that membership-character in the Ku Klux Klan might be said to have been the basic determinant for certain individuals. The acts of individual and group violence of this organization actually broke through barriers imposed by the state and a period of extreme lawlessness was experienced, particularly in the southern states. Actually, however, the national and class regions were very greatly changed from "normal" structure. The return to the field structure of 1914 in 1919 was only apparent. Actually there were considerable class consciousness and class struggle caused by the economic dislocations following the war. The soldier returned after all his sacrifices without much glory and had trouble finding work. There were revolutions all over Europe. Industrial depression threatened in the United States. There was much industrial unrest as mirrored in the strike wave of 1919–1920. The Ku Klux Klan hence mirrored the fear of the bourgeois Protestant region of the possibilities of social unrest. Membership-character in it became simply symbolic of combined potency of class, religious, and national membership-character. Thus the opinions of such minor groups may become the most adequate expression of underlying field structure.

Similarly, the Communist Party in Russia in the year 1918 succeeded in successfully leading the uprising of the proletarian masses and in establishing the reign of the Soviets. Superficially, this group with its small membership and its very local influence would be ordered to a subregion of limited area of the proletarian national field.

The occasional success of such minor groups in becoming one of the chief factors for social change is to be explained on the basis of field dynamics. *When the whole national or social-class or religious organizational field is undergoing rapid restructurization, minor groups which are able to retain their organization may become determining forces for social change.* As is shown, however, in the case of both the Ku Klux Klan and the Russian Communist Party, *these groups do not in themselves cause the change, but since they are organized toward the goals which the whole social field is approaching, may be*

said to "lead" the change. The dynamics of this situation are indicated in Fig. 40, which represents the situation in Russia at the time of the apparent success of the Communist Party in "directing" the revolution. A revolutionary situation characterizes the total field. This situation is approaching that of successful revolution. The Communist Party retains its organization, which is in the direction of the change which is to come. For a period this area seems to direct the flow of social change, and membership-character within this area becomes the most important membership-character for determining the social psychology of its members. Similarly,

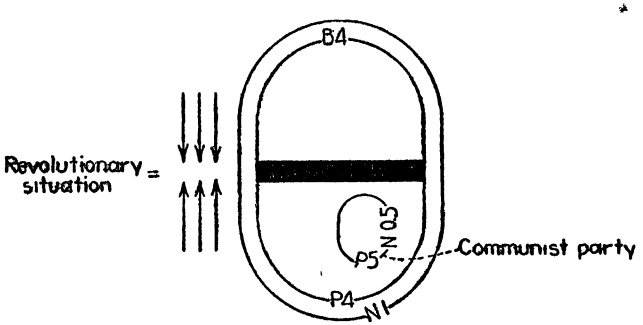


FIG. 40.—Showing the role of the Communist party in the Russian revolution. (*Cf.* text for meaning of abbreviations.)

although their actual historical role is not so important, the Ku Klux Klan seems to organize the return to national, class-structured stability in the stormy period after the end of the World War. The situation was one where the forces of capitalistic bourgeois society were such as to be able to overcome the unrest which was approaching chaos among the lower classes at this time. In both cases minor groups became areas of high potential in the social field changes of the time.[1]

In general then we may say that minor groups and the minor-group membership-character become of great importance only when, *at times of rapid restructurization of the total social field, the goals of the minor group are goals toward which the total field structure is approaching.*

[1] We may deal in detail with leadership only in Chap. XVII. Sometimes groups show the general dynamic characters of the leader, a condition which we shall develop there.

3. Importance of Minor-group Membership-character for Some Individuals

To say that minor groups are less important factors in determining social change is not however to say that membership-character within them is not important for certain problems of individual social psychology. Membership-character in groups like the Elks, the Laborites, the Yale Men, Tammany Hall, the California Association of Fruit Growers, for certain individuals becomes the most important determinant of these individuals' social psychology. Similarly on first analysis an individual's firm or business is very often of the greatest immediate importance for his social psychology. But in a further analysis it may be shown that the structure of the firm itself depends on national, social, and religious field structure and that the individual's attitudes actually derive from the major groups in which he has membership-character. There remain, however, certain individuals who will retain the social-psychological characteristics of previous minor-group membership-character when the major groups undergo field restructurization. These individuals, however, are always limited in number and are only rarely to be reckoned as factors in a sociological analysis, where only macroscopic statistical laws may be found at the present stage of our knowledge. We shall return to such atypical individuals in our section on the social psychology of the individual, where we shall discuss the factors of personality genesis. Since individual social psychology is not yet able to manipulate social forces and consequently make predictions on the basis of measurement, we shall be able to give only the general laws under which certain membership-characters are enhanced so as to become almost sole social-psychological determinants. We shall see that certain individuals arrive at goal satisfaction in minor-group fields only because attainment of such membership-character represents a compensation for tensions arising in the more basic field, which have been frustrated by the imposition of social barriers.

4. Conflict Situation between Minor Groups

When there is competition between two minor groups, occasionally a conflict situation may arise where on a minor scale the dynamical situation corresponds to the war or class-war situations. Although such situations have an important influence on the social psychology of the individuals concerned, they seldom become forces toward real

social change because of the limited social areas involved. This situation represents the inverse of the situation just treated, where only isolated individuals have their social psychology chiefly determined by membership-character in a minor-group region. Here we are dealing with situations under which for a time minor-group membership-character becomes the chief factor in determining the social psychology of the individuals within the group. It differs in turn from the situation where a minor group apparently becomes important as a social force in that the conflict has little to do with the dynamics of total change within the national social field.

Such situations may occur when two rival social clubs, for instance fraternities or sororities on American college campuses, have member-

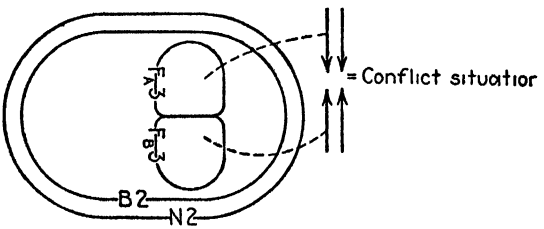


FIG. 41.—Showing the field structure of a minor group conflict situation. (*Cf.* text and Fig. 35.)

ship campaigns at the same time. The groups, which under ordinary circumstances are minor in every respect, may come into an actual conflict situation, with increased potency of minor-group membership-character and decreased freedom of social locomotion for their members. Under these circumstances the social psychology of the individuals within the groups becomes in all essentials determined by minor-group membership-character. In "normal" times membership in a Greek-letter fraternity is the chief controlling factor in the lives of only a few of its members. Under this conflict situation it becomes of chief importance in the lives of all. The situation which dynamically somewhat resembles the local strike is topologically indicated in Fig. 41. Strikes, however, being conflict situations between members of *different* class groups may become important in the class struggle. Such local conflicts between minor groups with the same major-group membership-character usually are unimportant in the sense of creating larger social change. Consequently we may emphasize that *rivalries between clubs, church fora, athletic teams, minor political organizations during an election*

campaign, etc., all may become conflict situations. When they do, the underlying dynamics follow closely those of the war situation with the following important exception. In the war situation either different classes or different nations are involved. In the situation under discussion small social areas of the same nation and class are involved. Hence they have little sociological importance in leading to social change and are usually of short duration.

5. The Social-psychological Significance of Membership-character within the Topological Mean

The reader will remember that in Chap. III we defined the topological mean as the region common to two or more overlapping regions. Consequently the point-regions in the topological mean have membership-character in two or more social regions. These regions may vary decidedly in all their non-metricized dynamic properties. An individual who is an ardent Catholic, a patriotic American, and an upper bourgeois would be ordered to point *A* in Fig. 42, while a Protestant who was an American and a proletarian would be ordered to point *B*.

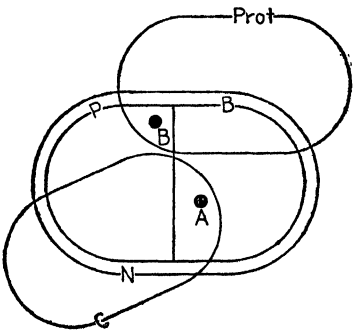


FIG. 42.—Showing the topological mean situation of two individuals *A* and *B*. *P*, *B*, class membership-character; *N*, national membership-character; *Prot.* *C*, church membership-character.

The degree of freedom of social locomotion and the permeability and the distribution of barriers are not indicated in this diagram because these factors *depend on the existing structure* of the total social field. It is easy to see that any number of memberships could be so treated topologically by increasing the number and overlap of the Jordan curves indicative of various group boundaries.[1] When the major groups undergo field restructurization the frequency and the complexity of topological means within the social field undergo great change. This topological device gives us a means of treating mathematically the problem of variation in membership-character. When the total social field is fluid and there is considerable variation in membership-character, one may say there is much overlapping of

[1] This problem could also be treated mathematically by ordering the various membership-characters to dimensions of Riemannian space.

social regions and consequently many areas of topological mean. Such a situation is given in Fig. 43. On the other hand, when, in a conflict situation, the field becomes bipolar, with diminished variation in membership-character, the frequency of overlap and topological mean is diminished. In extreme cases (war situation) there is no overlap possible. We have seen many examples of this in the preceding chapters. In prewar England, pacifism and nationalism were possible in the same individual. During the war, pacifism or nationalism must be given up. In a prerevolutionary situation members of the upper bourgeois group may be "parlor pinks."

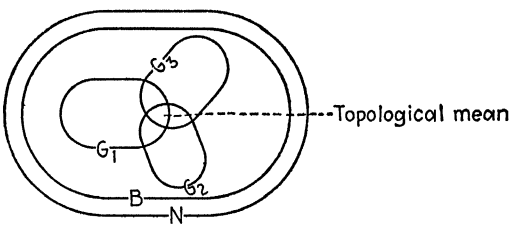


FIG. 43.—Showing the possibility of many overlapping fields in a fluid social field. G_1, G_2, G_3, various minor groups.

When revolution breaks out, as is popularly stated, "sides must be taken," or, dynamically, the topological mean between radical organizations and the upper bourgeois class disappears. The restructurizations of fields so that the topological mean disappears is a problem of great importance for the social psychology of the individual. The basic situation for personality genesis is one of conflict between opposing desires. Individuals in the topological mean of a field tending to bipolarity are in constant personal conflict situations. Here let us give one example of this type of problem, to which we shall return in Part III.

Under liberal democracy the leaders of the working class through their financial and other successes may obtain a certain amount of membership-character in the bourgeois social field. They may even become members of bourgeois social organizations. Topologically the labor leaders hence have membership-character in the topological mean of proletarian and bourgeois areas of the national social field. The reader will recall that in Chap. IX the general tendency for point-regions to move to areas of greater social freedom was demonstrated. Most proletarians who "succeed" lose their membership-character in the proletarian social area. But the

labor leaders by profession must retain theirs. Many of them, however, get such potent membership-character in the bourgeois field that to all practical intents and purposes they may be counted as bourgeois; *i.e.*, the potency of the bourgeois membership-character is a magnitude of first order compared with that of the proletariat membership-character.

When the conditions of the field are such that the class struggle is enhanced, a field bipolarity tends to develop and membership-character must be determined by the structure of either one or the other social area. Before the workers can see that the behavior of the leadership is determined by the bourgeois membership-character, the interests of the workers have been betrayed by the leaders. The workers' leaders become really workers' enemies and pawns in the hands of the capitalists, who are labor's avowed enemies. In general we may say: *When a field approaches bipolarity so that topological means are impossible, individuals will adopt membership-character in the area which has had the greatest potency.* This law has the utmost significance for many practical situations. The avowed leaders of any group whose membership-character in a second group is more potent than that in the group they are trying to lead must betray the interests of this group when a conflict situation develops between the two groups. This law is of very great importance for minor-group membership-character because the potency of membership-character in the minor groups is almost always of second magnitude when compared with that in the major groups. Consequently when the social field is restructured so that the aims of the minor groups are contradictory to those of the major group the minor groups cease to function. Thus during the World War the liberal clubs which were on every American campus were to all intents and purposes abandoned.

6. The Interrelationships between Groups and the Accuracy of Our Abstractions

Actually the social psychology of the individual is the combined product of all the groups in which he has membership-character. The degree of determination varies from a very complex functional interrelationship such as is indicated in Fig. 43 (p. 195) to one where all the aims, actions, and beliefs of the individual are determined by the structure of a given space-region such as in the extreme conflict situation.

When we attempt to deal with national behavior, or religious behavior, or class or minor-group behavior under the conditions where there are many areas of topological mean, it is necessary to make abstractions. The social psychology of the individual and sociological change are determined in fields where many variables are at work. The situation regarding predictability is very similar to the situation in physics in such problems as research on gases, where only macroscopic statistical predictions are possible. There is no technique for controlling (*i.e.*, holding constant) religious and class field structure when we are setting up an analysis of national field structure. This should be quite obvious from the preceding three chapters.

On the other hand, in an actual conflict situation, the social psychology of the individual and the sociological change are much more predictable. To continue the physical analogy they correspond to physical systems of limited degree of freedom, wherein probability analyses may become causality analyses. It is for this reason that we have devoted so much time to analysis of conflict situations in war, class war, and religious war. For here the determination is simple enough to be readily uncovered and hence allow prediction. *We must remember then in making abstractions never to lose track of changes in the situation which we cannot keep under control.*

This will become very important in the chapter which treats of the family. Many sociologists have used the family as the "unit" of society and have attempted to build a whole sociology on the basis of abstracted generalizations concerning family as a static concept. In treating the family and face-to-face groups we must abstract them to a certain extent from the social field in which they are embedded. That the family is immediately the most important group in determination of social psychology of the growing child no one will deny. We must not, however, in treating it, lose sight of the fact that *the family in itself is determined field-theoretically within the national, class, and religious social fields.*

Before we deal with the family we must say something about the historical relationships between social class, state, and church because it is on these that the structure of the contemporary family depends.

7. Summary

1. We have seen that the average individual has membership-character in various minor groups of the major social groups, and

that under certain conditions these minor groups may become sociologically and social-psychologically important.

2. Minor groups become superficially of sociological importance when the total field is assuming a structure which is correlated with the goals of the organized minor group. This problem hangs together with that of leadership and can only be completely handled later.

3. Certain individuals, for individual psychological reasons, are chiefly determined in their social psychology by minor-group membership-character. This also is a problem whose final solution depends on the development of the individual side of a social psychology. We shall return to it later.

4. Under certain conditions minor-group areas of the same national, religious, or social area come into a conflict situation. Under these conditions the social psychology of the individual is largely determined by the minor-group membership-character. These conflicts are of little significance in creating social change because of the common membership-character of the participants in the same major groups.

5. When the total field approaches bipolarity so that the topological means disappear, individuals take membership-character in that group which had the greatest previous potency.

6. For treatment of minor groups of social fields much abstraction is necessary. One must not forget the other variants in the total situation. For this reason the greatest predictive value has been found through the study of conflict situations between nations, churches, and classes.

Bibliographical Note

There are many individual studies on minor groups. Most of these are class theoretical, in that a group is studied in the hope of making generalizations about the group as such. Indicative of this literature are the studies of Mecklin(239) and Thrasher(331).

The importance of the topological mean for problems of individual psychology has been treated by Lewin(207).

Rosenberg(289) in *History of Bolshevism* makes it quite clear that a minor group can serve in a directive capacity only in time of social change. *Cf.* also Lenin(188) and Trotsky(336) on this point.

Young(370), Folsom(107) and Allport(8) give discussions representative of various methodological positions of academic social psychology on the minor group.

CHAPTER XI

HISTORICAL INTERRELATIONSHIPS BETWEEN GROUPS AS ORGANIZED WHOLES

1. The Historical Problem of Social Psychology

Ahistorical and Historical Analysis Contrasted.—So far our analyses of group behavior have been ahistorical rather than historical in their methodology. The attempt has been made to get indices indicative of the strength and direction of social forces at a given moment, and the temporal aspects alone (rather than the historical) have been stressed. The reader will remember that in Chap. III we saw that temporal aspects of scientific problems differ from historical. Thus the physicist is concerned with a manifold containing a time dimension and this time dimension enters into his laws and calculations. Because he can manipulate in experiment he does not require knowledge of the past history of physical systems. Although the social psychologist may not in general make metrical experimental analysis, the non-metricized ahistorical analyses of the sort we have made in the past chapters still give us the scientifically most valid approach to social-psychological problems. Knowledge given by ahistorical analyses is not to be sure complete but it is the type of knowledge to which competent observers most readily give their assent. If an individual who was familiar with the science of physics were to deny that the law of falling bodies adequately describes free fall in the vacuum we would at once consider him ready for the psychopathic ward. But physicists are far from being in complete agreement as to just how the cosmos evolved so that this law of falling bodies may be looked on as an adequate description. There is in other words *only one* ahistorical description and law for freely falling bodies. There are *many* rival historical theories of cosmic evolution. Similarly in social psychology we can hope for rather universal assent to the proposition that in times of economic crisis the class struggle increases, but to prove the exact course of historical events which led to any definite crisis is a task which though often attempted has never been satisfactorily accomplished.

Theories concerned with the ahistorical typical are by their nature subject to experimental investigation by the constructive method. One can show the laws developed from them at any time under the proper observational conditions. Theories of history, on the other hand, must be reconstructed from state documents written by interested persons, or from the reports of individuals who have observed events usually without any particular scientific training, or from statistics which are usually prejudiced and inadequate. Just as there are many theories to explain the history of cosmic evolution in the physical sphere, so there are an even greater number to explain the great historical changes in human society. To speak but briefly of three of the most widely known, those of Marx, Spencer, and Spengler, we find not only no agreement as to basic causes but disagreements amounting to flat contradictions. Thus Spencer believed in further progress for Western civilization through evolutionary adaptation, Spengler believes further progress is impossible, and Marx believed progress probable but only at the cost of long periods approaching chaos and through the active participation of individuals.[1] Past events must be causally related to the present but the uncovering of this sequence, which is the subject matter of scientific history, is no easy task.

Still it is a problem to which many able individuals have given their time and one which will ever fascinate the curious among us. We have so far avoided it, because by means of ahistorical analyses we have increased our understanding and prediction of sociological change. Here we felt we could do something positive, arrive at conclusions to which assent might be gained. The writer, however, as much as the reader, feels such an analysis incomplete and in this brief chapter we shall discuss certain of the historical problems of modern society. The chapter does not attempt to be history or to be founded on historical research. The lines of its development will be of necessity very broad and its statements somewhat dogmatic. Space is not available for much documentation nor is the author a trained historical scientist. We shall hence limit ourselves to a discussion of the gross changes in function and power which the major social institutions have undergone in the last three hundred years, dealing in such broad reference frames that there is little question of the accuracy of our statements. We shall, then, try to see how these changes in function are related to certain basic field-

[1] These theories will be dealt with in Chap. XXII.

theoretical mechanisms. We shall not be concerned with the exact function of Catholicism in France at the time of Louis XIV, but rather with the change in the function of religion between 1630 and 1930. The organization of the state at the time of Frederick William in Prussia will not concern us, but the change in the function of the state during the last hundred years will. Such analyses are, of course, easier to make than the first type. Following a precedent of physics, we might speak of *microhistory* and *macrohistory*. Here we shall deal with gross macrohistory.

2. Changes in the Power and Functions of the Chief Social Institutions in the Last Three Hundred Years

What have been the changes in function and power of the chief social institutions in the last three hundred years? Before we answer this question, we must decide which of the social institutions are worthy of the adjective "chief." As we have outlined them in our work, nation, religious organizations, and social classes have been given most emphasis. The next chapter will be devoted to the family, which we also consider a major social group. Other writers choose other divisions. Sumner and Keller(325) in their monumental book *The Science of Society*, for instance, speak of maintenance institutions to which the economic system, production factors, and government are ordered; religious institutions concerned with spiritual welfare; propagation institutions, concerned with marriage and familial organization; and gratification institutions, the fine arts, the theater and amusements in general. A familiar sociological classification speaks of the church, the state, the family, and the school as the basic social institutions. Historians commonly refer to the church, the state, invention and discovery, and forms of economic organization as basic. Actually much confusion has resulted in these classifications because of the mixture of class-theoretical and field-theoretical concepts and the mixture of phenotypic and genotypic analyses. Thus the church in 1500 and the state in 1900 were genotypically quite similar, while phenotypically they differed greatly. The church of 1900 and the church of 1500 may be said phenotypically to be almost identical but genotypically quite different. We shall also see that the pioneer frontier family, fulfilling as it did the normal functions of state, church, and school as well as family, corresponds to quite a different genotype from the

urban industrialized family. In the following, since there is no settled classification of institutions, we shall talk of the church, the nation and the distribution of classes within nations, the family, the school, and the economic system. From our analysis it will become clear that this last-named social force, the economic system, is the most basic. First let us discuss in a broad way the changes which these have undergone in the last three hundred years, saving the correlations between them for later paragraphs. Since our chief concern is with the social psychology of the industrialized nations of western European culture (including the United States), our considerations will be limited to them.

Although the beginnings of the transition of feudalism to capitalism[1] are to be found as far back as the thirteenth century, the actual transition occurs in the seventeenth and eighteenth centuries. The opening active struggle began with Luther and was completed with Napoleon. Events since then have simply established capitalism, although there are signs that it may sometime be replaced by socialism, just as feudalism was only completely established as a world system at the time of the rise of modern capital. In these years, as capitalism replaced feudalism as the underlying economic system, the church gradually lost its temporal power to the state, nationalism became the ruling political philosophy, the bourgeois (the middle class, the nation's backbone) came to be the controlling political force in national politics, industrial workers rather than agricultural workers more and more became the important social force of the "masses." The family in changing from the feudal-agricultural type to the capital-industrial type underwent important changes. The school arose as an important social institution for the first time. In brief the church and the family and the feudal-agricultural economic organization changed from being the dominating institutions determining the individual social psychology to ones of minor importance. The state (nationalism), the school, and the capitalist-industrial economic organization became of prime importance. Concomitant with these changes one sees the rise of the middle class (the bourgeoisie) to positions of state control and the setting free of labor to become a commodity. Such is the general line of development. Let us now in more detail trace the changes in the different institutions.

[1] The general economic characteristics of feudalism and capitalism were given in Chap. I.

Decline of the Church.—The church at the dawn of the sixteenth century was still *the* church. It is true that during the previous three centuries there had been struggle between the church and the temporal princes over temporal affairs. It is true that the new middle class was already making its power felt in some quarters, that the discovery of the Western hemisphere meant the beginnings of world trade which would eventually upset the power of Rome, that some of the basic discoveries which were to control the future (gunpowder, printing) were already made. But the temporal power of the church was still very great and its spiritual realm unquestioned. There had been minor revolts as that of the Hussites in Bohemia, and Calvin and Luther were already on the scene, but the early sixteenth century was the time of such last powerful popes as Julius II and Leo X. The feudal culture was changing into the Renaissance culture and in the Renaissance the church was still perhaps the greatest integrating social force.

But by the middle of the century events were happening rapidly which meant a final decline in the church as a great social force. It is scarcely necessary to mention them in detail. Luther started the Reformation in 1517, Calvin published the *Institutes of the Christian Religion* shortly thereafter, and the century of religious wars was on. These wars, the religious wars in France, the war for the liberation of Holland, the Thirty Years' War, and the civil war in England were of quite a different nature from the great wars which had preceded them.[1] These previous fights had been battles between strong men (feudal princes) for spoils of domain somewhat like the wars between great modern capitalists for the spoils of railroad or oil control. The vast majority of the population were but little affected by them, and the church as church took little part. But these religious wars, on the surface at least directly concerned with the church, were far more serious struggles. The emerging middle class of northwestern Europe was very active in them and their cost was much more dear. The Thirty Years' War, as is so frequently stated, left Europe, particularly Germany, desolate. And these wars left the church split into two great branches. Furthermore the Roman branch was defeated in that part of western Europe which was destined to play the greatest cultural role in the immediate future. From the dawn of the seventeenth century on, organized religion gradually diminished in its importance as a

[1] The Hundred Years' War, the Wars of the Roses, etc.

social force. Its temporal power began to diminish at the start of the sixteenth century and its spiritual power was on the decline at the beginnings of the seventeenth century. Science in the hands of men like Galileo, Newton, Lavoisier, and finally Darwin robbed it of its claim to a complete and accurate cosmic philosophy. The emancipation of the bourgeois robbed it of its disciplinary power in treating the familial affairs of its members. Political changes sometimes, as in the French Revolution, even outlawed it and there are indications that it may be outlawed even more frequently in the future.[1] After the Religious Wars, the Catholic church lost caste, particularly with that class which was destined to play the great role in the coming centuries.

The religious wars led to the establishment of Protestantism. The freed church changed its cosmic philosophy to fit into the growing nationalism, and the social psychology of the new middle class. By so doing it seemed for a time to retain at least superficially a certain amount of temporal power. But events showed too that this was but for a time. Science was to go on at a stupendous rate and science affected industrial production and hence the whole mode of life. Whenever the dogmas of Protestantism came into conflict with the social forces of growing capitalism, it was the dogmas that changed. The world philosophy of Protestantism finally becomes so emasculated that religion as originally defined scarcely exists any longer. God becomes simply a nebulous spiritual "symbol" for justification of the bourgeois ethical system. He changes in his function and in his desires as the economic system affects the financial supporters of the Protestant Church. Theology changes from the queen of the sciences into a lady-in-waiting for psychology, sociology, and physics. Galileo and Descartes were careful to explain that their natural philosophy was a glorification of the God of Catholicism. But their philosophy, thought through to its logical conclusion, changed the whole nature of this God from that of the great social force controlling the world to a very impotent power indeed. Thus natural science was previously determined in its laws by religion, now religion is determined in its dogmas by natural science. God used to determine the nature of geometry, now geometry determines the nature of God. God, said Sir James Jeans, the noted British astronomer, is a great geometer. Such emasculation of the God of Vengeance must be very disheartening to the religious man of

[1] *Cf.* the church in Russia, Germany, Mexico.

today. Compare the power of the twentieth-century popes with that of Gregory the Great or Julius II or Leo X. Compare the leaders of Protestant theology of today with Calvin and Luther. Religion as a great social force has been on the decline since 1500. Despite the constant attempts of the clergy to create a "great spiritual and religious renaissance," there is no reason to believe that such will come. Perhaps the constructive force of religion will be replaced by communism. But if, as many observers believe, communism is a religion, it is a religion of naturalism and hence retains nothing of the supernaturalism of either Protestantism or Catholicism.

The Rise of the Modern State.—Concomitant with the decline of the church as a social force we find the rise in power of the modern state and the development of imperialism. If one looks at a series of maps of Europe in any historical atlas, for fifty-year periods between 1600–1900, this trend becomes apparent. England grows from a little kingdom to an empire on which "the sun never sets." Scotland was added in 1603, the American colonies during the seventeenth century, Australia and India during the eighteenth, South Africa during the nineteenth. France extends her internal frontiers throughout the seventeenth and eighteenth centuries and begins to be a great colonial power in the nineteenth century. Germany becomes an integrated national state in the period from 1848 to 1870 and in her turn attempts to obtain a vast colonial empire. Finally, to mention only the present great powers, Italy acquires national unity and the beginnings of empire toward the close of the nineteenth century. At the time of writing Mussolini is preparing to annex Ethiopia to his colonial empire.

This unification of national spirit was accomplished only at the cost of a long series of European and colonial wars of increasing destructive force and ever larger fatality.[1] And these wars were quite different in nature from the armed struggles of an earlier period because of two factors. One of these was the increased participation of the middle-class elements as important factors in the actual war and in its direction. The other was the increased mechanization of the wars, the use of machinery and more powerful explosives. Earlier wars were forays between landed proprietors

[1] Sorokin(307) has studied the increased frequency and seriousness of war in a detailed statistical work on which our generalities are based.

and hired forces or loyal retainers. Whole nations were scarcely if ever involved.

Thus, previously wars had lasted for very long periods of time. One remembers the Hundred Years' War, the Thirty Years' War. The nation as a whole was increasingly involved in the series of wars throughout the eighteenth and nineteenth centuries and the numbers of contesting nations on each side gradually increased, until finally in the World War of 1914–1918 practically all nations were affected and most of the individual citizens became combatants either in the actual or in the economic sense. It is well known that in the next world war conscription of the whole economic structure and all the nationals will occur.

Hence the state and nationalism replaced religion as the basic social force. This series of wars may not necessarily be looked upon as the result of nationalism, any more than nationalism may be looked on as a result of the wars. As we saw in Chap. VII the two factors are intimately related. At all events the twentieth century found the national state as the great social historical force.

The rise of nationalism was concomitant with two factors and to understand it these must be taken into consideration. Invention and discovery created the possibility for an ever expanding trade and in essence most of these wars are to be looked on as economically conditioned. The changing economic system created social freedom for the middle class. These individuals were needed for trade, for industry, and finally for statesmanship. A universal church was no longer possible, when the whole nation must fight, and consequently Protestantism and nationalism advanced hand in hand. The rise of nationalism, or perhaps rather its spread, was correlated with the rise of the bourgeoisie. The changing state forms (from absolute monarchy to constitutional parliamentarism) are completely consistent with this rise. The modern German empire or Napoleon's empire was a quite differently feathered bird from the empires of feudal times. And the colonial revolts which have characterized British history have been revolts of the middle class primarily demanding home rights. In summary then, with the decline of the church, we find rise of nationalism, the state's changing toward parliamentarism, and the rise of the bourgeoisie.

Changes in the Family.—The family shows changes just as striking as those shown by religion and the state. The feudal family was patriarchal, primarily self-sustaining, agricultural, and decidedly

monogamous, and women were chattel properties without political rights. The autarchy of the father has been decidedly lessened, the industrial age has made the family more and more dependent on economic factors in modern times. The Catholic church believed the marriage vow indissoluble. Protestantism condones divorce. Divorce is, in fact, on the continual increase. Women have started at least their emancipation from the rigid standards of feudal Europe. We speak of course in generalities, for increasing familial freedom is conditioned largely by mode of production and class membership-character as the next chapter will indicate.

Growth of Education.—In 1600 the educational system consisted of a handful of universities, which in reality were chiefly theological seminaries, and a few church schools for very select individuals. The subjects taught were theological; library and laboratory facilities were practically nonexistent. Gradually we see the establishment of free and compulsory education at least for the lower levels of learning. The establishment of universities for a small percentage of all classes and for a fairly large percentage of the bourgeoisie has occurred only in the last century. The subject matter of the university instruction was increasingly enlarged, laboratories and libraries became increasingly frequent and adequate. With this the school becomes an ever increasing social force in establishing the social psychology of the individuals. By the middle of the nineteenth century one might place it on an even ranking with the church. But here again the social philosophy taught in the schools was largely a product of the changes in religion as an institution and more particularly of the change in importance of the state. The civics courses as popularly presented in the American public schools are all the evidence which is really needed for this. Religious freedom is stressed almost as much as patriotic jingoism and the "chosen-people" myth.

Change from Feudalism to Capitalism.—Perhaps the most basic change through this period and certainly the most basic determinant of all the other changes has been the change in the economic system throughout these three hundred years. From 1600 feudalism, a system in which forces of production were in the hands of a few overlords, in which production (mainly for use) followed the whims of the lords on the basis of barter, and in which the workers were bound to the overlords' wishes, has gradually changed into capitalism, a system in which the forces of production are owned by the

rich bourgeois, in which production follows, in accordance with classic economics, the motives of the market, and in which labor power itself becomes a market commodity.[1] This change was brought about by a series of factors, the most important of which was the discovery of the science of mechanics following closely on the discovery of unlimited virgin fields for exploitation, and the discovery of means of transport and communication with these. Gradually industry replaced agriculture as the chief source of profitable commerce. In order to trade the new products the market was necessary, in order to manufacture them the labor market was necessary, and in order to manage their output and utilize their products the bourgeoisie was necessary. Consequently trade led to conflict and conflict led to the growth of nationalism, with the increased need of an independent church and the increased need of educative facilities for the growing bourgeoisie, in order that new discoveries might be made, new processes perfected, more profits accumulated. The machine and technology gradually emerge from this process as the great determinants of modern history. The owners of the machines determined historical change almost entirely until that time when the manipulators of the machines began to realize their power. Contemporary history is obviously becoming more and more a process in which the machine owners are becoming limited in their powers by the failure of the operations of the market to distribute their products and by the increasing class consciousness of the workers under such a disability. But for nearly three centuries the owners of the machines were the makers of history unless we look on the machines themselves, or Galileo and Newton behind these machines, as being the most important historical forces. But Galileo and Newton in their turn may only be understood as the products of the social field structure of their times. Thus A. N. Whitehead over-simplifies the matter when he closes his *Science and the Modern World*(359) with the following words:

> The tale is the epic of an episode in the manifestation of reason. It tells how a particular direction of reason emerges in a race by the long preparation of antecedent epochs, how after its birth its subject-matter gradually unfolds itself, how it attains its triumphs, how its influence moulds the very springs of action of mankind, and finally how at its moment of supreme success its limitations disclose themselves and

[1] Actually the beginnings of this change were much earlier. From 1600 the change is most marked however.

call for a renewed exercise of the creative imagination. The moral of the tale is the power of reason, its decisive influence on the life of humanity. The great conquerors, from Alexander to Caesar, and from Caesar to Napoleon, influenced profoundly the lives of subsequent generations. But the total effect of this influence shrinks to insignificance, if compared to the entire transformation of human habits and human mentality produced by the long line of men of thought from Thales to the present day, men individually powerless, but ultimately the rulers of the world. [From A. N. Whitehead, *Science and the Modern World*, The Macmillan Company, New York, 1926, pp. 299–300.]

It would be more accurate to say that the objective situation led to the discoveries of Galileo and Newton and their successors. In brief, the church changed, the family changed, education and the modern state developed as technique of production itself changed an agricultural feudal society into an industrial capitalistic one. Concomitant with this were of course major changes in the social psychology of the individual.

With this change there was a reorientation of the orders of society. In 1600 we have a handful of church prelates with their monasteries, and feudal aristocrats with their courts and camp followers. The rest of the population was made up chiefly of the masses of agricultural laborers. The beginnings of the bourgeois were present in the medieval traders and some of the artisans. In the twentieth century the remnants of the feudal aristocracy are of relatively little importance. But about 3 per cent of what was previously the middle class now are the capitalists. All the workers, agricultural and industrial, are remnants of the old masses. Some 20 per cent of the present-day population make up the so-called new middle class. These individuals, however, are powerless in the face of the new masters, the capitalists, and the new masses, the modern industrial workers. So far we have given a cinematographic description of the chief changes in the history of social institutions for the last three hundred years. The basic force underlying these changes has been seen to be economic. Strachey(319) has outlined this chief change very eloquently and given reasons why, in so far as we accept any philosophy of history, we must accept this one. We can do no better than quote from him in ending this discussion.

Men become fully conscious of what they have done only some centuries after they have done it. And only lately has it been realized that what Western man accomplished by some four hundred years of struggle,

between the fifteenth and the nineteenth centuries, was the establishment of the free market.

So natural to us is the existence of the market that we find it hard to grasp the fact that there was a time, not so very long ago, when there was no market. We are familiar with the idea of feudalism. Yet we often fail to realize the essential fact about feudalism, the fact that you did not in the middle ages (and do not to-day wherever feudalism still exists) live by buying and selling. Again we learn from our historians of the struggle for "freedom." British historians especially regard modern history as nothing less than the story of some great liberation. They do not, however, tell us for what purpose this freedom was won. And yet there is no doubt about it. The freedom for which Henry Tudor broke with Rome, for which Hampden and Cromwell fought, for which Halifax and Churchill betrayed James, which Locke began to make conscious, for the sake of which Jefferson and Washington defeated George III, and for which Grey reformed, was the freedom to buy and to sell. The whole long struggle for Liberty, about which the historians tell us everything except what it accomplished, was a struggle for that freedom of contract, which is the legal expression of the free market.

Undoubtedly, that struggle began long before men were fully conscious that the free market was to be the result of their efforts. Thomas Cromwell did not anticipate Adam Smith. Men do battle for immediate ends. Gradually, however, the consciousness of the object of their struggle dawned upon those who took part in it. If the object of Thomas Cromwell was simply the aggrandisement of his friends, and the destruction of monopoly but a means to that end, his great great nephew Oliver had already begun to know better. And by the end of the eighteenth century Jefferson and Paine knew very well for what they fought.

It is at length beginning to be admitted that this struggle and nothing else is what European history since the Reformation has been about. Not that the contest was confined to the economic field. On the contrary, it spread to every aspect of human consciousness. For its object was nothing less than to create a complete new basis for human life. Consequently it had first of all to supplant the extant form of society, on the basis of which men had hitherto existed. We call that previous social system feudalism. Now feudalism was an elaborate system of human relations, which had been in existence for several centuries and possessed a highly developed and elaborate equipment of political, aesthetic and religious institutions and ideas. During long centuries men had learnt just how it was necessary to live (that is, to act, to feel and to think) under the conditions of those times. And these conditions were those of communities in which agricultural production was by far the most important economic activity; in which the possibilities of

transport, even for a few miles, were so limited that the importance which the exchange of commodities (the market) could possibly have was very small; in which the methods of production, and of such distribution as there was, were simple handicraft; in which, above all, these methods changed very little.

And yet the methods of production did change. The scholars now inform us that as early as the twelfth century the germs of change can be detected. In fact, of course, feudalism was never completely and perfectly established in practice. Long before any of the numerous systems of society under which man has lived have been fully established, the signs that they will some day themselves be superseded become visible. As the slow centuries of the middle ages wore on, the cultivation of the soil became more rational, methods of transport improved, roads grew a little more passable, ships a little more seaworthy. At length (some time about 1400) the possibility, the actual physical possibility, of the exchange of goods on the great scale, the possibility of the market, became considerable. But that did not mean that the modern free market was forthwith established. On the contrary, deep-rooted and formidable institutions, fixed ideas, religious, political and social, all perforce founded on the impossibility of the market, stood flatly in the way. Accordingly they had to be, and were, dynamited out of the way. It took, however, some four centuries to do it. The stormy life of Europe in these latter centuries has been the history of the process. For once it had started, the pace of change quickened decade by decade. No sooner had human institutions been adapted so as to admit of the possibility of a market of a given economic importance, itself made possible by previous technical developments, than these technical developments themselves made another and far longer stride forward, so that almost before they were properly established each new set of human institutions became out of date. For history in an epoch of rapid technical and economic change is no smoothly flowing river.

In modern Europe it has been rather a river of blood. The sword and the sword alone has sufficed to cut through and break up the old social forms and make room for the new. Swords, however, need arms to wield them. The free market did not establish itself. It needed human instruments to fight for it. And these instruments could only be the new men whose lives had come to depend on the existence of the young market. These new men were the merchants, the "middle" men. For why should feudal lord, feudal serf, or established urban guildsman, fight for the market? These new men, however—middlemen—half way between lord and serf, who slowly grew in number and in power with the insidiously growing market, they could fight for the market, they could and they did so fight even though at the beginning they did not

know for what they fought. They fought it seemed to them merely for the right to live. But their right to live had become dependent upon the maintenance and the growth of the market. Thus when they fought for themselves they could not help fighting for the market. Small wonder then that they grappled desperately with every interest which their instincts told them was hostile to the principle of free exchange. [Pp. 11–14.]

It has been said that all distinctions in nature and society are unstable and to a certain extent arbitrary. Just as in the heyday of feudalism there was a good deal of buying and selling, so at the height of the era of the free market, there were many fixed human relationships: moreover (and this will form a major theme of these pages), long before the last feudal stronghold was destroyed the first of the new enemies of the market—the new monopolists—had arisen. For no type of social order has as yet completely monopolized human relationships.

This undoubted fact has led some historians to deny the existence of all these historical categories—feudalism, capitalism, the free market, the middle class, the aristocracy, the workers—of which we have been speaking. There are really no such things, we are now told. There is just "history," a vast undifferentiated, homogeneous mass of facts which cannot possibly be analysed or classified in any way. Thus it is impossible to come to any conclusion on any subject at all. Our reply must be that, in spite of the undeniable fact that historical categories are never absolute, it should be possible for even an historian to detect a difference between the England of 1840 and the Rome of 1300, between the outlook upon the world of Saint Thomas Aquinas and that of Mr. Jeremy Bentham. It is quite true that the world of 1840 still contained conditions which would have been familiar to Saint Thomas, and that the world of 1300 nurtured shoots that Mr. Bentham would have regarded as hopeful. Is it necessary, however, to deduce on that account that there was no such thing as feudalism and that there is no such thing as capitalism?

A more serious question remains. Can we accept the general view of the course of history which is adopted in these pages; can we accept the hypothesis of this chapter as to how and why feudalism turned into capitalism, into something, that is, very much like its own opposite? The first answer to that question is that the discovery of historical truth is a more complicated matter than had been supposed. "This then is my truth," remarked Zarathustra. "Now, tell me yours." Historical truth for, say, the working class of Great Britain, may be something rather different from historical truth for the professional historians. We have been taught by the physicists that the position of the observer is an integral factor in the characteristics of the thing observed. The

perspective of history is long. But the angle of vision is very important. This, however, can be said confidently. The view of history here adopted is a hypothesis which gives sense and coherence to the human past. If we reject it, then we must retire with the agnostic historians to bury our heads in enormous heaps of meticulously collected and quite unrelated facts; or, as they themselves are beginning to recommend, give up as vain the whole quest for the truth and return with the aesthetic biographers to the art of story-telling. [From John Strachey, *The Coming Struggle for Power*, Covici-Friede, Inc., New York, 1933, pp. 30–31.]

3. Field-theoretical Analysis of These Changes

Any science must begin by postulating certain forces or tendencies which are commonly observed and to which universal assent may be obtained. Increasingly exact analysis tends to reduce these forces to a lesser number and to "explain" even this lesser number on the basis of properties even less complex. Hence, the force of gravitation, for centuries considered a basic property of nature, may now be deduced on the basis of the structure of the time-space manifold. Heat, which until the middle of the nineteenth century was considered an imponderable substance exhibiting the properties of a force, is now reduced to the principles of mechanics. Psychology begins with the postulate that men seek goals, sometimes obtaining them, sometimes failing to do so.[1] The growth of the personality is realized by practically all modern theorists to be due to the blockages which prevent the attainment of goals. The question "why" men seek ends belongs to metaphysics rather than science, as we pointed out in Chap. II. There we saw that attempts to answer the question "why?" on the basis of class theory lead inevitably to vitalism, animism, or supposition of a *deus ex machina*, as in the work of McDougall and others. We possess, however, considerable information on "how" men react to blockages and consequently the conditions under which goals and ends are obtained. We start with the postulate that human organisms perceive certain objects or social situations or states of mind as "desirable" and move toward these ends in the social field.

Invention and Revolution.—It is generally admitted that humans move toward goals which are self-preservative and race-preserva-

[1] The more precise analysis of individual psychological behavior will be given in Part III. Some of the ideas of Part III are introduced here in an approximate form to enable us to deal with problems of historical change field-theoretically.

tive.[1] The problem viewed biologically is settled here. The race goes on if enough individuals stay alive to mate and rear offspring to that period when they can look after themselves. But the problem is not purely a biological one, it is a psychobiological one. There is a second general tendency which we find on a psychological level. That is the tendency to develop conceptual solutions to problems where the goal is not attained on the physiological level. That children begin to "act like humans" is caused by the thwarting of their hunger and sexual instincts in the familial situations. The exact conditions for this thwarting are to be given later. In extreme cases the reaction to such thwartings leads to the development of genius or insanity. For most individuals this thwarting leads simply to the ability to think rather hazily over a few ideas or to the development of a few tendencies towards peculiar reaction forms. At all events, men reach to higher levels through being frustrated from obtaining basic biological goals. Certain of these psychological reaction forms (thoughts, ideas, phantasies) remain without effect on the world's history. They are dreams and delusions which get nowhere. But others, and these are the important ones for history, become the sources of invention and of "progress." They work back on physical reality so to speak and transform the world. Through them the actual biological goals are made easier to reach for a greater number of people. Population may increase, life expectancy may increase, and general happiness may increase, and they do so when individual phantasies become applied. Field-theoretically, some individual is blocked toward some goal. He invents a solution to this blockage which may change the whole structure of the social field and create a greater freedom of social movement for many people. What the form of his solution to his psychological blockage will be is determined by many factors. Among these, of course, is the existing structure of the social field. Particularly important in determining this, as we have seen above, is the prevalent economic system. Phantasy creates invention only out of existing objective conditions. Men make their history but not out of free air. The process whereby invention occurs has another and a darker aspect. The vast majority of individuals at all times are not ready to accept the new inventions. Scarcely any advance in science has been accepted immediately on its own intrinsic merits. In turn the

[1] Even such generalized mechanisms are not acceptable to a psychological field theory, as we shall see in Part III.

seventeenth-century mechanics, the eighteenth-century dynamics, and the nineteenth-century biology were first looked on as works of the devil. Such unreadiness to accept potential progress is not limited to mechanical invention but makes itself felt in sociology and politics. Most individuals who are not particularly blocked themselves in their own psychological fields are inclined to let things ride. This failure of society as a whole to readjust to its own potentialities of progress is called cultural lag. The inventions are sufficient to bring on Utopia for all, but the lag in the social and economic mores and in law and political science prevents this. Once a basic field reorganization has occurred progress may become very rapid. Thus in our times we have seen semifeudal and backward Russia become a modern industrial state almost overnight, through the socialist revolution. *Cultural lag is the failure to apply the fruits of science to the production of human happiness when they are made available by scientists. Field-theoretically, invention arises when certain gifted individuals find blockages in their individual psychological fields. Revolution occurs when whole classes meet barriers to social freedom.*[1] Hence, "cultural lag" may be interpreted to mean the tendency of the "masses" to react more slowly to blockages in general and only to more serious blockages than are reacted to by certain individuals. The lag at the time of the Bourgeois Revolution was to the discoveries of physical science. The lag at the present time is to the discoveries of social science.

The conditions of invention and revolution are similar. One might call invention a revolution in the psychological field of the individual. Similarly revolution becomes an invention of the whole social field. Both may be understood as field restructurization. Revolution often follows invention because under certain field conditions the acceptance of invention is impossible to certain segments of the social field. The feudal aristocracy in 1500 and the bourgeoisie in 1930 were both unable to apply the inventions of physics on the one hand and modern sociology on the other.

With these definitions in mind what order can we bring into our cinematographic description of the historical events of the past three hundred years? We saw (1) the church decline in power and influence and Protestantism arise, (2) the modern state created on a nationalistic basis, (3) the family changed from a primarily rural patriarchal status to one primarily urban-industrial, (4) the school

[1] *Cf.* Chap. IX.

grown from an appendage of the church to an appendage of the state, so that the subject matter taught and the class of students were completely changed, (5) feudalism with its aristocratic government, its arbitrary production system, and its serf labor changed into capitalism with its private ownership, its commodity market, and its labor markets.

A revolution was necessary that capitalism might arise and prosper. Society had to make an invention. And this was the invention of the capitalist system. Before this many individuals made private revolutions in their own psychological fields, *i.e.*, inventions. But they in their turn were limited in their potentialities by the existing structure of the social field. It is only thus that we can explain Galileo's and Isaac Newton's scientific genius and theological inanities. The revolution required: First, a breakup of the feudal estates so that the land might be more profitably cultivated with the aid of the new agricultural and mining machinery. Secondly, the freeing of the serfs so that industrialism might arise. Thirdly, the development of the national state to protect existing markets and under imperialism to gain new ones. Fourthly, the building of parliamentary democracies so that the rising bourgeoisie should have a voice in the government. What necessitated these changes? Invention and science. One might suppose that the New World was discovered because Columbus failed to adjust on a purely biological level. Mechanics arose because Galileo, Huygens, and Newton were impatient with some familial or other early blockage. Discovery of large amounts of coal in England made Watts' observation of the family tea kettle on one of his despondent afternoons the true source of England's nineteenth-century prosperity and her ruined midland countryside. The geniuses of the century of discovery (the seventeenth) made the way for the century of invention (the eighteenth).

These inventions and discoveries are hailed as the real sign of modern genius. Were they always? Decidedly no. The history of Galileo and the Inquisition are well known. Less known is the opposition to the applications of his genius throughout the last three centuries. Finally to apply them freely in the nineteenth century the bourgeois revolution was necessary. "The basic motive force," says Strachey, "in the history of the past three hundred years has been the struggle for the market." This struggle was long and bloody and it is not finally completed today.

How did this struggle arise? The feudal aristocracy and with it the church through cultural lag fought the breaking up of the lands of the feudal estate and the church. The church fought the new ideas of science. The nobles fought the bourgeois politicians to keep them out of the government, and the landlords fought the serfs to keep them from going to town. But this was all of no final avail. The revolution triumphed in the rise of Protestantism, the rise of parliamentary government, the rise of the school, through the restructurization of the social field so that industrial urban organization replaced feudal rural organization. The bourgeois emerged as the new rulers of the world and the whole moral and social code was changed. In brief, the last three hundred years are mirrored by the change in structure of the total social field from feudalism to capitalism.

4. Summary

In this chapter we have seen:

1. The historical aspects of social sciences, like all historical sciences, are not so precise as the ahistorical elements. This is because the ahistorical sciences furnish us laws which allow scientific verification through the field-theoretical method.

2. The chief historical movements of the last three hundred years were seen to be the following: a decline in the importance of the church and a rise in the importance of the national state, combined with a decline in the influence of the family and an increase in the influence of the school. These events marked the transition from feudalism to capitalism.

3. We attempted to correlate these changes by defining revolution and invention in terms of field theory. When this is done the chief social movements have definite relationships.

Bibliographical Note

The chief historical changes in social institutions outlined in this chapter are given in all modern European histories from the simple school texts like Robinson(287) to many-volumed works like *The Cambridge Modern History*(2). This latter is excellent for facts but lacks any integrating principles. Particularly concerned with the rise of capitalism in smaller compass is Hobson's *The Evolution of Modern Capitalism*(150).

Most orthodox historians have little to say concerning the integrating principles in history. Important works which attempt philosophical integration are those of Weber(345), Spengler(311), Toynbee(334). The present chapter owes much to Strachey(319).

CHAPTER XII

THE EFFECT OF FAMILY AND PRIMARY GROUP MEMBERSHIP-CHARACTER

1. The Primary Group Exists Only after Multifold Abstraction

Primary Groups as the Chief Subject of Study by Earlier Sociologists.—We come finally to those groups which have been most discussed by social psychologists, the primary or face-to-face groups. These groups—the family, gangs, congeniality groups, individuals in love or in close friendship—most frequently also show the characteristics of in-groups.[1] The older psychologists reasoned as follows: to understand society as a whole it must first be analyzed into its parts, and this necessitates starting with the study of the individual, to see how he reacts to other individuals first singly and then in the simplest groups such as the family and other primary groups. If the cell is the simplest biological unit of an organism, then it is quite obvious that we must start with the individual as the simplest psychological unit which exists, and that the family becomes the most natural and simple social-psychological unit. It was such considerations in the nineteenth century which led LePlay(194) to develop what was perhaps the most important method of analysis in the scientific sociology of the nineteenth century. After all, sociologists at this time believed themselves to be following the best scientific tradition. Was not chemistry being understood through the study of the various forms of combination of the chemical elements, and physics through the forms of movement of material particles, and was not biology becoming a science through the momentous discoveries of plant cell by Schleiden and animal cell

[1] *Cf.* Chap. VI. The reader will remember that the primary group is characterized by face-to-face association and lacks codified regulation, *i.e.*, is not institutionalized in comparison with the secondary group. The distinction is that of Cooley(66). The in-groups have a stronger we-feeling than the out-groups. The distinction is that of Sumner(324).

by Schwann? In the mother of all the sciences, mathematics, it seemed clearly indicated that algebra and geometry were built up of parts. One built up a line by moving a point, a plane by moving a line, and a solid by moving a plane and that was all there was to it. It was hence quite natural for the sociologists and social psychologists as the exponents of the youngest science to attempt to follow the same procedure. And they had, they believed, plenty of justification from more closely related sciences; physiology was the science of individual processes such as elimination, anabolism-catabolism, and reproduction, and psychology was the science of the relationships between the elements of feeling, willing, and knowing. Thus throughout the nineteenth century the philosophy of biology most widely accepted was that of atomistic-mechanism.

Social psychology hence became in the hands of most writers and investigators limited to the psychological mechanisms involved when two or more people react to each other as stimuli. Thus we have seen in Chap. V the type of investigation undertaken by the earlier social psychologists. A brief review of our findings there, after our investigations of major social groups, will help us understand much of the existent social-psychological writing on primary groups. When people reacted to each other they might for instance *imitate* one another, they might change another's behavior through *suggestion*, they might arouse one another's *sympathy*, or the reactions in social situations might be special *habits* or certain *instincts*, such as an instinct of gregariousness when people came together for mutual satisfaction or an instinct of pugnacity for mutual destruction. We saw how, of earlier writers, Tarde developed a whole "social psychology" on the basis of imitation, how LeBon's famous sociology of mob behavior had suggestion for its basis, and how more recently Dewey has attempted to consider social psychology as the struggle between social habit and intelligence. The earlier workers thought that there were definite mechanisms in human interaction which probably had definite discoverable laws and that out of these one could understand the workings of society as a group of atoms combining according to these mechanisms.

Early within the present century certain psychologists and sociologists interested in methodology saw that concepts like imitation, suggestion, sympathy, and the whole host of instincts were at the best descriptions and not explanations at all. As explanations they are simple tautologies. Men gather in groups. Why? Because men

have an instinct for gathering in groups. This is simply equivalent to saying that men gather in groups because men gather in groups.

Discontented with this state of affairs within their science, certain social psychologists believed that the problem could best be tackled by adopting a behavioristic standpoint. Such a view was undoubtedly a healthy one. Many of the tautological "explanations" were seen as impossible, concepts became more precisely defined, and a great deal was gained methodologically. For instance, the behaviorists insisted that the conditions under which social behavior occurred should be strictly controlled and that social-psychological statements should cover only observations for which scientific statements, *i.e.*, statements to which universal assent could be obtained, might be made. They became interested in the precise physiological and the demonstrable psychological changes involved in social reaction. *But their conception of the basic postulates of method remained unchanged. Back of all these attempts remained the belief that there were mechanics concerning social relationships between single individuals, which if once understood, would be the building stones for the structure of social psychology.* They believed that the whole could be explained by summation of the parts, so that the behavior of groups of two could be explained on the basis of individual psychology and that larger groups could be explained from combinations of smaller groups. In other words, that the simplest conditions (psychological and physiological and social-psychological) for conflict between two individuals being found, the conditions for sociological conflict (war, industrial strife, etc.) could be given. This whole viewpoint was atomistic-mechanistic rather than field-theoretical. Although, in individual hands, the mechanisms behind various situations are differently defined, the underlying philosophy remains the same. Only recently has it been questioned for any of the sciences, and scarcely ever for sociology.

It is interesting to point out further that all science including mathematics had given up the strict atomistic picture of the universe just in the period where the atomistic-mechanistic view was first being established in sociology. Thus Riemannian geometry established a method which began with n-dimensional manifolds and proceeded to simple geometry, the modern theories of the gravitational and electromagnetic fields followed a similar procedure, the organismic viewpoint in general biology and the Gestalt viewpoint in psychology start with the whole rather than the part.

Relation of Primary Groups to Larger Groupings.—From the discussions of the last few chapters it should be obvious that two or more individuals come into social contact with each other either *as members of the same church, nation, class, and subgroups, or with common membership in only some of these or in none of these.* We shall not spend much more time and space demonstrating facts which should now be obvious. *The existing structure of the total social field and the membership-characters of the individuals involved determine their reactions.* In times of prosperity and industrial peace, the manager of an industrial plant has a friendly "Hello, Joe" for his workman; in times of active stages of the class war it is more often tear gas or sometimes even machine guns. Two individuals are seated at neighboring tables in a Paris café; they are both attempting to get the attention of the waiter. The waiter attends to one and neglects the other. The resulting behavior will depend on the class and nationality in which the individuals have membership-character; bourgeois Americans will react very differently from lower-class Frenchmen in the same situation. Even if mechanisms like sympathy, suggestion, imitation, etc., are useful descriptive concepts, the *conditions* under which they will occur are determined by the larger field structure. To fail to take this into consideration will lead to social-psychological generalities of very doubtful value. Under conditions where the total field remains unchanged such generalizations may hold and it may even begin to look as if certain characteristics of the mechanisms under consideration belonged to "human nature." When these larger settings are changed, however, generalizations regarding types based on consideration of small groups in a differently structured field may be quite erroneous. Even such an able thinker as Freud shows this weakness at times. Freud believes that besides the various love drives, there are aggressive drives which lead individuals to attempt cruel and sadistic attacks on one another. Indications from a civilization where the prevalent familial organization is changed shows such a generalization class-theoretically conditioned. We shall return to this problem later.

In dealing with individuals as primary groups, we must therefore characterize the total field of which these primary groups merely make up limited areas. Certain groups, such as the family, lovers, friends, do function within the total field (*under certain field conditions*), so that for practical purposes one can gain some insight into their social psychology by abstracting them and leaving the total

field out of consideration. In this chapter we shall consider the social dynamics underlying the western European type of monogamous marriage, then love affairs, and finally friendships. In all these cases, even at the risk of being repetitious, let me emphasize that the structure of the small group under consideration will show changes in its structure when the total field changes. Consequently any generalizations we permit ourselves must be understood in reference to certain given field structures. As a single example to illustrate provisionally this point, we point out that during the war friendships of long standing were disrupted for life by the fact that one of the members was a pacifist or an enemy alien.

2. The Family

The daily press, the pulpit, and popular essayists with "worthy" messages are inclined to forget the history of familial and marital relationships, in their emphasis on the "sanctity of the home," the "family circle as the controlling conservative influence in national life," and like topics. Everywhere one finds the belief popularly entertained that the monogamous marital relationship with a family of children as practiced by the majority of upper-bourgeois Americans is the perfect relationship, in fact the relationship "in Heaven ordained."

The Great Variation in Familial Mores.—Individuals are constantly becoming publicly or privately indignant about increased divorce rates, the decline of family feeling, the role of the "broken home" in creating criminals and degenerates, the usurpation of family function by the state and the school. Much undue argumentation about these topics might be avoided if the facts of social anthropology and the history of the marital relationship and family structure were always taken into consideration. Every possible sexual relationship and every possible familial structure has at one time or another or in one place or another been called "by Heaven ordained" for the individuals in question. Whether or not mankind has ever practiced the complete sexual promiscuity of the lower mammalian forms is still the subject matter of some debate among professional students of social anthropology.[1] But we do know that all other forms have existed and been found "the" form under certain definite field conditions. If primitive hordes did not practice complete promiscuity, they at least approached it, and

[1] *Cf.* Westermarck(350), Malinowski(227), and Briffault(30).

through history we have polygamy and polyandry, bigamy and biandry, lasting monogamy and temporary monogamous attachments. We have situations where promiscuity before marriage is looked on as highly desirable, and others where it is smiled on, perhaps furtively, only after marriage. We have single standards and double standards, which are applicable to all the members of society or to only given classes or segments. And with all this variation in marital relationship we have variations in the hierarchial make-up of the family. We find matriarchal families in which the authority is placed in the hands of the mother and inheritance determined through her, and patriarchal families where the father plays this role. In modern America one might almost speak of "filiarchal" families, that is to say, rule by the children.

More detailed discussion of these historical problems of chiefly social-anthropological interest cannot be handled within the limits set for this work. We remind our readers of them because problems of familial organization, such as those of religion and nationality, are often handled emotionally and unscientifically. Monogamy, Protestantism, and the American Constitution become sacrosanct. It is a sign of immorality even to question their singular perfection. This viewpoint is far from that of science, which is, of course, nonvaluative. We believe it is important to stress the fact, however, that the form of the marital relationship and familial organization depends and has always depended on existing field structure and that consequently generalized abstractions about them are impossible. The familial organization varies with the total field structure not only at different historical periods, but also within various economic classes, under different types of national field structure, and under various forms of economic organization. We shall next make a fairly detailed field-dynamical analysis of rural and urban familial structure and briefer ones of bourgeois and proletarian familial structure and of the role of the family in social fields of various degrees of freedom in order to illustrate this point.

3. Rural versus Urban Families

Phenotypical Description.—That the role of the family membership-character as a determinant of individual social psychology differs in rural and urban families is quite obvious. As we go from the frontier pioneer type of family dwelling on a homestead, with its many children, to the family of the modern American city, dwelling

in an efficiency flat with few or no children, the importance of the family organization to the individuals involved is decreasingly diminished. Family feeling is strong in the pioneer community, weak in the city family. The authority of the head of the family is almost complete on the homestead, it is a matter of little importance in the city apartment. In a pioneer community the parents are the school, the church, in extreme cases the state. The family or a few neighbors furnish the club life, the congeniality groups, etc. In city communities there are church organizations, there are schools, there are clubs, and there are laws with policemen to enforce them. Finally and perhaps most important the family dwelling is the center of economic production in the pioneer community, and simply a place to eat and sleep, and sometimes not even that, in the city. If we wish to express this state of affairs field-dynamically, we may say that familial membership-character is of great potency in the rural areas and of little potency in the cities. Naturally between the pioneer frontier family and the city-dwelling family there is a continuous transition, where in general familial membership-character decreases in potency.

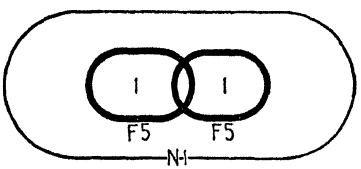


FIG. 44.—Showing the field structure of the pioneer rural family. *N*, national membership-character; *F*, familial membership-character; I, degree of freedom of social locomotion.

Genotypical Description.—Field-dynamically, the pioneer rural family represents a case where the family may be abstracted from the total social field and the rest of the field practically ignored in studying the social psychology of the individual. This situation is indicated in Fig. 44.

The familial field is to be ordered to a field of low degree of freedom of social locomotion with impermeable boundaries, where the barriers to social locomotion are all imposed within this field. The field is not wholly without the mixed membership-character created by topological means, to be sure. As is indicated in the Fig. 44 there are practically always some neighboring families, so that parts of the field represent areas of the topological mean. The family in this case is practically the sole determinant of individual social psychology, the family demands the loyalties and defines the taboos, family structure determines almost exclusively the freedoms of individual action. Family structure, furthermore, under the economic stress of frontier life can show but little variation. To

succeed, strict regimentation is necessary. The father under such conditions becomes the political, economic, instructional, and even religious leader. His authority is hence powerful compared with that of the city father.[1] Thus the economic system of production in a family unit determines the nature of the social field. In cases of pioneer families of course the past membership-character of the pioneers carries over in the new environment and determines the outward form of familial mores and customs.

Certain necessary deductions may be made from the field structure which are subject to verification in terms of statistical indices. In the first place, if such families come into a conflict situation, since they are major social groups, actual physical conflict may be expected to ensue as it does in war. A city family, being a minor sociological group, on the other hand, would not be expected to allow competition to turn into conflict. Actually this is just what occurs in feuds, which are interfamilial wars. We find that feuds occur almost exclusively in rural areas.

In the second place, we may deduce that, since the boundaries of the pioneer rural family are less permeable than those of the urban family, members will gain and lose family membership-character more easily in the city. This is borne out by the available statistics on divorce. The divorce rate is always higher in the city than in the country.[2]

Since country families must of necessity be similarly highly structured and since the family membership-character is of greatest potency in the country, one may deduce that variation in membership-character, and consequently variation in public opinion on matters of religion, politics, and the like, will be less than in the city. This is indicated quite clearly in statistics on variation in public opinion in rural and urban communities.[3]

The family in the urban community cannot be treated without constant reference to the other major social groupings. Members of the city family have practically always membership-character in various other groups. The city family must be considered as having a higher degree of freedom of social locomotion than the country family. Its boundaries are more permeable and the barriers imposed throughout are more permeable. Familial membership-

[1] We shall return to this problem later.

[2] *Cf.* index figures in *Recent Social Trends*(278).

[3] *Cf.* the statistics in Lord(216).

character is of lesser potency than in the rural family. This topologically is characterized in Fig. 45.

The individual has various other membership-characters in social fields, such as in the nation and social class, which may be more potent in membership-character. The permeability of the boundaries is greater than in the rural family, the authority of family leadership of necessity less. For this we may deduce the characteristic differences regarding feuds, divorce, and variation in public opinion which we have already seen is borne out by the statistics comparing the incidence of these factors in rural and urban communities.

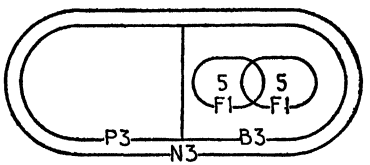


FIG. 45.—Showing the field structure of the urban family. (*Cf.* Fig. 45 and text.)

Urbanization of Rural Families.—There is a particular social-psychological problem involved in the situation where a rural family becomes urbanized, particularly in the situation where a foreign family immigrates into the United States.

The social-psychological changes in the process of such urbanization have been studied in great detail in Thomas' and Znaniecki's *The Polish Peasant*(328). From their studies we find the gradual loss of potency of membership-character of the family, particularly in the children. The children of such families readily obtain membership-character in the various social fields, while the parents usually do not do this. Consequently a situation arises in which some of a family are to be ordered to the type of field structure where familial membership-character is of great potency, while others of the family are conditioned more by other group membership-characters of great potency. This situation is as shown in Fig. 46.

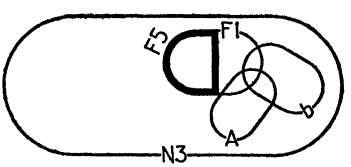


FIG. 46.—Showing the effect of urbanization on the younger members of the rural family. *F5*, familial membership-character of the parents; *F1*, familial membership-character of the children; *N*, national membership-character; *A*, *b*, membership-character in other major and minor groups.

Such a situation invariably causes psychological conflict between the two sides of the family. The parents, in terms of social psychology, still believe in the authority of the family as the basic disciplinary group. The children have their social psychology

determined by the various other membership-characters. Much hard feeling ensues between parent and child and this situation represents one of the chief conditions under which family peace is disrupted. Literature is rich in themes of such internal family strife. Not only does urbanization of the rural family create this situation, but also any field restructurization in which familial membership-character loses potency for some members of the family.

The city family may, however, assume a greater potency of membership-character and hence more resemble the rural family under certain social-psychological stresses. Like any fluid dynamic field it tends to resist the disturbing influence of outside forces by

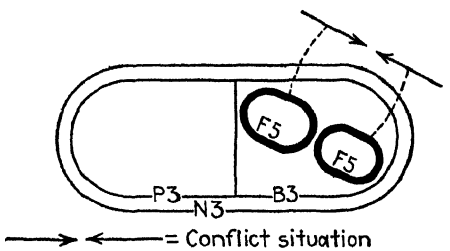


FIG. 47.—Showing the field-structure of families in a conflict situation such as a feud. In such cases the potency of familial membership-character is greatly enhanced.

field restructurization. Such outside forces may be the sickness or death of one of its members, or the attack of one of its members by outside groups. Under these conditions family feeling is enhanced, the family "sticks together," others with whom the individuals previously have had more in common are treated as "outsiders."

Thus the family may, like the nation or a religious body, become the major social group when its organization or wholeness is threatened. Under such circumstances familial discipline for a time at least is more like the rural than the urban family. Such a situation is indicated in Fig. 47.

The differences in the role of the family in rural and urban communities have been discussed. As an example of the dependence of familial structure on field dynamics we have seen that it is possible to deduce these differences from the genotypical characterization of the two types of family and check the accuracy of our reasoning with statistical indices. The family as such then does not determine the social psychology of its members; this is done rather by the

underlying field structure, to which different types of familial organization may be ordered. The difference in the fields underlying rural and urban families is so great that family membership-character in the case of rural families is almost the sole determinant of social behavior and is of practically no importance in urban ones. Thus the family is constantly changing in function as a major social grouping. These changes occur whether we will them or not. It is true that the change in potency of familial membership-character increases social conflicts in many cases. But such conflicts are the cost of social progress. With this in mind we acquire a better understanding of social change. It is sometimes argued that since the family is the basic social unit and since social organization is built upon it, complete change in the sociological and economic order is impossible. Thus Aichorn(6) in an otherwise excellent book on child psychology writes:

> We can easily see why an attempt to change the present order of society always meets with resistance and where the radical reform will have to use the greatest leverage. Our attitude to society and its members has a certain standard form. It gets its imprint from the structure of the family and the emotional relationships set up within the family. Therefore, the parents, especially the father, assume overwhelming responsibility for the social orientation of the child. The persistent ineradicable libidinal relationships carried over from childhood are facts with which social reformers must reckon. If the family represents the best preparation for the present social order, which seems to be the case, then the introduction of a new order means that the family must be uprooted and replaced by a different personal world for the child. It is beyond our scope to attempt the solution of this question which concerns those who try to build up a new order of society. We are remedial educators and must recognize the sociological relationships. We can ally ourselves with which ever system we will, but we have the path of our present activities well marked for us to bring dissocial youth in line with present day society. [From A. Aichorn, *Wayward Youth*, Viking Press, Inc., New York, 1935.]

Aichorn here makes the error of supposing that the present familial organization exists more or less by biological necessity. Such an analysis almost completely overlooks the social-psychological problem. We shall point out in detail the limitations which our present knowledge of social psychology imposes on concepts like "biological necessity," in the next sections of this book. Here let

it suffice to say that the role of familial organization in determining social attitudes is continually undergoing change. The importance of family membership-character derives from the total field structure rather than the inverse of this. This is important because Aichorn is a psychoanalyst, and though the psychoanalysts have much of importance to say regarding the family, their analyses very often lose track of the main trends of historical change. Similarly Freud(118), basing his arguments on certain mechanisms which he finds in the bourgeois family living under a liberal democracy, argues that a change in society to socialism is impossible because of men's aggressive urges. The success of the Soviet Union completely negates the validity of Freud's arguments. In the Soviet Union, as we shall see in Part IV, the family is allowed to take the role which creates the least conflict in the total social field ordered to a collectivistic industrial society.

4. Family and Social Class

The functional significance of familial membership-character depends not only on the economic way of life of the individuals concerned but also on the social-class area in which the family is located. The greater degree of freedom of social locomotion of the typical urban family depends not only on the conditions of city dwelling but also on the social freedom derived to a large extent from membership in the upper- or petty-bourgeois social-class areas. Although the geographical conditions may be nearly the same for all the residents of a city, the physical and economic and sociological conditions vary decidedly as already outlined in Chap. IX on classes as fields. Consequently, in general one must differentiate between bourgeois urban families and proletarian urban families. In the proletarian, familial membership-character often has greater potency than in the bourgeois. The bourgeoisie have relatively more members having membership-character in various groups. In "normal times" these membership-characters are partially directive of the individual's social-psychological attitudes. Consequently the proletarian urban family is to be placed somewhere between the rural and bourgeois urban family in its efficiency as a directive force in individual social psychology. Under certain circumstances of course, for instance real class war, this difference is obliterated. Since the proletarian is less influenced by other

membership-characters one will find a greater uniformity of public opinion in this area of the social field. Under conditions where national membership-character is of high potency compared with class membership-character this leads to a high degree of docility of the proletarians as a class. *When, however, class membership-character has the greater potency, the proletariat reacts with a greater militancy because of the lack of mixed membership-character.* This fact must be taken into consideration not only in analysis of the family, but also in analyses of classes.

5. Family and Nation

The role and importance of familial membership-character also vary decidedly with national field structure. With a great increase in the potency of national membership-character, familial membership-character also loses potency. During war, for instance, familial membership-character (boundary permeability, etc.) diminishes in importance just as class differences and religious differences do. An exact analysis of this situation should not be necessary because this has already been performed for the other groups in Chap. VII.

Political change following a revolution also changes the relative importance of the family as a social force. There is indication of this at the present time in both Russia and Germany. In Russia familial membership-character has become of practically no consequence in determining social psychology because the total sociological energy is directed toward the successful internal solution of the class struggle. In Germany the increasing nationalism has had a like effect.

The upshot of the whole discussion to this point is that the family as a group has *no generalized* function in the social psychology and sociology of the individual. Depending on field structure its role varies in importance according to the field structure. *In general as urbanization and industrialization succeed, however, so that the individual is able or forced to have membership-character in other groups, the importance of the family as a major group is diminished.* This fact is of considerable importance because the future probably will see an increased urbanization and industrialization, perhaps on the basis of capitalism, more probably on the basis of socialism. Consequently, the role of the family will diminish and no amount of

tears shed over the decrease in the importance of this "God-ordained and perfect" institution will stop this process.[1]

6. The Importance of Family Membership-character as a Determinant of Personality

The individual starts his social life as a member of a family, so family membership-character is the *first* attained and it is attained at what biologists agree is the *most* plastic period of the individual's life. From birth until the start of formal education family membership-character is practically the sole determinant of the individual's social psychology. One might say that the individual becomes socialized in the family. All important modern psychologists are in agreement, furthermore, that these years of early childhood, which were previously looked on as of little psychological importance, are of tremendous importance in molding the character of the individual. Certain of the psychologists, most notably Freud, consider that these years to all intents and purposes make the personality. Although I am inclined, for reasons which we can only discuss in the next section, to believe that the emphasis on the early family life of the individual has been unduly stressed since the first discovery of its importance, the following fact may be taken as axiomatic. *Family membership-character is the chief determinant of the social psychology of the child and this membership-character remains important through the individual's life.* It is largely due to the genius of Sigmund Freud that we may assert this, and the section on individual social psychology will contain a somewhat detailed account of Freud's monumental discoveries and theories. Here we accept the fact that the personality of the child is largely determined by his behavioral contact with his parents' personalities. *But the parents' personalities are so largely determined by the groups in which they have membership-character that these membership-characters are reflected in the child.*[2] *Consequently our most important conclusion*

[1] That the present trend is toward increased urbanization is nicely demonstrated in Holcombe's *The New Party Politics*(151). *Cf.* also *Recent Social Trends*(278). Moreover, although in economic depressions there is a temporary setback to the process of industrialization, capitalism must of necessity lead, over long periods of time, to industrialization or chaos. All important schools of economics are in agreement on this one point. *Cf.* Strachey(319).

[2] Often, as we shall see, the psychoanalysts have neglected to take this factor into consideration.

is that the total field structure of which the family is but a limited social region must be taken into consideration.

7. Love Affairs and Friendships

The situation underlying love affairs and close friendships is dynamically the same as that which underlies the family. In this case we treat the group of two individuals as a comparatively segregated area of the total social field. As love affairs or friendships become "great," to use the phrase of the novelists, the relative segregation of this area is increased and also the relative potency of membership-character within it. In extreme cases the individuals may be ordered to a segment of social space that is bounded by a very impermeable boundary and where the freedom of social locomotion is limited almost wholly by the relationships between the individuals. We shall again return to this problem in the next section. Here we must again emphasize that even in the "greatest" love affairs and friendships the individuals come to each other with various group membership-characters which they probably never fully lose. In fact one of the chief concerns of "great" literature, which is very often about "great" friendships and love affairs, is to illustrate the conflict situations which arise out of this interdependence between individuals in love and the groups to which they belong.

8. The Individual as a Social Field

After beginning with the behavior of the largest social groups—nations—we have gradually abstracted groups till we finally arrived at groups of two. We have begun by treating society as an organized whole and analyzed it down to the individual. This whole section has been concerned chiefly with the behavior of groups as such. Our next section will place the emphasis on the role of the individual in the group. Before we proceed to it, however, we must speak of the possibility of treating the individual as a social field. Certain phases of social psychology can best be treated in this way. Particularly important is the problem of the social contact of two individuals. The results of such contact may be understood only if the structure of the individuals as social-psychological fields is clearly defined. The conditions under which an individual is approachable may be ordered in the dynamic sense to changes in the permeability of the boundary of the individual as a psychological

field. In the language of data, one says, "The boss is in a good mood today. I caught him at the right time and he gave me a raise" or "I finally got so-and-so to speak to me today" or "*X* was like a sore bear today, no one could get near him." Dynamically one may say in the first two of the above examples that the permeability of the boundaries of the individuals as structured fields was increased, in the third, that it was decreased. The conditions under which such changes occur will be more definitely treated in the next section. Whether or not individuals may be approached and how much they feel in common has been called by Bogardus(24) "social distance." Dodge(83) speaks of "mental nearness." Both of these concepts are dynamic and approach field theory. However neither Bogardus nor Dodge has shown the dependence of these properties on social relationships. In general social nearness is directly proportional to common membership-character. Common membership-character depends on total field structure in the definite relationships which we have outlined.

9. Summary

1. We have seen that the concept of the family, like that of all other groups so far considered, does not allow generalization except when translated into the language of constructs. The total social field must be characterized. Under certain circumstances (for instance, rural families in conflict situation) the family may be abstracted. Under others such abstraction leads only to meaningless generalities.

2. The family has always changed and is daily changing in its role as a major social group. Every conceivable form of marital relationship and family organization has at some time been that approved by the local mores. This was illustrated by comparing the social psychology of the rural pioneer family with that of the urban family. This comparison indicated that family membership-character was the chief determinant of individual social psychology in the country and of only very limited importance in the city.

3. The functional significance of familial membership-character also depends on the social-class region of the national field in which the family under consideration has membership-character. Family membership-character in proletarian families is normally more potent than in upper-bourgeois families. However this leads to solidarity of the proletariat class in cases of class war.

4. The role and importance of familial membership-character also vary with national field structure. Where the potency of membership-character in the national field is diminished familial membership-character becomes more important.

5. The importance of familial membership-character for individual personality genesis was stressed. Here again, however, the total structure of the social field must be taken into consideration.

6, 7, 8. Love affairs and friendships, even the individual, may be ordered to the social field concept.

Bibliographical Note

The change in form and importance of the family and marital relationships has been demonstrated by the social anthropologists. Sumner's(324) *Folkways* is rich in examples. A more complete discussion is to be had from Sumner and Keller(325). The older work is given in great detail by Westermarck(350). There are many modern studies, the best probably those of Mead(238), Malinowski(227), and Briffault(30).

Reuter and Runner(281) *The Family*, contains a good discussion of the changing role of the family in America. Also worth reading is Groves(131). Statistics on the American family are to be found in *Recent Social Trends*(278).

The relationship of family to social class has been most thoroughly studied by Engels(95). Also pertinent is Bukharin(47).

The best study of falling in love is that of Freud(113). The Freudian literature on family relationships will be given later. The sociological study of the family was started by LePlay(194). Sorokin(308) discusses his school in detail. K. Young(370), Myerson(254), Folsom(107), in fact most of the standard texts in social psychology, contain chapters on the family.

PART III

PSYCHOLOGICAL SECTION

CHAPTER XIII

PERSONALITY AND PERSONALITY TRAITS

1. Personality as the Pattern of Membership-characters

Although personality and problems of personality genesis have interested novelists, essayists, and philosophers from the earliest times, it is only recently that we have the beginnings of a scientific psychological theory of personality. From a scientific theory of personality we should demand exactly what we demand from a scientific theory in physics or any of the sciences, namely, the integration of the facts into statements to which universal assent may be obtained. Such statements are those which are subject to proof or disproof by the experimental method. All purely class-theoretical attacks on the problem of personality were unable to solve the basic problem of personality genesis. Even in scientific usage, until very recently, personality was regarded as an evaluative concept; one spoke of a "good" or "pleasing" personality. It was also considered as something quantitative—one had little or much personality; and constant—one's definite personality remained the integral and distinguishing part of one's ego. The Greeks from the time of Hippocrates and their followers up to the nineteenth century attempted to explain personality by dividing men into various classes. Thus Hippocrates claimed that there were four main personality types, determined by the relative dominance of blood, black bile, yellow bile, or phlegm in the individual's constitution. The Hippocratic classification has endured until today, and we all use the adjectives sanguine, melancholic, choleric, and phlegmatic in describing personalities. Hippocrates' theory was of course realized to be false when modern physiology discredited his specific bodily humors. Galen, the great Roman physician, increased these classes to eleven, but his system was based on the same type of physiology and has long been abandoned. But similar ideas have prevailed up to the present. Just a few years ago the belief was

widespread that our personalities were exclusively dependent on our endocrine glands.[1]

The ancient philosophers as well as the medical men had their personality theories, but these prove on examination to be likewise based on class theory. Thus Plato and Aristotle considered the driving force molding the personality to be the soul or entelechy.

Despite much speculation the Greeks failed to make even a beginning toward the solution of the problem of personality and the Middle Ages did no better. Throughout the Middle Ages and even up to modern times personality was handled mystically. The "good" personality was the gift of God. The "bad" personality frequently was caused by possession by the Devil. Even after Montaigne in the sixteenth century and Voltaire in the eighteenth made men skeptical about such easy mythological solutions and even after the development of nineteenth-century biology when God and the Devil were replaced by Good and Bad Heredity, personality remained as much of an enigma as ever. For it is scarcely necessary to point out again that this change from God to the germ plasm simply passed the responsibility out of the hands of God into the hands of the ancestors several centuries back. Until the turn of the twentieth century the scientific question of personality was not even adequately stated. It was merely "Why did some individuals have much, others little, personality? What were the sources of the good and the bad personality?" Moreover, as we pointed out, personality was always looked on as a constant factor. Since the middle of the nineteenth century, however, a few psychologists and medical men have gradually been at work clarifying the concept of personality and making the beginnings of a scientific study of its genesis. But before we present their findings we must discredit the popular conception of personality which considers it in terms of value and amount, and as a constant.[2]

Popular Misconceptions of the Term "Personality."—We must first combat the usage of the term personality as a quantitative concept. We speak popularly of this person as having a "great deal of personality," of that person as having "but little." It is

[1] *Cf.* A. Roback(284) for the detailed history and Berman(20) for a very exaggerated account of the endocrine theory of personality. A better book on endocrinology is that of Hoskins(155).

[2] From the standpoint of the normative sciences of ethics and aesthetics, personality may be so considered but not from the standpoint of scientific psychology.

true that the individual traits (aspects) of personality vary, but everyone has quite the same amount of personality. Personality hence becomes a qualitative rather than a quantitative aspect of nature and may be defined *as the pattern or arrangement or configuration of the individual traits.* We shall see later that personalities vary in the degree of structurization, but this variance in degree of structurization is more concerned with pattern than with amount. Secondly, we as psychologists are not interested in whether the personality is "good" or "bad." Scientifically we should be able to account for personalities of both sorts on the basis of our general principles. Thirdly, we must combat the idea that an individual personality is a constant aspect of the individual. One's personality changes as the pattern of the traits changes. John Smith or Johann Wolfgang von Goethe has not, from the cradle to the grave, the same definite and precise personality in the scientific sense of the word. When a normal individual goes insane, his personality changes. When he changes his political affiliations, his personality likewise changes. Marriage or divorce or parenthood in its turn brings about personality changes.

Definition of Personality.—By personality we mean technically the qualitative pattern of individual traits. By *traits of personality* we mean the quantitative variations in physique, mentality, attitudes, etc., between individuals. The idiot and the genius, the male and the female, the Negro and the white, do not have quantitatively different "amounts" of personality, although they do have qualitative variations in its structure. Lastly, the psychologist *qua* scientist is not interested in whether the personality be good, bad, or indifferent.

2. The Problem of Personality Genesis

As we pointed out above, personality is very frequently thought of as determined at birth through the type of soul which God gives the individual, or, more rationally, through the individual's personal heredity. The subject matter of the next chapter will be the age-old debate between the proponents of heredity and those of environment. There we shall see what the field theory has to say about this debate. For the present we must simply point out the fallacy of looking on personality as determined at birth. The whole trend of the more modern theory of personality has been increasingly to limit the role

of heredity in the finished personality and increasingly to stress the importance of the environment. This statement is introductory and not quite accurate. One should rather say that the biological structure of the individual has been shown to be of relatively little importance as a personality determinant compared with the forces and structure of the social-psychological surrounding field. *Personality change is primarily determined by the way in which the individual meets blockages in the psychological field.* It is true that certain biological structural factors are determined at birth. But these also must be looked on as the outcome of what might be called the embryological field. Chiefly determined at birth are certain physical characteristics and certain limitations of intelligence. But in the social-psychological sense the important variants (aims, ambitions, attitudes toward other individuals and society in general) are the resultant of social field forces. The problems of individual social psychology to which this section is devoted vary from those of group social psychology *only in that here we can no longer treat the individual as an undifferentiated point-region.*

3. Personality Traits and Their Distribution

The Normal Probability Curve.—Traits are the qualitative aspects of the personality which are subject to definite measurement. An individual gains his individuality in that he has a certain height, certain features, a certain stamina, certain likes and dislikes, certain aims and ambitions. These theoretically at least may be measured. Perhaps it would be more accurate to say that with the exception of physical traits, which can be handled mathematically, the traits may be assigned index figures on the basis of the psychological measurement techniques. Whenever biometricians and psychometricians have measured a sufficiently large number of individuals, they have found that the distribution of the traits of the individuals measured approached the curve of normal probability, the so-called Gauss curve. The curve, where the abscissa is used to plot the amount of the trait in question and the ordinate to plot the number of cases for each value of the trait, gives us the familiar bell-shaped curve (Fig. 48). In the curve the maximal y value falls at $x = 0$. The value of y decreases with increase in either $\pm x$ so that the curve approaches the x axis asymptotically as x approaches ∞ as a limit. As x decreases from $\pm \infty$, y increases at a positively acceler-

ated rate[1] until o acceleration is reached and then decelerates until y is maximal. The x value at the point of o acceleration is called σ (Greek sigma) and is of considerable theoretical importance. We

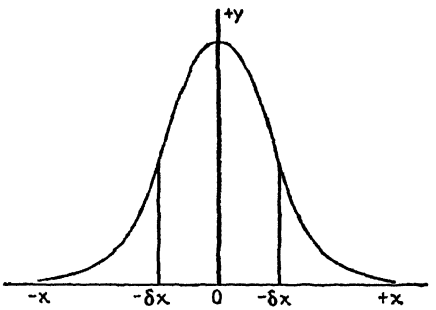


FIG. 48.—The normal probability curve. (*Cf.* text.)

shall return to this later. Figure 49 gives the actual distribution of the heights of 8,585 British males. The Gauss curve may vary in both the rate of acceleration and the maximal value of y but its general shape remains the same. Thus in Fig. 50 we have several

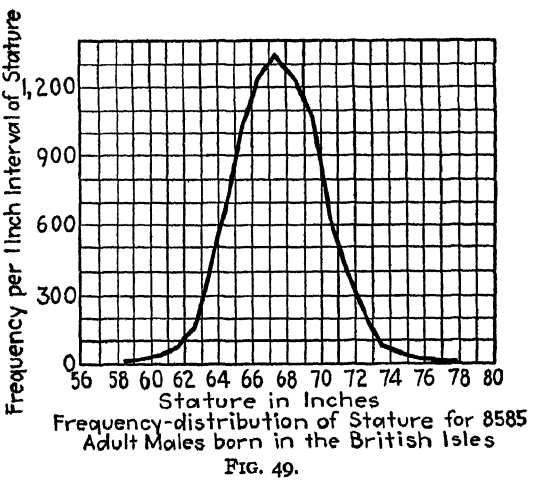


FIG. 49.

normal probability curves of different rates of acceleration and maximal y value. All the curves however have y maximum at $x = 0$ and all have the same general shape.

[1] By a positively accelerated rate is meant that the y values increase relatively more rapidly than the x values.

Whenever biologists or psychologists are able to measure any trait fairly accurately, such distribution is found to occur. Whenever such a distribution has not occurred there are good reasons for believing that the sample[1] was not adequate. Hence, if we measured

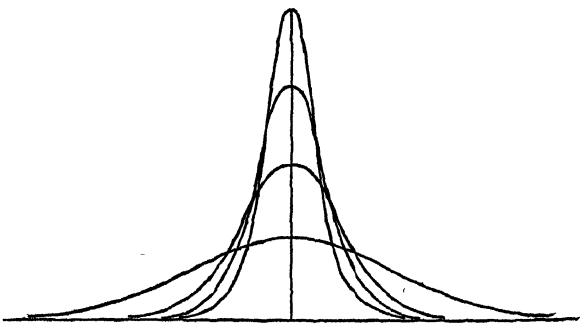


FIG. 50.—Showing several normal probability curves of varying range and central spread. Note, despite the change in range and point of o acceleration, the mathematical constancy of form.

along with the 8,585 British males an equal number of British children under twelve, we should get a curve of the sort indicated in Fig. 51. Such a distribution is called bimodal and arises only when the group chosen is not a homogeneous sample. If we plotted the

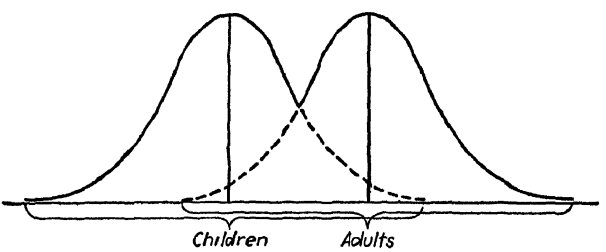


FIG. 51.—Showing the theoretical curve for the heights of children as well as the adults of Fig. 49.

adult males separately from the children we should find two complete and overlapping normal curves. Other measurements have occasionally given empirical curves known as *skewed* curves. If only British males in certain regiments of the army had been chosen,

[1] By sample we mean the individuals chosen for measurement out of a total population. It is of course rarely possible to measure the whole population. The adequacy of a sample depends on the number of individuals and the range (*i.e.*, upper and lower limits of the trait in question). *Cf.* Brown and Thomson(41).

where minimal requirements for height are made, the curve would have the shape indicated in Fig. 52. In this case the sample is not adequate to give the normal distribution because men of the lower height range are arbitrarily excluded. Similar curves would of course be found for the intelligence distribution of students in colleges with strict entrance requirements, etc. An important point is hence to be made. Whenever distributions have been found that

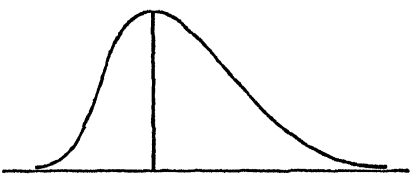


FIG. 52.—Showing the theoretical curve for a selected group resulting in a skew.

deviated from the Gauss curve, these distributions have been found to be due to an error of sampling so that certain of the factors which create the shape of the curve have been controlled or the group has not been homogeneous. From all this it follows that so far as individual traits are concerned *abnormality in any trait represents a difference in degree from the normal and not a difference in kind.* Although the data are not complete for all individual psychological traits, we are safe in assuming that personality traits are *normally* distributed. This discovery of nineteenth-century biological science is of great importance for the theory of personality. Prior to it, it was usually assumed that the important personality traits, such as intelligence, were distributed as indicated in Fig. 53. The reader

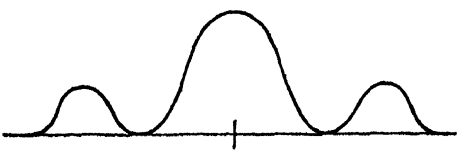


FIG. 53.—Showing the popular misconception regarding the distribution of feeble-mindedness, mental normality, and genius.

is reminded that the trend from class-theoretical to field-theoretical methodology is one from dichotomous classification to the postulation of continuity, uniformity, and homogeneity. The fact of normal distribution of personality traits is one of the cornerstones on which the modern theory of personality is based. The others have already been mentioned. We may repeat that personality is a matter of pattern or arrangement of the traits; that personality is

not to be looked on as an evaluative concept; that personality has its genesis in the way in which individuals meet blockages in the psychological field, so that personality is ever changing.

Theory of Normal Distribution.—To be told that personality traits follow such a curve in their distribution, however, will not satisfy the curiosity of all my readers. The following paragraphs indicate the theory behind such a distribution.

The curve is called the curve of normal probability. Let us see first what probability means. The probability of an event is defined as the quotient of the favorable cases divided by the number of equally possible cases. Favorable cases are those cases which accord with certain criteria we set up. For instance, we may choose *sunny* days, or the *point* one is trying to make in a crap game, or *tall* men. By equally possible cases we mean the total number of events which may occur under any specified conditions. Such for the above examples are *all* the days of the year, *all* the other combinations of two individual dice, men of *all* heights. The probability quotient gives us the chances that the so-called favorable event will occur. That is, it tells us that in all the equally possible cases, the favorable event will occur a certain definite percentage of times. Without further knowledge the event of highest probability is the best bet. In our examples, the probability that tomorrow will be a sunny day in California is greater than it is in England, the probability that a 7 will be thrown in a crap game is greater than that a 6 will be thrown, and the probability that the next man one meets will be 5 feet 8 inches is greater than that he will be 6 feet 2 inches.

But by knowing the total number of equally possible events and the number of favorable cases which have occurred in the past, one can make more precise statements than the "more than," "less than" which we have just made. One can say that the probability of a sunny day tomorrow is 200/365 if one knows that in a given climate 200 days out of the year are sunny. Or one can say quite definitely that the probability of shooting a 7 in craps is 6/36 or 1/6, because if the dice are fair they may fall in 36 different combinations and 6 of these will add up to 7.[1] Or one can say that in England the probability of meeting a man over 6 feet is 236/8585, because the number of Englishmen out of the measured 8,585 over 6 feet was 236. Such statements about the probability of an event show us

[1] The theory of probability is very important throughout modern science. *Cf.* Cauber(72) and Reichenbach(280).

nothing certain, but under conditions next to be explained, they are the best we can do. Certainly knowing them has made professional gambling a sure financial success, and life insurance, which is professional gambling dignified by human interest, a great boon to humanity. Nothing certain is learned about tomorrow's picnic, or my winnings on the crap table, or the next young man some young lady is going to meet. But we do know that of innumerable tomorrows a certain percentage will be sunny, that in innumerable throws of dice a certain proportion of 7's will be thrown, and that in a lifetime one young lady will unfortunately meet a relatively small percentage of six-footers. If we understand probability, we may next go on to the normal probability curve.

The curve is called a probability curve, because it plots all the equally possible cases in such a way that whatever cases are to be considered may be readily compared with the whole group and a probability quotient so calculated. Thus, if one wants to know the probability that the next man he meets will fall between 5 feet 8 inches and 5 feet 10 inches, he can count the number of cases falling between these limits on the curve and divide them by all the cases and arrive at his desired result. In actual practice there are definite mathematical formulas which enable one to read off the relative areas of the curve between any two points on the abscissa, in comparison with the whole curve. Hence for a given set of data different probabilities may be readily determined without counting. However, these statistical procedures cannot be treated in this book and the curious reader may look up these points in some of the works mentioned in the bibliographical note.

Why is it called the *normal* probability curve? We have already pointed out that the general shape of the curve is followed by all sorts of biological and psychological data. Since this is empirically so, *we must consider the curve as the necessary distribution of traits which are determined by many different factors, when these factors are combined by chance.* By chance we simply mean that the factors causing the trait in question are not under control. Let us take height. An individual's height depends on many factors, his father's height, his mother's height, his racial stock, his nutrition, the amount of sunshine in his environment, whether or not he has been subjected to accidents, etc. Now let us suppose for the purposes of clarification a queer sort of society in which all men are either 4 feet tall or 6 feet 1 inch tall, where all women are either 4 feet tall or 6 feet 1 inch

tall, where the nutrition is either so good that it will tend to make the children 6 feet 1 inch or so bad it will tend to allow them only a 4-foot height, where the living conditions are either with sunlight or completely without it, and where all individuals are either subjected to accidents which will shorten their heights or completely free from such. Now let us suppose that these causal factors[1] combine according to the laws of chance in determining the height of a child. In other words, we do not suppose that our 4-foot women show any preference for our 4-foot men or vice versa, or that the 6-foot men will have any advantage in getting the best foodstuffs or living conditions. The children born into this queer society, supposing that it functions biologically like our own, will range from 4 feet to 6 feet 1 inch. Furthermore there will be definite heights, and a certain percentage of them will fall at each of these heights. The reason for this is that chance combinations of the five causal factors create such a situation. The shortest (4 feet) will have all the short factors, the tallest (6 feet 1 inch) all the tall factors, and between these extremes there will be some having one short factor, four tall factors; some having two short, three tall; some having three short, two tall; and finally some having four short, one tall. Furthermore, out of every 32 children, 1 alone will be of 4 feet, 5 will be of the next greatest height, 10 of the next, 10 of the next, 5 of the next, and finally only 1 will measure 6 feet 1 inch. The reason for this is that it is possible to have only one combination of all the factors leading to extreme shortness, whereas it is possible to have five combinations of factors in which one of them tends toward shortness. The father may be short, *or* the mother, *or* the nutrition bad, *or* the family may live in the dark, *or* accidents may occur, while *all* the others tend toward height. Similarly there may be ten combinations where *two* factors create shortness while *three* create tallness. Thus we may have tending toward short, father and mother, father and nutrition, father and environment, father and accidents, mother and nutrition, mother and environment, mother and accidents, nutrition and environment, nutrition and accidents, environment and accidents. In any of these combinations the other three factors of course may tend toward tallness. The meaning of chance combination may perhaps be made clearer if to our curious society we add a curious sort of God

[1] Father's height, mother's height, nutrition, environmental conditions, accidents. These are considered the *only* causes of height in the following lines.

who determines the height of each new soul by tossing pennies. He needs 5 pennies to do this because he must toss one to determine whether the new soul is to have a tall or short father, another must be tossed to determine the type of mother, a third to determine the type of environment, and so on. Over a long time this God will throw 5 heads at a time only once, 4 heads and 1 tail 5 times, 3 heads and 2 tails 10 times, 2 heads and 3 tails 10 times, 4 tails and 1 head 5 times, and all tails only once, out of every 32 throws.[1] Consequently, the total population will follow the distribution given for Fig. 54. Now if these children in

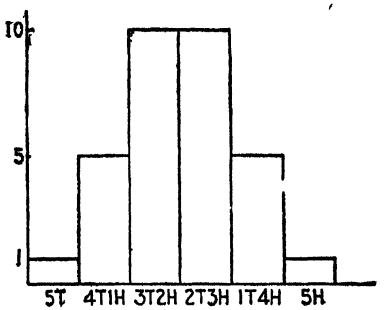


FIG. 54.—Showing the theoretical distribution of tails and heads in 32 throws of five pennies. (*Cf.* text.)

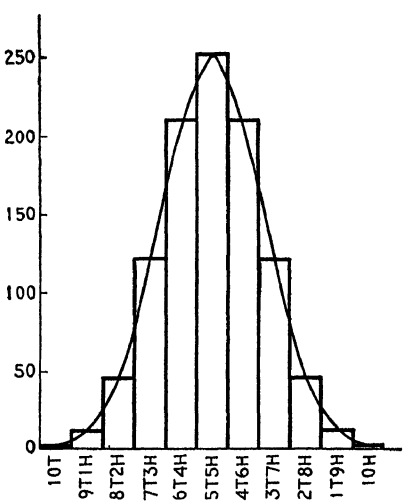


FIG. 55.—Showing the theoretical distribution of tails and heads in 1,024 throws of ten pennies. (*Cf.* Fig. 54.)

their turn mate by chance and if the factors of environment

[1] Readers who are meeting problems of probability analysis for the first time will probably profit by placing themselves in the role of this peculiar God and tossing pennies to determine the relative incidence of the various heights of a population.

are allowed to vary rather than being held constant one readily sees that for the third generation many more coins than 5 will be required for this God's determinations. Actually he would require several hundred. But in order not to become too complicated in our mathematics let us consider a case where there are 10 determining factors rather than 5. In this case there will be 11 discrete heights and they will be distributed as is indicated in Fig. 55. Here again 10 pennies tossed 1,024 times will give 1 toss of all heads, 10 of 9 heads, 45 of 8 heads, etc., as is indicated in Fig. 55. The limits in height will remain as before because the complete lack of heads will continue to account for 4-foot individuals and all heads will produce 6-foot 1-inch individuals.

If we continue to increase the number of contributing factors the limits will remain the same but the number of varying discrete heights will increase enormously. It is quite easy to see that as the number of factors approaches n, the width of the rectangles will approach 0 bases. In other words our distribution will approach the normal probability curve. Thus when n different factors combine according to chance, the relative frequency of each possible combination is given by the ordinate of the normal probability curve. In determining the height of a whole population, we must suppose n factors, so we find the curve normal in nature.[1]

Let us return to our curious God for a time. Suppose one day in a magnanimous mood he decides not to throw the first penny at all, but to leave it turned heads up on the table. In other words, he decides to send the short fathers no children at all so that eventually they will die out. But for the other factors he throws the other 4 coins. The result of this will be that the number of degrees of height will be cut down, so that the very short individuals will no longer have to be counted and that consequently the average height will be increased and the number of very tall individuals relatively increased. The relative numbers out of every 16 individuals having the 5 upper heights will be respectively, 1, 4, 6, 4, and 1. This distribution is indicated in Fig. 56, where the previous distribution is given in dotted lines for comparison purposes. (The curves are given in per cent of the total population rather than absolute values to enable better comparison.)

[1] If one presupposes knowledge of calculus by the reader, the whole argument may be more elegantly given in a few lines of equation. *Cf.* Brown and Thomson(41).

This is exactly what happens when we are able to control any given factor determining intelligence and the like. Thus, control of various factors determining any personality trait may change the limits and average but not the shape of the distribution. This will be of great importance for the argument which follows. It is

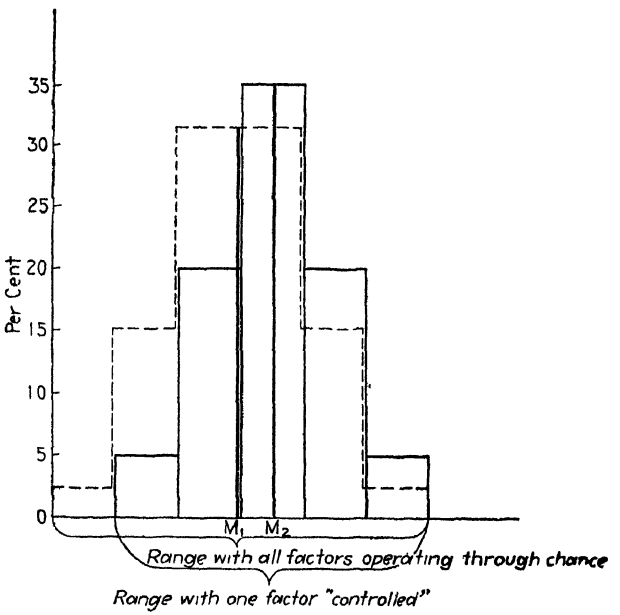


FIG. 56.—Showing shift in the range and average of the normal curve through *control* or *manipulation* of one of the chance factors.

to be hoped that the reader now understands the necessity for the normal probability distribution of personality traits.

4. THE MEANING OF AVERAGES

Whenever we measure definite personality traits we find the greatest number of individuals grouped around a central point on the scale and the numbers of those having more or less than this amount of the trait in question decreasing in frequency on both sides of this. Theoretically, for a trait determined by n different factors, the minimal y values for the maximal $\pm x$ values are indeterminate because y approaches x and then becomes asymptotic against it. For practical purposes, however, we consider the total range (*i.e.*, all the cases) to fall between $x \pm 3\sigma$. The reader will remember σ is that value of x where the curve changes from positive to negative

acceleration. Between the values of $-\sigma x$ and $+\sigma x$ lie somewhat over two-thirds of all the cases. Between $-3\sigma x$ and $+3\sigma x$ lie over 99 per cent of the cases. The value of the mean and the value of σ give us valuable insight into the properties of any normal curve.[1] From the mean we know the greatest single number of individuals having the trait in question and hence the most probable value of the trait. From the point $+\sigma x$ to $-\sigma x$ we know within what limits some 68.26 per cent of the cases lie. From the limits $+3\sigma x$ to $-3\sigma x$ we know for practical purposes the limits of the distribution. For these reasons it is customary in reporting data to give at least the mean and σ when all the data are not included.

The Control of Certain Factors.—Failure to arrive at a normal distribution means usually an inadequate sample. Failure to arrive a second time at the same distribution means that an inadequate sample was used or that certain factors which previously operated according to chance have now been controlled or that certain positive or negative factors which previously operated as equally important factors are now of unequal value. Consequently, one must realize that neither the value of the mean nor the amount of dispersion of psychobiological traits is constant or foreordained by natural laws. By controlling certain factors the *means* may be raised or lowered and the *dispersion* of the distribution increased or decreased. We have already seen a theoretical example of such a change in the case of height, where the hypothetical God gave everyone a good start toward tallness in life by placing his father's height out of the realm of chance. The result was, as we have seen, a rise in the value of the mean and a narrowing of the range of distribution of this trait. In actual practice science, particularly medical science, has done this trick many times for many traits within the last few hundred years. The height of the population has risen, the expectation of life has risen, immunization to many diseases has risen. One used popularly to explain the tendency to probability distributions by saying "nature abhorred the extremes and favored mediocrity." If we are still to use such a characterization of chance distributions, we must add, "but the values of the extremes and of the mediocrity are not inherently fixed in nature." The absolute values of both

[1] It is not our purpose to give a general introduction to statistical analysis in this book. There are many other measures of central tendency and dispersion. The interested reader must look elsewhere for a further discussion. *Cf.* the bibliographical note at the end of this chapter.

means and extremes depend on the factors under the control of human manipulation. Although at the present time standardization of any personality trait through scientific control is quite out of the question, we have every reason to believe that means may rise in a positive sense and that the extremes may be curtailed. This of course is what has happened in the curves of life expectancy for all given ages through the last few hundred years.[1] We must emphasize then that personality traits are "normally" distributed but that values in the normal curve are *relativistic*, not absolute, values. This is necessary because many individuals on first hearing of probability distributions are inclined to assign to them absolute values. Frequently social scientists draw very erroneous conclusions from the curve of normal distribution. The doctrine of the romantic revolutionary period of the later eighteenth century that all men are created free and equal was rudely upset by the biometrical research of the nineteenth century and the psychometrical research of the early twentieth century. Social scientists have thus concluded recently that individual differences in ability rather than equality are most characteristic of *Homo sapiens*. Our conclusion is that actually individual differences are of great importance and will continue to be so. However, the number of chance factors operative in creating the distribution falls to $n-x$, whenever x factors are placed under manipulative control. If this control is toward making the x factors increase abilities then the mean of the distribution will rise and the range decrease. This argument will prove of the greatest importance when we discuss the works of fascist theorists like Spengler and Pareto in Part IV.

5. Total Personalities and Normal Distribution

All our devices for measuring personality traits *must* give us normal probability distributions.[2] The question arises, "Are the individual traits themselves combined according to the laws of chance, so that if we had a measurement of the total personality we would arrive at distributions which would be characterized by a Gauss curve?" The question is one of doubtful meaning, if our definition of personality is understood. Let us suppose that three traits make up the personality and all these in themselves are normally dis-

[1] It is not a biological impossibility that death in a future society be indefinitely postponed. *Cf.* Strachey(319).

[2] Under the presuppositions of an adequate sample and chance causation.

tributed. Then a chance distribution among these traits for individual personalities would again be normal. But instead of arriving at a measurement of personality we would simply be grouping subtraits into a larger trait. To simplify matters let us take an absurd case. Let personality be determined solely by the heights, weights, and intelligence quotients of the population. Let us add these together and use this as an index figure to give us a measurement of personality. $P = H + W + I$. Such a measurement would of necessity give us a probability distribution, whose extremes would be attenuated or enlarged depending on the intercorrelations of H, W, and I. Whether or not this distribution was normal would also depend on these intercorrelations. However, this index would be meaningless for the definition of personality as pattern.

Certain data on first view seem to contradict this assumption of normal distribution. For instance, the intelligence of Negroes and whites living south of the Mason-Dixon line when plotted gives a bimodality. But this bimodality is not inherent in nature. Rather it arises because of the social field structure, in which the Negro is suppressed and fails to develop intelligence.[1] Similarly one finds bimodal distributions in the intelligence of the poor and the rich or the officers and enlisted men in the army or the general population and college graduates. Likewise we find skewing where certain prerequisites such as minimal height or minimal intelligence are required and dictate whether a given individual is to be included in the group or not. The important general finding, however, is that in all cases the traits in question vary in degree and not in kind and that the general shape of the probability curve is retained. *But*, we stress again, *the value of the mean and the limits of the distribution depend on the factors under manipulatory control.*

Changes in Statistical Values with Correlated Changes in Field Structure.—Of the greatest importance for social psychology are changes in the mean and distribution of personality traits, particularly of attitudes, corresponding to changes in the structure of the social field. Thus the attitude of patriotism in wartime changes in its distribution, the worker's attitude toward capitalism changes in its distribution in industrial depression, etc. Figures 57*A* and 57*B* show schematically the changes in distribution of attitude of two countries towards *one* of these countries in times of peace and war.

[1] *Cf.* the standard works on racial psychology, for instance, Garth(128) and Herskovits(143).

Both distributions are bimodal as we should expect because the sample is not homogeneous. The difference between the modes changes radically and the range of the distribution is also curtailed in times of war. A consideration of this and similar cases leads to a very

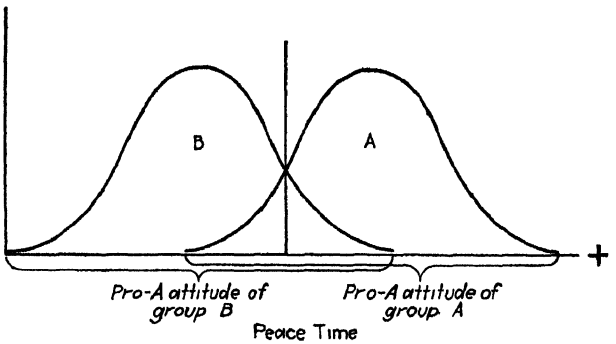


FIG. 57A.—Showing the theoretical distribution of Pro-*A* attitudes of two nations *A* and *B* in peacetime.

important postulate about social-psychological statistics, namely, that *the relative homogeneity of groups depends on the structure of the social field in which the individuals have membership-character.* All too frequently in the past social psychologists have attempted

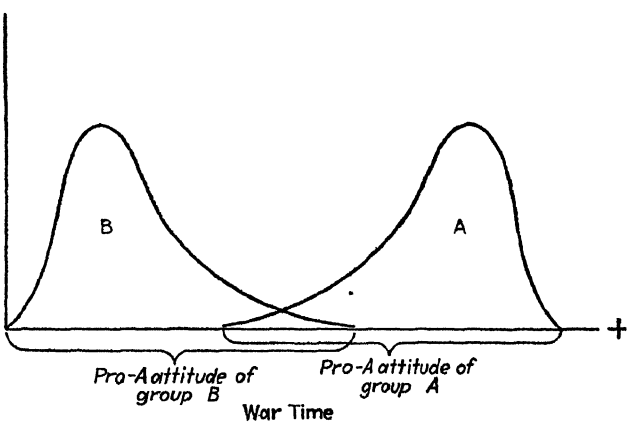


FIG. 57B.—Showing the Pro-*A* attitudes of the same groups in wartime.

analysis on the basis of an abstracted "man" or "economic man" or "social-psychological man." Such abstraction, as we have pointed out time and time again, cannot lead to laws. The concrete momentary situation determines attitudes for whole groups. Hence

personality traits have a definite normal distribution only within a definite social-psychological field. It should now be doubly clear why we can look on no distribution of personality traits as definitely fixed through nature. In the first place, manipulation of any of the causal factors may change the value of both range and average of any distribution. In the second place, changes in the structure of the social field must cause like changes in the distribution.[1]

6. Personality Chiefly Determined by Membership-character

Personality is the pattern of traits and these traits are largely determined by the field structure of the groups in which an individual has membership-character. Certainly so many of the traits which are social-psychologically of importance, are determined by membership-character, that one could define personality for social-psychological purposes as the *pattern of membership-characters of the individual.* If personality is thought of as the totality of ways in which individuals vary from other individuals, we see how adequate this characterization is. The individual's attitude towards his country, his church, his class, his family, are all determined through his membership within certain groups. Furthermore these attitudes change, sometimes very rapidly, with changes in the field structure underlying these groups.

The viewpoint developed in this chapter has very important consequences. A given personality, since it is so largely conditioned by membership-character, is consequently not a fixed thing but an ever changing pattern. W. Koehler in his *Gestalt Psychology*(174) has seen this very clearly when he writes:

> I greatly enjoyed the overture to *Tristan und Isolde* twenty years ago and, at that time, I might have given exactly the same description of my enjoyment as the direct and evident outgrowth of just that piece of music. What has become of my attitude toward the piece? I am tired of it. At present, I should be rather inclined to find aversion the only possible and natural outcome of hearing the overture. Nor would I doubt for a moment what this aversion refers to or is based upon. The answer to this objection will consist in our saying that all this is abso-

[1] Recent work by characterologists [*cf.* Roback(284)] indicates that certain traits like introversion and extraversion may not be normally distributed. This work is too new to be considered in this book, which aims at establishing the most general methodological principles.

lutely true, but that it does not really constitute an objection. With exactly the same physical situation, or sequence of sound-waves, the same person will feel "pleasure" *growing out of* his sensory experience to-day, and be altogether disgusted by it only a few days later on. A simple way to achieve that alteration experimentally would be to give our subject the same sequence of sounds three hundred times each day. But we have no right to say that after more than a thousand repetitions the same melodies will be experienced as having quite the same properties they had to begin with. They have changed, no doubt; they have become a musical commonplace, sounding empty and stale. Keep away from these melodies for a few years! Then you may find something more similar to their original nature again, and if, then, you enjoy them once more, your enjoyment will be felt to grow out of them as obviously as when you first listened to them. An attitude is felt as being the natural outcome of actual experience; the objection stated above misinterprets this definition, as though it meant a constant connection between a set of *stimuli* and the attitude.

For still another reason, music which I enjoyed twenty years ago may not please me to-day, even without the unfortunate influence of frequent repetition. What I call my self has changed its properties considerably in the meantime. Why, then, should the music produce the same effects upon this changed self? Once more I must point out that our feeling of something naturally depending upon something else does not refer to a correlation, or a highly constant "togetherness" *as such*, stated in terms of the external observation of a great many cases. It refers rather to an evident dynamical dependence as experienced *hic et nunc* in one actual case. As this flower before me is certainly red, though if I should become color-blind later on, it would be gray, so such a dependence in the total field is real now, independently of what the future will make of it. [From W. Koehler, *Gestalt Psychology*, Liveright Publishing Company, New York, 1929, pp. 360–361.]

Furthermore, these changes occur not only during childhood and adolescence but continue through life, particularly where the whole social field is changing in structure. Recently I revisited Germany after an absence of three years. During this time Germany had changed from a liberal democratic republic to an absolutistic fascist dictatorship. I called on over twenty old friends and acquaintances, whom I had previously known well enough to say I had known their personalities. Everyone had *changed* his personality, not only with regard to his attitude toward political affairs, but in other reaction tendencies as well. Such a radical restructurization of a total social field *must* affect personality. Individuals who have known insane

people before and during their insanity will see such personality change most clearly. A mild-mannered, happy individual who becomes sunk in the depressive phase of the manic-depressive psychosis so changes his personality that scarcely a single trait (outside of his physique, which indeed sometimes changes, too) remains as it was. From changes in the social psychology of whole nations after revolutions one might say the potentialities of personality change are almost unlimited.

Personality, to sum up, *is neither the gift of God nor the possession of an individual by the devil. It is but little determined through individual heredity. Personality is the pattern of the individual personality traits, which in themselves are largely determined by the structure of the field underlying the individual's membership-characters. Furthermore, personality is not a constant thing but changes radically with changes in field structure.*

7. Summary

1. By personality we mean the pattern or configuration of personality traits. A personality trait is a characteristic in which one varies from his fellow men. The concept of personality is non-evaluative, qualitative, and variable. The vulgar view that personality is to be evaluated, is a purely quantitative entity, and remains constant, was criticized.

2. Personality has a genesis. It is determined primarily in the way in which individuals meet blockages in their psychological fields.

3. Variations in personality traits follow the curve of normal probability. The empirical evidence and the theoretical reasons for this were given. The deviations from the normal curve are due to errors of sampling or interference with the operation of the chance factors.

4. The value of the *mean* and the *range* of distribution, however, are *not* inherent in nature. Human manipulation or changes in field structure may change the value of the mean and the range of the distribution. This is important because social philosophers who previously believed in human equality now believe, erroneously, in the necessity of unalterable human inequality.

5. The total personality may not be statistically measured. Certain sets of traits may vary with changes in field structure.

6. For social-psychological purposes personality may be considered as the pattern of membership-characters.

Bibliographical Note

The general development of personality theory in its history will be treated with detailed references in the next chapter; consequently our references here will be exclusively to the problem of trait distribution. There are several good introductions to psychological statistics. Garrett(127) gives little of the mathematical background but is easy reading; Pearl(264) is somewhat more advanced. Yule(372) develops the mathematics on an algebraic level; Brown and Thomson(41) on the level of calculus. Probability calculus, on which all psychological statistics are based, is given in Czuber(72) and Reichenbach(280).

The concept of normal distribution of personality was developed in the nineteenth century. *Cf.* the classic works of Quetelet(276), Galton(126), Cattell(56), and Binet and Simon(22). The idea that averages and ranges vary with manipulatory control and changes in field structure has always been implicit in psychological data, but is rarely clearly stated. One of the chief aims of this chapter has been to do so.

CHAPTER XIV

THE ORIGINAL NATURE OF MAN

1. The Problem

To the ancients and the philosophers of the Middle Ages the problems of human behavior were relatively simple of solution. Observations of the behavior of individuals under given circumstances were built up by class-theoretical abstractions into the class concept *human nature.* Individuals loved their immediate families, their fatherland, their religion, and hated their enemies, rival nations, and rival religions and it belonged to the "nature of man" to do this. That individuals acted occasionally against "human nature" was realized but such reactions were looked on as accidental or perverse. Thus a dichotomy was set up between the usual form of reaction under the existing field structure and any aberration in behavior from this. Those individuals who failed to act "normally" were considered as "abnormal." In other words the laws of *human nature* were not applicable to them. From our methodological considerations the reader will recognize that here we are dealing with class theory in its pristine form.

The viewpoint that there are certain definite reaction tendencies belonging to humans as humans and making up human nature is still widespread. One hears from the pulpit, reads in popular essays, and picks up in polite society the idea that although social forms and economic systems may change, although invention changes the appearance of the earth, there is something called "human nature" which remains unchanged.[1] Belonging to human nature were at one time considered to be such traits as religiosity, patriotism, preference for monogamy, and other very broad attitudinal reaction forms. More recently, "human nature" was supposed to consist of definite attitudes and instincts. In Chap. V we saw the impossibility of agreement as to what constitutes the basic human instincts. We find a similar state of affairs with regard to what constitutes

[1] This of course was the basic postulate of the literary philosophic doctrine of humanism, which was so popular five years ago.

human nature. It becomes immediately obvious in these pre-scientific discussions how little agreement there is as to what original human nature consists of. John Dewey(80) has pointed this fact out rather nicely in his book *Human Nature and Conduct.*

"Give a dog a bad name and hang him." Human nature has been the dog of professional moralists, and consequences accord with the proverb. Man's nature has been regarded with suspicion, with fear, with sour looks, sometimes with enthusiasm for its possibilities but only when these were placed in contrast with its actualities. It has appeared to be so evilly disposed that the business of morality was to prune and curb it; it would be thought better of if it could be replaced by something else. It has been supposed that morality would be quite superfluous were it not for the inherent weakness, bordering on depravity, of human nature. Some writers with a more genial conception have attributed the current blackening to theologians who have thought to honor the divine by disparaging the human. Theologians have doubtless taken a gloomier view of man than have pagans and secularists. But this explanation doesn't take us far. For after all these theologians are themselves human, and they would have been without influence if the human audience had not somehow responded to them. [From J. Dewey, *Human Nature and Conduct*, Henry Holt & Company, New York, 1922, p. 1.)

Dewey raises a second point about the earlier considerations of human nature. As typified by all class theories, the concept is evaluative. Dewey himself in the course of his book does much to overcome both the dichotomous and the evaluative aspects of the human nature concept. In the argument that follows we are considerably indebted to him although our final conclusion will be even more radical than his.

Social philosophers are in agreement as to the disagreement about what constitutes human nature. They have always felt, however, that there was an irreducible minimum of reaction tendencies which belonged to humans as humans. *From the standpoint of field theory, as this chapter will attempt to indicate, there is no such thing as human nature independent of the existing structure of the social field.* In other words there are no specific reaction forms inherent in the human *qua* human which may be elicited in a social-psychological surrounding field of arbitrary structure. *If there are laws of human nature, these are laws of the socio-psycho-biological field, not laws of the organism considered by itself.* This is simply a definite application of our third

criterion for field theory, namely that in a field theory there is "no local determination."

Heredity versus Environment.—The Greek thinkers were inclined to look on any changes in human activity brought about by happenings in the environment as accidental.[1] More modern theory has been inclined to look on the environment as having certain definite and causally determined effects on the "original human nature." Thus arose the problem of heredity versus environment as a persistent problem in humanity's thinking. Probably all my readers have debated this problem at one time or another in their lives. Biologists, psychologists, and social philosophers have wrestled with it ever since the biological concepts replaced the theological concepts in explaining behavior. There have been times when nearly everything was attributed to man's original nature or what later was called heredity and other times when environment was looked on as the chief determiner of man's psychology and sociology. In this seesawing back and forth between heredity and environment no *one single* question concerning the importance of *either* for any *definite* trait has been answered. Thus even today technical and popular periodicals debate the relative merits of the eugenicists (those believing in heredity) and the euthenicists (those believing in environment) in their plans for bettering humanity. It is also interesting to note that the fascist government in Germany is supporting only biological science which concludes that blood is the important factor, while in the communist dictatorship of Russia environment is more stressed. Not only are the social attitudes of the general public dependent on the total social field structure but even those of men of science. This is becoming daily more obvious, as we shall see again in Part IV. Through this welter of conflicting opinion however one trend is discernible. While the ancients looked on environmentally conditioned changes in behavior as accidental, modern man more and more considers *such changes subject to laws which may be ascertained by the scientific method.* On the whole there has been an increased insistence on the power of the environment to *modify original human nature.* In some hands this insistence on the power of the environment has gone to foolish extremes.[2]

[1] *Cf.* Lewin(202). The Aristotelian physics and psychology considered all behavior which deviated from the "normal" as accidental and not regulated by law.

[2] For instance, in the seventeenth century Locke and Helvetius made extra-

If there were space for us to do so we could show the gradual transition from the Aristotelian belief that human nature was predetermined by the class *human* and only fortuitously modified by experience or environment to the belief held by some modern social philosophers like John Dewey, that human nature is largely the product of environmental forces. This change in basic viewpoint has not been continuous or without setbacks. Thus Locke was almost a complete environmentalist, while his immediate predecessor in British philosophy, Hobbes, believed just as strongly in original human nature. But the trend toward insistence on the increased importance of environment is very clear.

Perhaps the chief change in thinking about this topic was brought about by the widespread acceptance of some form of evolutionary doctrine and the realization that there is psychological as well as biological evolution. Recent anthropologists have shown that the mind of primitive man differs decidedly from that of civilized man.[1] Some thinkers even go so far as to see a basic difference in the reasoning of moderns and ancients. Certainly there has been a decided change in what constitutes scientific explanation from the time of Aristotle until today. It is quite probable that our contemporary thinkers of importance reason in a very different fashion from the important ancients.[2] The whole problem hangs together with that of the transition from a static view of nature; from a view which considers things permanently stable to a view which considers things permanently in change. Experience itself has changed our thinking about man's potentialities. From our primitive ancestors to us as modern men, change in "human nature" has occurred and it seems only reasonable to suppose that change will continue to occur in the lives of our issue. This problem of heredity versus environment, which is simply the biological specialization of the problem of the static and the dynamic, has appeared in philosophy

ordinarily rash statements concerning the complete malleability of human nature. In our own times the behaviorist J. B. Watson(344) has been perhaps even more rash.

[1] *Cf.* Lévy-Bruhl(196), Piaget(269), von Domarus(84), and our Chap. XV.

[2] *Cf.* Lewin(207) and Brown(38). It is interesting to note that changes in mode of thinking do not occur simultaneously with regard to all subjects of consideration. Thus Newton's physical writings represent field-theoretical conception at its best and his theological and biological writings represent class-theoretical conception at its worst; *cf.* More's(243) recent biography.

as the problem of nativism versus empiricism and is closely related to the problem of structure versus function which has in very recent times been subjected to a more basic analysis. Let us see what this has shown.

2. Field-theoretical Definition of Heredity and Environment

Changing Formulations of the Heredity-versus-environment Problem.—The problem as originally phrased was, "What traits are due to heredity and what traits are due to environment?" It was answered by merely listing sets of certain definite characteristics such as physique and calling them hereditary and listing sets of others such as religious beliefs and calling them environmental. It became increasingly clear however throughout the nineteenth century that the question so phrased was meaningless. On the one hand physique obviously depends to a certain extent on nutrition, climate, the status of medical science and practice. On the other the beliefs about God depend decidedly on intelligence, a factor until recently considered as largely determined in the germ plasm. So in enlightened circles and in scientific parlance the question became, "What percentage of a given characteristic is due to heredity and what percentage due to environment?" Even more recently the question has been sharpened, "To what extent may the various hereditary factors be modified by environmental changes?" So from two distinct forces influencing each other but little, we find modern science speaking of their interdependence so that one may dogmatically state, "No heredity without environment, no environment without heredity." This viewpoint may now be considered as established among the more serious critics and theoreticians of general biology, psychology, and sociology. It was established almost simultaneously by Woodger(366) and von Bertalanffy(21) in biology, by Koehler(174) and Wheeler(351) in psychology, and has recently been stressed by Myerson(254) for sociology.

Operational Analysis of Heredity and Environment.—The field theory, however, attempts to think this problem through to its complete logical consequences, to see all the possible implications, and to express the problem in true dynamic concepts. To divide heredity and environment into discrete entities introduces a dichotomy into science. We have seen in our methodological section that field theory deals with continuous rather than discrete phenomena,

and the assembled experience of biological scientists shows us that both practically and theoretically no sharp division between heredity and environment may be made. Although as purely *descriptive* concepts heredity and environment are useful and we shall for convenience use them in this treatise, their use can be justified only because they are convenient. Behavior is to be deduced from the structure of the psychobiological field, which includes the environment, and the individual as a relatively segregated whole within this field. From the time of fertilization of the egg by the sperm, the zygote has an environment. This early environment of course is relatively constant and not subject to manipulation by humans. As we shall see, this is the reason why certain personality traits are relatively fixed at birth and can hence be popularly described as hereditary. In so far as we speak of hereditary traits at all, it will be in reference to the traits determined in the *embryological field* (*embryological field* = zygote (embryo) in the surrounding intrauterine environment). On the other hand environmental traits will mean the traits determined by the structure of the social-psychological surrounding field. Theoretically one can even say the genes (*i.e.*, the determinants in the sense of Mendelian statistical genetics) have a field in the egg and sperm respectively. It is by no means impossible that we shall at some future time have the power to *manipulate* forces in the embryological field. Already beginnings have been made towards an experimental embryology of the lower species with rather striking results. It lies beyond the limits set for this work to deal with these researches. Particularly important work along these lines has been accomplished by the American, Child(60), and the Germans, Duerken(85) and Weiss(347). "Environmental" forces then are subject to control and manipulation; "hereditary" forces are not. We define *operationally* environmental forces as those over which we have potential control and hereditary as those over which we have as yet no possibility of control.[1] One thing is certain: if we may judge the future by past successes, the frontiers of control will be pushed farther back as science grows. Hence from this viewpoint no single trait is for all time determined by any specific hereditary force. A field-theoretical analysis of the problem of heredity and environment leads us to the conclusion that the antithesis between them is meaning-

[1] From this definition many traits which we might control but do not are still to be considered as environmental.

less when we operationally define our concepts. The slogan "There is no heredity without environment, no environment without heredity" may be taken to mean that no trait exists over which we are without some power of control and that for no trait are we able to bring about complete manipulatory control. Those forces which are relatively constant, *i.e.*, not under our power of control, we may call for convenience hereditary, those which we may control, environmental. The whole problem of biological behavior may be defined in terms of the biological field concept. Hence, it becomes of the greatest practical importance to see what forces we may well hope to control in the near future and what if any lie beyond the possibilities of our immediate control. Furthermore, we must see if there are any which by their nature must forever elude us.

3. The Possibilities of Manipulation

It would be simply misleading to say that we can manipulate *all* the forces acting on the individual from the time of his birth, but the forces we can most readily manipulate are, as we shall see, those of the greatest importance for his social psychology. It is perfectly true that many of these "environmental" forces are *not* manipulated at the present time. It is patently clear that very few people have optimal nutrition, optimal pedagogy, optimal medical care, etc. That they do not, simply attests cultural lag or the dependence of manipulation on political and economic factors. The point we wish to make is that should social conditions arise where such manipulation could be undertaken, the human race is scientifically in a position to undertake it. This difference between actual manipulation and potential manipulatory power is of practical significance certainly, but theoretically we must stress the potential manipulatory power. This again we shall see is of the utmost importance in critical analysis of various contemporary social philosophies.

Education, environmental living conditions, social attitudes, etc., are all potentially subject to manipulation. In actual practice, however, what will be manipulated is determined by the social field structure. This is primarily determined, as we saw in the last section, through the means of economic production and the state of invention. The factors which potentially are subject to manipulation are those of the greatest social-psychological importance. It is this fact chiefly which must make us most hopeful for the future

history of mankind, provided, of course, that we are able to overcome that cultural lag which now prevents the scientific treatment of these problems.

Limitations to Manipulation.—For reasons quite obvious the human embryological field is practically shut off from manipulation and experimentation. The beginnings of a respectable science of experimental embryology (*cf.* above) on the lower forms, however, indicates that sooner or later even in man certain aspects of the embryological surrounding field will be manipulated. This will mean pushing control back further so that the individual at birth will be improved in his potentialities for making social-psychological adjustments. Already obstetricians are making "better babies." When work of the sort done by men like Child, Duerken, and others, is applied to human beings many factors which we must now call "hereditary" will undoubtedly be brought into the "environmental" column. Although the beginnings are being made towards embryological manipulation, the factors there determined are of relatively less importance for society as a whole than the factors already "environmentalized." They may be, of course, of the greatest importance for the individual. Thus lack of physical virility in the male and lack of pulchritude in the female are very often causes of personal maladjustment. These factors are, from our standpoint, chiefly "hereditary" or, not subject to manipulation. However for society's future the presence of weak men and ugly women is not nearly so serious as the presence of superpatriots such as William Randolph Hearst and fascist leaders like Hitler. Fascism and patriotism are social attitudes which we are quite sure are "environmental," or potentially subject to manipulation. A word of warning is quite necessary that our position on this point be not misunderstood. We do not, like the fascist theorists, look to the good of "society" or the "state" independently of the individuals who compose it. Only, we wish to stress that if society itself falls into chaos, the individual must fall with it. Consequently social psychology as an applied science must stress society rather than the given individual.

If then the future may see considerably more control over the embryological field than we now possess, we may push the question back one step more. Is there any hope that the chromosomes and genes themselves may be subjected to manipulation? At the present time one must admit that there is little hope except in terms of the

indirect method of selective breeding advocated by the eugenicists. More considered evaluations of this program indicate also that the outlook for selective human breeding is not so promising as the nineteenth-century geneticists thought. The traits of positive social importance like intelligence and emotional stability are quite obviously not Mendelian units. The reasons for this should be quite evident from the discussion so far in this chapter. Furthermore the traits dangerous to society, like stupidity and emotional instability, are likewise partially at least under "environmental" control. Certainly the science of statistical genetics is today in no position to set up a positive program of selective breeding.[1] How is it with the possibilities of actual manipulation? In the first place there are the very obvious experimental difficulties of technique in dealing with these microscopic entities. Added to this are the social difficulties and taboos which also hold back experimentation on the embryological surrounding field. These, however, alone would not make us despair of the hope of ever developing a science of experimental manipulatory genetics.

The Possibility of Indeterminism in the Germ Plasm.—The following point is more serious. Recent developments in quantum physics[2] indicate that there may be indeterminism in the nuclear structure of the atom, so that only a probability analysis is possible in this field. If this is so, it follows as an immediate consequence that relative indeterminism must play some role among the genes. At all events, such factors again are of relatively little importance for social psychology. And even if a causal or dynamic analysis here may only be replaced by a statistical analysis, this alone has great possibilities. The immense methodological and philosophical discussion which has occurred on indeterminism in biology and psychology cannot be reviewed here. Suffice it to say that it is quite likely that potentially man's complete control over his destinies is blocked by Bohr's discovery.[3] Certainly modern science must consider the same physical laws to hold for microphysical processes within the organic tissue as hold in inorganic nature. The best physical thought today looks on the Heisenberg principle as established physical truth. If that be so, complete manipulatory control

[1] *Cf.* the article by Ward(341).

[2] For instance, Heisenberg uncertainty relationship, Bohr's principle of complementariness.

[3] *Cf.* the articles of Bohr(25), Jensen(161), and Jordan(162).

over the germ plasm is a hopeless dream. This should not discourage us, however, from attempting a more adequate manipulation of those forces over which we have potential control and hence from developing a scientific social psychology.

4. "Hereditary" and "Environmental" Traits

We have seen that the only way in which the dichotomy of heredity and environment is of use to us is in enabling us roughly to group together those traits which are relatively constant after birth because they have become stabilized in the embryological field and those which are relatively variable and subject to forces which may be manipulated. In this way the dichotomy may have a certain classificatory usefulness. To such a classification we shall now proceed, emphasizing from the standpoint of field theory the *artificiality* of the grouping and the fact that it is made on *present* potentialities of manipulation.[1]

I. Characteristics of Humans Chiefly Fixed in the Embryological Field

A. Physique.—The physical characteristics of an individual (height, weight, hair, and eye color, as well as the general pattern of physical characteristics) are to be considered as relatively fixed by the embryological field.[2] Some of these are, of course, more subject to environmental control than others. The effects of climate and nutrition on height and weight are too well known to require elaboration. Hair and eye color on the other hand are fairly well established as Mendelian unit traits. Although humans give birth to monsters occasionally, these monsters are, to put it crudely, human monsters, not ape or cow monsters. The species then is determined in the embryological field completely. But here again it is necessary to point out that no sure set of criteria for the demarcation of species has been established.[3] And the recent work of Muller(245) and his colleagues has shown that new species may be created by environmental controls. To be sure the species was created by radiation

[1] In the following classification I have drawn fairly heavily on the recent literature in biology, psychology, and sociology. The chief sources justifying the divisions will be found in the bibliographical note at the end of this chapter.

[2] It should hardly be necessary to warn the reader not to confuse "embryological field," by which we mean the *zygote (embryo) in its environment*, with the embryological environment, which is of course merely the surrounding womb.

[3] *Cf.* the recent article in *Philosophy of Science* by Dobzahnsky(82).

of the eggs of the lowly fruit fly (Drosophila), and the possibilities of similar human manipulation seem far away. But Galileo probably never realized that his discovery of the basic law of mechanics would have the applications we know today. Also the general characteristics or pattern of physique are the outcome of the embryological field. Thus family resemblances are often so striking that an unknown individual is immediately recognized to be a Smith or a Jones. Thus for immediate practical purposes we may include physique in those factors chiefly determined by "heredity." But even here we must not lose track of the fact that height, weight, stamina, etc., are *modifiable* by *manipulatory* changes in the environmental field.

Physique is, to be sure, one of the most important combined traits in the make-up of the human personality. Lack of pulchritude in a female or lack of virility in a male may, in extreme cases, completely modify the personality. Dr. Alfred Adler(4) has in fact attempted to build a whole theory of personality genesis on the idea of "inferiority complexes" developed roughly on such a basis. The Adlerian theory of personality genesis attacks the problem in a somewhat superficial manner, but Adler has succeeded in pointing out that certain embryologically conditioned factors are of great importance in personality genesis. This brings us back to the problem touched upon briefly above, namely the relative role of the manipulable and non-manipulable traits in creating psychological adjustment in the individual. That these physical characteristics are important no one doubts. It is our belief, however, that such deficiencies may be successfully compensated for by environmental manipulation in most cases. Nevertheless, actually changing physique is not generally within our manipulating powers if we except certain particular instances where plastic surgery, endocrine therapy, and special diet may produce effect.

B. Reaction Tendencies.—The properties just spoken of are chiefly structural aspects of the personality. In addition to these must be listed certain functional reaction tendencies which are also primarily determined in the embryological field. Allport(8) makes a rather specific list of these tendencies, which he calls without complete justification reflexes. We can best quote his conclusions concerning these:

It is now possible to return with fuller understanding to the problem stated at the beginning of this chapter. Our aim was to give an account

of the innate sources of behavior, and to show how the complexity of human activities is constructed upon these inborn foundations. A certain group of reflexes, either present at birth or involving a later ripening of receptors and effectors, were selected as the origins for which we were searching. These reflexes are classified as (1) the avoiding reactions, such as infantile withdrawing, rejecting, and struggling, and (2) the approaching responses to the stimulations of hunger and of the sensitive and erogenous zones. In the competition with other reflexes for the final common path, these reflexes are prepotent. They are of the highest importance for the welfare of both the individual and the species. And finally, they determine the subsequent acquisition of knowledge and skill by every human being. The intricacies of human conduct arise as modifications of these simple prepotent responses. [From F. H. Allport, *Social Psychology*, Houghton, Mifflin Company, Boston, 1924, p. 79.]

Thus Allport classifies as prepotent all reaction tendencies which may be elicited at birth or which mature on a purely biological basis after birth. Here for the sake of completeness we ought to add all the non-voluntary reflexes and in general the reflexes under control of the autonomic nervous system. Also we must consider certain voluntary reflexes, like eye movements, grasping, etc. To give a definite list of adequate stimuli for these reflexes would be a misleading procedure, because we now know that almost immediately after birth there is learning (conditioning) which elicits these responses to other than the originally adequate stimuli. This conditioning process must be looked on as environmental. From certain of the researches of the psychoanalysts we also know that even the non-voluntary reflexes under the control of the autonomic nervous system are subject to environmental manipulation. Thus recently the viewpoint has become widespread that also with regard to reaction tendencies no sure line may be drawn between the hereditary and the environmental. The best procedure is to attribute to the embryological field ("heredity") the reaction tendencies necessary to restore organic equilibrium at birth and to keep the organism alive. Consequently nutrition and growth are taken care of and such emotional reaction tendencies are present that the baby is able to "communicate" his needs to the parents through "love," "fear," and "rage" reactions. Such original reaction tendencies then are important in the resulting personality pattern of the adult and are to be looked on as relatively fixed in the embryological field. But they too are subjected from the very start to a certain manipulation by the environment. There is no life

without the "hereditary" basis for life, but equally no life without what Henderson(139) has called an environment of certain fitness.

We have spoken so far of motor responses. On the sensory side certain perception forms must be considered as laid down in the embryological field. Perception of form, color, movement, sound, heat, and the other "elements" of perception depend on the peculiar structure and function of the human nervous system. These perceptions, particularly those of outer reality, only arise in an environment, however, and that changes (manipulation) of the environment cause changes in the perceptions is so well known that it is banal to mention it.

We must add a word or two on motor and sensory limitations, which are quite obviously placed on the organism by the embryological field. Large portions of the physical environment are not perceived at all and differences within the environment are perceived only when differences of a definite amount exist in the physical stimuli. I refer here, of course, to the well-known absolute and difference thresholds for sensation and perception. Similarly, reaction times, fatigueability, hand-eye coordination depend on factors laid down in the period of gestation. Of course all of these are subject to certain and sometimes very great modification with practice.

We have stressed these factors of embryological field determination because students on first acquaintance with the field-theoretical approach are often inclined to interpret it as being simply a new form of environmentalism. Humans have very definite limitations placed on them by the embryological field. Manipulation here should create as great changes in personality as does manipulation of the environmental field. But such manipulation lies beyond us at the present time and we had better turn our attention to those traits which may be modified or even created in the environmental field.

II. Characteristics of Humans in Which the Embryological and Environmental Fields Are Codeterminant

A. Intelligence.—We now turn to those personality traits which are decidedly conditioned by the embryological field but which are highly modifiable by the manipulation of the environmental field. Chief of these is that constellation of traits which psychologists call intelligence. We have seen in Chap. V how psychologists have gradually changed from viewing intelligence as a class-determined concept to viewing it as a field-determined one. From the stand-

point of field theory, intelligent behavior is behavior which arrives at goals. Until very recently psychologists and biologists always believed that this factor was almost completely determined in the germ plasm and in the embryological field. The I.Q.[1] as a measurement of these correlated traits was considered constant so that one accurate measurement would fix it. Recent researches have indicated quite clearly that very moderate changes in the psychological surrounding field will change the I.Q. by 15 to 20 per cent, and cases of fairly radical changes (through psychoanalytical treatment, for instance) up to 40 per cent. That is to say, subnormals with I.Q.'s around 85 have been brought up to normal, and even some morons, I.Q. = 60, have been made normal through specialized education. Doubtless many normals have been raised equally by a favorable "environment" and certainly many a potential genius has retrogressed through unfavorable surrounding field conditions. The cases reported are usually of subnormal children from households rich enough to allow the employment of the services of specialists.

Thus if comparatively mild changes in the structure of the environmental field alter the I.Q. by amounts ranging upward to 40 per cent, it is almost certain that very radical changes would alter it even more. Consequently we may be making a fair estimate when we assign equal values to the embryological and environmental fields in determining intelligence. There are cases of course where the amentia is so severe that the impressions of the changed environment play no role in the psychological field of the child. Thus in fairness it must be recorded that certain forms of clinical amentia are still to be looked on as hereditary.

All these researches indicate the possibility of changing intelligence through planned manipulation of the environmental field. Those "unplanned manipulations" brought about by poverty, by unemployment, or, on the other side, by great wealth and a favorable environment must affect the I.Q. by like amounts. Early researches on the relative intelligence of different races and different social strata were all misinterpreted. We invariably find the economic or racial underdog averaging lower in intelligence than the racial

[1] I.Q. means intelligence quotient and is equal to the mental age divided by the chronological age, × 100. The mental age is determined through tests. The mental age a given individual receives on a test indicates that he is equal in mental ability to the normal individual of that chronological age.

and economic master. When intelligence was considered purely an hereditary matter, one concluded that here were differences beyond human control. More modern research has changed this viewpoint, so that the old slogan of the "poor are poor because they are dumb" must be changed to the "poor are dumb because they are poor."

B. Subtraits Included under the Concept Intelligence.—The tests used to measure the I.Q. are made up of a sample of various goal activities. Each of these is to be considered as partially determined in the embryological field and partially in the environmental field. In actuality, of course, some of the factors such as reaction time are determined almost wholly in the embryological field. Others like school knowledge are determined almost wholly in the environmental field. Exactly what proportion is to be assigned to each of these fields cannot be known without experiment. The continuation of the work along this line is most important and should enable us to give a more precise answer to this question.

III. Characteristics Chiefly Determined by the Structure of the Environmental Field

A. Goals.—We come finally to the characteristics chiefly determined in the social-psychological surrounding field. These are most available to manipulation and at the same time are the factors of chief social-psychological importance. The succeeding chapters of this section of our work will be concerned with them. Here we wish only to point out their nature. First we consider the goals of the individual. What an individual strives for is largely determined by field structure. One may accept the "hereditary" determination of some sort of goal-directed activity. In other words the fact that the individual will strive toward goals in general is determined in the embryological field. Furthermore his perception of the goals as such may be likewise considered as determined at birth. Likewise it is true that his striving for self-preservation and his sexual strivings have been laid down embryologically. But his *method* of making a livelihood and the *type* of person he chooses for a love object are conditioned by the social field or psychological surrounding field.[1] Similarly determined are his reactions to his God, to his nation, and to members of different social classes. His attitudes, his ambitions, his aims, and his ideals all depend on

[1] We shall see shortly that in terms of a stringent field-theoretical analysis even race- and self-preservation "instincts" are not allowable.

his membership-characters. Here again this determination is limited by certain "hereditary" factors. To become emancipated with regard to religion or to acquire a broad social philosophy requires high intelligence. This we have seen is dependent on factors which may be considered partially "hereditary." But such changes in social attitude as have occurred in Russia since 1917 and in Germany since 1918 are quite obviously almost solely determined in the social field.

B. Emotional Strivings.—Finally the emotional strivings of the individual, his loves, his fears, and his hates, are never embryologically conditioned but result from his environmental field structures. The ability to strive, believe, and feel, however, depends, as should now be clear, on certain factors conditioned by the embryological field. *What* one believes, strives for, and feels about, are determined in the environmental field. The division we have made is arbitrary and only useful for classification purposes. Even those traits chiefly determined by "heredity" find constant modification in the hands of "environment." And those chiefly determined by "environment" would not exist at all without "heredity." The upshot of the whole matter is that we can really only differentiate operationally between those factors potentially subject to manipulation and those over which at the present we have no manipulatory control.

5. There Is No Such Thing as Original Human Nature

In the light of the foregoing one may well say there is no such thing as original human nature, that the age-old quest for a definitive list of traits common to humans as humans is a hopeless quest for constants which do not exist. If by human nature one means not a definitive list of structural traits and functional reaction tendencies independent of field structure and constant against it, but *rather the necessary forms of human reaction for each concrete and momentary field structure,* the concept may be saved. It is, I believe, not worth saving because historically it has always been used to refer to certain constants in human behavior. Connotatively, one always thinks of certain strivings and urges and reaction forms which are common to humans because they belong to the class "human." Now it is quite true that in order that human life may go on on this planet, humans must be born and produce children and see these children through the time when they would not be able to exist without the

parents. For these reasons, no one has seriously questioned that tendencies (instincts, drives, etc.) toward self-preservation and race preservation exist. Surely, most biologists would say, it belongs to human nature to be self-preservative and race preservative. We think not. Under certain field conditions humans are self-preservative and race preservative, under others they are not. All students of psychopathology realize the prevalence of suicidal and homosexual tendencies under certain field conditions.[1] The attempt then to retain even the tendency to self-preservation and race preservation, as being the lowest common denominator in "human nature," gets one into difficulties. Have the homosexuals and suicides lost "human nature?" Are they no longer to be classified as men? It is quite obvious that anatomically, taxonomically, and physiologically they remain human. The problem seldom bothered the earlier social philosophers because they were quite content to look on such deviations from the norm as special cases, not necessarily covered by the laws of human nature. But the field-theoretical view of all nature is that nature is continuous rather than dichotomous. And the field-theoretical view has forced itself on us not as a pretty theory, but as the only view which fits the multitude of hard, cold, and sometimes unpleasant facts. All individuals may have hidden tendencies to suicide and homosexuality. Perhaps one should rather say that under selected field conditions all individuals may be caused to develop homosexuality or to become suicides. Since Freud's monumental discoveries the statement of the irreducible minimum of "human nature" must be: "men are by 'nature' either self-preservative or self-destructive and race-destructive or race-preservative," and so we have nothing left. It is better to throw the concept of original human nature overboard and start afresh. There is no such thing as human nature independent of the structure of the psychobiological field.

Reasons for Persistance of Belief in Human Nature.—Why has the viewpoint that there must be some irreducible minimum of reaction traits which remain constant been held so persistently? Why do hostesses in polite drawing rooms insist that human nature remains unchanged, why do critics find eternal appeal in the great Greek and Elizabethan tragedies, why should there be humanists?

[1] Whether or not all individuals have homosexual tendencies is a question to which we shall return in Chap. XV. Similarly it may be that all individuals have aggressive tendencies against themselves; *cf.* Menninger(240).

Science does not answer the question "why?" but science (historical science) can point out the gradual emancipation of human thinking from class thinking to field thinking. The process, as we pointed out above, has been from the viewpoint that all traits were conditioned by human nature to the present viewpoint that only a few but still very important traits are so conditioned. Field-theoretically even these remaining few must be denied. This transition has not been the result of library speculation but of long and painful human experience. The powers of human manipulation, of human psychology, have gradually increased. More important is the fact that large restructurizations of the psychobiological field have occurred independently of men's planning. A few leaders in science and invention have changed the face of the world and with it "human nature." We have come to the point where it seems most profitable to throw over the concept completely. But it may be centuries before the whole human race gives up its class thinking about itself. It may be that the "manipulation" required so that all humans will do so will forever evade us. Aristotle's mode of thinking is easier, more primitive, than Galileo's. The easiest way to understand events is in terms of primitive animism. One perceives most easily that his "soul," "psyche," "ego," moves him around. Why should not even sticks and stones have souls? In primitive animistic thinking they did. Gradually the field dynamics of the sticks and stones became understood. But man can see the soul removed from sticks and stones with more equanimity than from himself. Theologians still speak of the soul as implanted by God. This is the easy way of settling the problem and the individual is soon free to go about his daily work. As A. G. Keller(169) says, "Men have wanted only to be happy in a simple human way, always they have prayed for health, food enough, offspring." The denial of the soul and the placing in its stead of hereditary human nature removes the mysticism of the soul viewpoint, superficially at least, and "passes the buck" from God to our ancestors. Instead of a soul one begins to handle the problem with "hereditary human nature" and is soon free to go out and play again. To see the complex relationships existing in all the problems of human behavior, the cultural-anthropological, the psychoanalytical, the economic, as well as the psychological and sociological, requires time and a clear head. Most humans have neither, not because of "human nature" but because of the structure of the embryological field

from which they came and of the psychosocial field in which they find themselves. So, for some time one may expect that human behavior will be explained by hereditary human nature. Individuals will find that humans by "nature" are "selfish" or "unselfish," "industrious" or "lazy," "religious" or "irreligious," "monogamous" or "polygamous," etc., *ad nauseam*. And the proponents of each of these views will find, by looking at only certain types of structured field, cases enough to prove their points to their own satisfaction and to convert many followers. Also there are "classes" of humans. So it will also be "proved" that Negroes are by nature "stupid," "emotional," "content with a pork chop, a watermelon and a quart of gin"; that it belongs to the "nature" of the proletariat to be "stupid, improvident and unappreciative of the esthetic and intellectual pursuits of the bourgeoisie."[1] Likewise the German will be said to be "industrious," and the Latin "amorous." I would not be at all surprised to have some critic point out that the considerations of this chapter are impossible because it is a part of "original nature of man" to believe in "certain traits of human nature." And he could gather a mountain of evidence from very learned men as well as popular opinion to support him.

We shall clarify our thinking by throwing "original human nature" to the limbo of past beliefs and letting it join company with the soul. Man is not inevitably limited by a definite set of traits which are foreordained in Heaven or in the germ plasm but by his ability to manipulate forces in the embryological field. How limited he is in these fields we have no sure way of telling. But this is certain. He is far less limited than most of his critics have ever believed.

6. Summary

In this chapter we have seen that:

1. Throughout history man has debated the irreducible minimum of personality traits common to all humans or the problem of what constitutes the original nature of man. From believing that practically all personality traits were fixed by human nature, man has gradually come to learn that human nature is modifiable. The problem of human nature and its modificability in modern biological science is the problem of heredity versus environment.

[1] Many such beliefs belong to the "American credo"; *cf.* Nathan and Mencken(256). This witty work just falls short of being of great sociological importance.

2. The gradual accumulation of theoretical and factual data has shown us that such a dichotomy is impossible except for convenience. Actually "no heredity without environment and no environment without heredity." One can define "heredity" operationally as the sum of the traits which we cannot yet "manipulate" and "environment" as traits which we potentially can.

3. The potentialities of manipulation were discussed. We saw that those traits which are potentially capable of manipulation are of the greatest importance for social psychology.

4. From our operational definition we listed "hereditary" and "environmental traits." We emphasized the relativeness of this distinction and the increasing range of the environmental.

5. Finally we concluded there is no such thing as original human nature independent of field structure, and that the whole concept might best be abandoned.

Bibliographical Note

The changes in viewpoint concerning the concept "original human nature" may best be traced in the following histories of psychology: Brett(28), Dessoir(78), Murphy(250), Boring(26). The standard histories of philosophy like Windelband(362) also cover this ground, as do various histories of political science like Murray(252) and also histories of ethics, for instance, Wundt(367). Very keen in its analysis is Dewey's *Human Nature and Conduct*(80). This chapter owes it much.

The transition from human nature determined by the soul, to human nature determined by heredity is largely the work of the nineteenth-century biologists and geneticists; *cf.* Nordenskiold(259); *The History of Biology*. The best general criticisms of the heredity-versus-environment dichotomy are those of Woodger(366), von Bertalanffy(21), and Wheeler(351). So far as we know no one has presented so radical a viewpoint of their interdependence as is presented in this chapter.

The classification of "hereditary" and "environmental" and "mixed" traits given here is based on a large recent literature. The best short single summary of this from the standpoint of social psychology is contained in Myerson's recent work(254). Also good are Murphy and Murphy(251) and Murchison(249). The intelligence problem is handled in great detail by Gladys Schwesinger(298). The problem of Mendelian inheritance of physical traits is handled by Bateson(14). The work on inheritance of mental abnormality and subnormality has been most important in showing that specific mental traits are not Mendelian units. The best summary of this is contained in Bumke's *Handbuch der Geisteskrankheiten* in the article by Entres(99). That attitudes, ambitions, goals, beliefs, etc., are acquired in the social field is the thesis of Bukharin(47). The general problem is handled of course in all textbooks of social psychology.

CHAPTER XV

THE FIELD THEORY OF PERSONALITY GENESIS

1. The Psychological Field of the Individual

Just as the behavior of a social group may be ordered to the genotypical concept of the social field, so may the behavior of the individual be ordered to the genotypical concept of the psychological field. The individual psychological field is a subregion of the social fields in which the individual has membership-character. In making such an abstraction, however, *i.e.*, in considering the behavior of any particular individual, we can no longer regard the individual as a point-region in the social field; what we have previously treated as a point-region must now be differentiated.

The Structure of the Person.—The idea of the differentiation of the person into topological regions is so important that we must here enlarge upon it. The fact that individuals vary in their personalities has been pointed out repeatedly through the last two chapters. *Phenotypically*, one speaks of differences in the various personality traits with regard to presence or absence of certain traits and with regard to the amount present of the traits in question. Thus individual *A* has high intelligence, understands several foreign languages and higher mathematics, is able to play the piano, play tennis, and perform difficult techniques in experimental science. Individual *B* has little intelligence, knows only English and that poorly, and on the motor side can perform only the simplest acts such as walking. In this case we may say that the personality of *A* is more complex than that of *B*. Such phenotypical descriptions are *ordered* to the genotypical description of differentiation of the person. We say that the person of *A* is more differentiated than that of *B*. Topologically this problem is treated by ordering the various motor abilities of the individual to regions within the motor sphere of the person and the various cognitional abilities to the more central spheres, as is shown in Fig. 58. Here individual *A* is contrasted with regard to both motor and central differentiation with individual *B*.

Also important for the understanding of the personality is the integration of the various personality traits. In phenotypical language we may say that *A*'s knowledge of language is integrated with that of science so that he can use the one in his studies of the other, while *B* does not see the connection between his various abilities. In this case we shall speak dynamically of the ease of communication between regions of the person and order this to the idea of relative permeability between the boundaries separating the regions of the person.

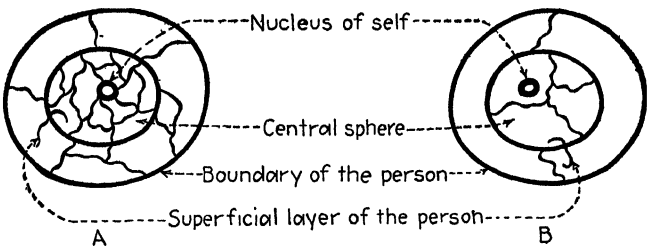


FIG. 58.—Showing the difference in person structure of a highly differentiated individual, *A*, and a slightly differentiated individual, *B*.

Of particular importance is the outer boundary of the person. It is well known that children have no differentiated idea of the ego concept until around the third or fourth year. In this case we say that the boundary of the child's person is relatively permeable. Similarly the well-known psychological differences between extraverted personality types is *partially* accounted for by differences in the permeability of the person boundary, that of the extraverts being relatively more permeable than the introverts.

Psychologically various aspects of the personality differ decidedly in their importance to the individual. Thus while an individual's clothes and outward manners are considered by him to belong to his personality they are usually considered of less importance than his personal idea of his ego or self. Thus we speak topologically of superficial layers of the personality as opposed to deeper lying layers. The deepest of these is usually the idea of the self. This is also indicated in Fig. 58.

The Psychological Field of the Individual.—To return to the concrete problem of the difference between the social and psychological fields, as long as we were considering the behavior of a group we could disregard individual differences—that one member is fatigued, another is intoxicated, another in love; but in making any analysis

of the behavior of an individual such differences must be taken into consideration. Also, for practical purposes, we must know something about the individual's past history. In order to solve problems of individual behavior we must know the exact structure of the field for every concrete momentary situation. This was also necessary in problems of sociology, but as a first approximation for these macroscopic problems we left out of consideration the psychological structure of the individual and were able to get valuable results. We must now begin to consider the individual. Since explicit in the field-theoretical methodology is the demand that the concrete momentary situation be known, actual predictions can be made only as a result of actual experimental manipulation of individuals. Enough such experiments have been performed to allow us certain generalities about individual behavior. In other words certain laws of relationship between field variants have been experimentally established so that we can make predictions for individual behavior if the individual field is adequately characterized. *The individual psychological field then represents the same construct as the social field except that the personality of the individual is taken into consideration.*

If we had to characterize each individual personality trait for each individual, of course our task would be a hopeless one. In practice the structure of the individual must be given only with regard to those differentials which are important for any specific problem. Consequently for problems of individual psychology as for problems of sociology certain abstractions may be made. Thus in comparing the behavior of a child and an adult confronted by a barrier which blocks locomotion to a goal, the person structure[1] of the two must be compared and the plane of reality[2] in which each is behaving must be taken into consideration. For psychological purposes we may here leave out of consideration the fact that the child is short, light, has red hair, etc., and that the adult is tall, heavy, blond, etc. Similarly, in comparing the reactions of a normal with a feeble-minded individual, the reactions of a sober with an intoxicated, or of an angry with a frightened individual, we may in every case consider only relatively few of the various personality traits which

[1] Person structure includes differentiation, boundary permeability, and relationships between the superficial and deep-lying layers of the personality spoken of above.

[2] *Cf.* Chap. III; we also return to the problem shortly.

characterize the whole person. We shall return to the problems of person structure after the discussion of the more general aspects of the individual psychological field.

Individual, Goal and Motive Force.—The psychological field is represented by a bounded limited region in which the direction of the activity and its magnitude are defined by a vector. Such a two-dimensional region suffices to expose any locomotion (*i.e.*, all behavior), be it actual physical locomotion toward a physical goal, or locomotion toward a psychological "state of mind" or toward a social goal. In other words an individual walking to his office,

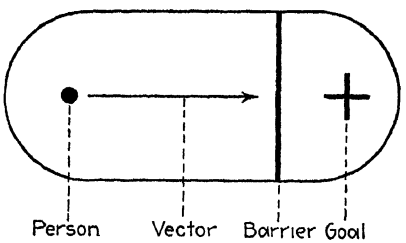


FIG. 59.—Showing the psychological field of an individual reacting toward a goal.

figuring out his income tax return, or trying to get his best girl to say yes, is to be ordered to a point-region in a bounded limited space, where the goal is indicated and the strength and direction of his drive are defined by the vector. This basic situation is indicated in Fig. 59. One must suppose that for individuals to act at all a tension system is set up in the psychological field.[1] Tensions have their origins in a state of biological need. By biological need is meant the fact that the psychobiological equilibrium of the organism is constantly being upset, originally in the child by physiological changes, and shortly afterwards by psychological changes. The perception of a goal which psychologically is wanted or needed occurs simultaneously with the arousal of tension. The tension system within the field is looked on as the source of energy for the vector instigating any human behavior. Thus in the adult the formation of purpose or intention is always on the basis of the formation of a tensional system. Occasionally, as we shall see, the state of tension of a field or of differentiated systems within the person requires specific characterization. The presence of vectorial

[1] Indicated by the experiments of Zeigarnik and Ovsiankina which will be reported shortly.

field force, however, always supposes the existence of psychological tension.[1]

Although the exact position of all goals may not be defined and only under certain conditions may we give the index figure to be assigned for vector strength, considerable experimentation as well as strong theoretical evidence makes us believe that this characterization is adequate. The existence of tension then is a necessary field condition for the occurrence of any sort of psychological activity. Moreover the direction and rate of this activity must be characterized by a vector (*cf.* Chap. III). That the supposition of tension is necessary to account for human activity has been shown in experiments by Zeigarnik(373) and Ovsiankina(261).[2] Zeigarnik instructed subjects to perform a series of some twenty-odd simple tasks and allowed completion of one-half of these but interrupted the other half. Immediately after the experiment the subjects were asked to write down the tasks on which they had worked during the experimental period. On the average nearly twice as many of the interrupted as of the completed tasks were remembered. The memory was used as an index to show the presence of some force remaining in the case of the incompleted tasks. Adequate control experiments showed that the superior memory for these tasks could only be explained on the assumption of tensions in the psychological field underlying the individual activities, which remained after the interruption but which were discharged after completion. In similar experiments Ovsiankina showed that interrupted tasks similar to those used by Zeigarnik were resumed whenever possible, also showing the presence of a tension. These exact laboratory experiments, supported by the observations of many psychiatrists and psychoanalysts, allow us to suppose *that for*

[1] *Cf.* Lewin(206). Lewin's writing is not always as clear cut as it might be with regard to the relationship of tension and vector. In his earlier papers the vector concept is not used and tension is posited as the sole source of psychological activity. Later the vector concept plays an increasingly important role.

[2] This chapter will be largely concerned with the theoretical system of K. Lewin and the experiments performed by him and his students. Much abstraction and condensation have been necessary to force this work into a single chapter. Many of the details of both theory and experimental verification must also be omitted. The author considers this work of Lewin and his school to be one of the most significant contributions to modern psychology. The bibliographical note contains complete references to the individual papers and to more complete summaries.

every behavior there must be a tension in the psychological field and that furthermore blockage of the activity does not remove this tension. It remains, as we shall see, to influence other aspects of behavior as well as the memory. This represents one of the most important discoveries of modern psychology and one on which all important psychologists are now agreed. There is considerable variance of opinion regarding the chief source of the energy and the nature of barriers. Freud insists that the energy source is to be found in erotic and aggressive instincts, Adler that the energy source is from the so-called prestige motive. We shall return to this problem in the next chapter. Here we wish merely to indicate the general agreement as to the necessity for postulating some form of energy in every dynamic system.

These tensions may be correlated with consciously felt desires, and the organism may perceive the goal toward which the vector arising out of the tensional situation is directed. However, many habitual locomotions are performed without conscious concomitants, and the concept of tension has general psychobiological significance. Goals are not always consciously perceived nor is the goal moved always toward the basic goal, as we shall see in the next chapter. The study of habit and abnormal psychology together makes us conclude that *all behavior is "in response" to tensions in the psychological organism and that only a relatively small number of these goals are consciously perceived in their real psychological significance.*

As we saw in Chap. III, a two-dimensional manifold suffices to formulate the problem of any given locomotion. The field in which the locomotions occur, however, may be said to vary in its degree of social freedom and the boundaries and barriers in their permeability. Boundaries and barriers are used here in precisely the same sense as they have been used in the social field. They may again be quasi-physical, quasi-social, and quasi-conceptual in their nature. The individual may be blocked in his attainment by actual physical barriers such as walls or lack of roads, or by mores, social institutions, or laws, or by lack of the intellectual tools necessary to solve a given problem. In characterizing the individual psychological field we must take into consideration the psychological significance of the physical, social, and conceptual aspects of the situation. Furthermore, as we shall see shortly, for problems of individual psychology the degree of differentiation of the person must be taken into consideration.

The most important single situation for the genesis of personality traits is the blocked-goal situation. Since blockage does not remove the tensions, the subsequent history of the individual under blocked tensions becomes of the utmost importance for the individual. We were able to order all problems of sociology to a two-dimensional manifold. The problems of individual psychology require the addition of a third dimension of which we shall next speak.

2. The Reality Dimension

Human versus Animal Mind.—One of the chief distinguishing features of the mind of man compared with that of the higher animals is that man reacts to more social and conceptual goals than do the animals. Even if one compares the higher mammals like the anthropoids with the lower mammals like the rat such differences are obvious. As nearly as we can judge from the studies of animal psychology these differences follow roughly the phylogenetic series so that as one goes up this series one finds animals reacting more and more to conceptual goals.[1] Where most of a dog's life is concerned with food getting, mating, and exercise, a man may spend most of his time in worship or scientific research or in the intricacies of polite society. Such acts as writing a symphony, or devising a system of economics, or winning a political victory at the polls seem on first view to have so little in common with the more basic biological drives that some thinkers, among whom we may mention the humanists, have attributed to humans traits which have no causal connection with the rest of the biological series. However, the life of the chimpanzee[2] shows the presence of conceptual and social behavior quite undreamt of in the dog and cat, and the dog and cat in turn shine "intellectually" in comparison with fishes and reptiles. The chief psychological distinction between the species then is based on the relative amount of time spent in reacting to goals which are social and conceptual.

Differences in Individual Minds.—But this difference in relative time and energy spent in the pursuit of various goals is one which develops in the lifetime of the individual. Furthermore certain individuals spend more time in the pursuit of conceptual goals than do

[1] Lack of space prevents the presentation of the detailed evidence for such a statement. *Cf.* Hempelmann(138), Adams(3), Koehler(173), Maier and Schneirla(226).

[2] *Cf.* the monographs of Yerkes(368) and Koehler(173).

others. The adult stresses conceptual and social goals as compared with the child, the "intelligent" adult as compared with the normal. This whole process has been called the process of differentiation by Wheeler(353). Our next step will be to indicate how it may be described field-theoretically. To account for this variation in differentiation of personalities we must postulate another dimension of our individual psychological field. We shall call this dimension the reality dimension and treat it mathematically as perpendicular

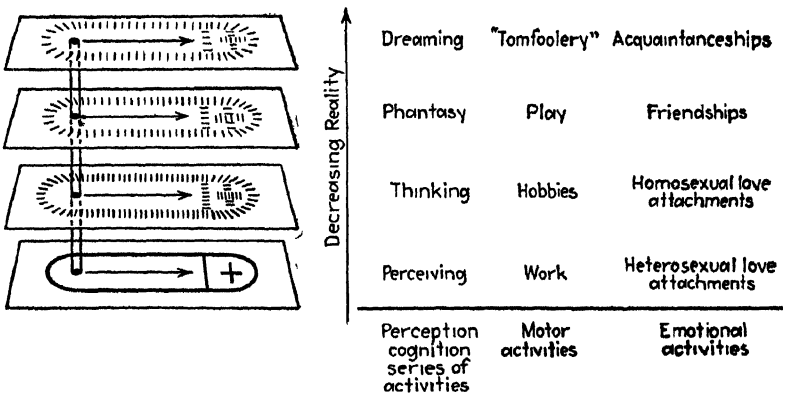


FIG. 60.—Showing the dynamical characteristics of psychological activities of various degrees of reality for the "normal" individual.

to the plane of the activity dimensions. Consequently the personality is to be ordered to a three-dimensional manifold where the locomotions (*i.e.*, the activities) are ordered to a horizontal plane and the degree of reality of the activity is ordered to the vertical dimension. In a so-called normal individual we may roughly order the activities of perceiving, thinking, phantasy, and dreaming to planes of decreasing reality. This is indicated in Fig. 60. We shall give the experimental justification for this shortly, after further elucidating the concept of the reality dimension.

So far it is obvious that psychologically we distinguish between *degrees of reality* rather than reality and irreality, as is done in epistemology. For the "normal" individual, phantasies and dreams are real but they are less real, less actual than perceived events. Similarly in the field of physically performed acts one's work has a greater reality than one's hobby, but a hobby has a greater reality than mere play. And in one's emotional attachments the "normal" heterosexual love fixation is more real than the familial attachments

to one's parents, whereas in turn these are more real than one's homosexual friendships. *All psychological locomotions occur in planes of varying degrees of reality.* The degree of reality of the environmental life space with regard to psychological acts in the perception-cognitional, the motor, and the emotional series for the "normal" is given in Fig. 60.

The reality of an activity influences the ease with which it is performed, the memory for it, and its compulsive value in influencing future behavior. In general one may say that the dynamics of any activity depends on the degree of reality of the plane in which the locomotion occurs. Planes of lesser reality are dynamically more fluid and the boundaries within them more permeable than planes of greater reality.

Reality as a Dimension of Psychological Space.—The question arises as to why it is necessary to add a dimension to the psychological field, rather than simply to treat the activities of varying reality by differently characterizing the two-dimensional fields. Why not say phantasy simply represents activity in a field of greater degree of freedom of social locomotion? We must suppose a third dimension for the following reason: in the "normal" adult locomotions, changes from planes of varying reality, may occur practically simultaneously with regard to certain goals, without the whole personality's becoming embedded in the field of lesser reality. The thwarted lover has phantasies about his loved one simultaneously with normal perceptions of his environment and the realization that his phantasies are not true. A third dimension is hence needed because activities may occur simultaneously in two fields of varying reality.

The question further arises, "Is not reality a subjective concept, dependent on the individual, his history, and his momentary reactions?" The degree of reality which a situation presents to the subject is to be sure dependent on these factors and in this respect may be called "subjective." All dynamic conceptions, however, even those of physics, are originally based on "subjective" impressions. It is the procedure of science as we saw in earlier chapters to translate such phenotypical data into the language of constructs. When this translation is made with the help of operational definition, the concept of the reality dimension of the personality becomes as objective as any other. We shall see that the degree of reality of an activity may be objectively stated by expressing it in terms of its memory value. By so doing the degree of reality becomes a

non-metricized dynamical concept, whereas the dimension of reality is a topological one. *Thus the plane of reality in which an individual is reacting depends on the concrete momentary situation of the individual psychological field and may be operationally defined.* In speaking of the normal above we advisedly used the word "normal" in quotes. Reversals of this normal division of reality planes are most clearly seen in the delusions of the insane. When a schizophrenic patient believes in his daydreams, we may speak of displacement in the reality plane of this individual. What probably previously had low degree of reality for him now has a high degree of reality.[1] Amateur athletes like Bobby Jones probably are reacting in a sphere of higher reality when they are engaging in their sport than when they are practicing their profession. American society ladies very often play bridge in a field of high reality. No doubt many of them could beat Freud and Einstein at the game if these gentlemen played it. It is difficult to see how bridge playing could have high reality for either of them. Furthermore the same activity may have a very different degree of reality under varying circumstances. Afternoon tea drinking as regularly indulged in has very little reality for most people, but a particular tea table over which one proposes marriage to the young lady of his choice may have a very high degree of reality. The degree of reality of an activity varies with the individual from time to time and depends on the concrete momentary structure of the psychological field. It is closely related to the psychobiological significance which an act has for an individual under given conditions.

Dynamic Properties of Various Reality Levels.—In experiments where the conditions are so chosen that the acts to be compared may be said to have varying degrees of reality, certain dynamic properties of the various planes of reality are discoverable. In such experiments the author(36) was able to show that the plane of lesser reality was more fluid and the barriers in this plane more permeable than in a plane of greater reality. The technique was to measure the memory for a series of tasks which were performed in a field of high reality, and compare this with a series of identical tasks performed in a field of low reality. Figure 61 gives the memory curves for the two types of activities. Thus one forgets material encountered in a field of low degree of reality over a period

[1] This has been demonstrated in experiments by the author not yet reported in the literature.

of time very much more rapidly than material encountered in a field of high degree of reality. As a matter of fact under the conditions of the above experiment the material of high degree of reality was not forgotten at all, while that of low reality was forgotten at a rate indicated by Ebbinghaus'(91) well-known curve of forgetting.[1] None of the acts were completed hence each left a blocked tension behind it. Such tensions are shown by the experiments of Zeigarnik to remain and influence further behavior. The tensions in the field of lesser reality were largely diffusely discharged after a week, but those in the field of greater reality were still active.

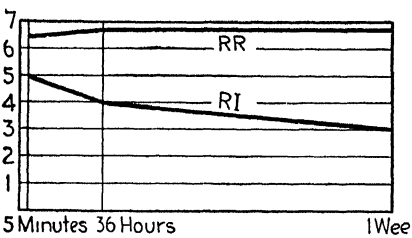


FIG. 61.—Showing the greater memory loss for activities in a plane of low reality (*RI*) compared with a plane of high reality (*RR*). In all 10 tasks of each sort were undertaken. The ordinate gives the number of traits retained, the abscissa the time from the original activity to the test.

Compensation in Various Reality Levels.—Other experiments by Mahler(225) have shown that the compensation value of performing in one sphere of reality an act which was blocked, in a sphere of greater reality depended on the degree of reality of the sphere in which the compensatory act was fulfilled. The technique consisted in the interruption of acts (*cf.* the experiments of Ovsiankina) and the completion of the act in spheres of varying reality and then the finding of whether or not there was a tendency to resume the act after the compensatory fulfillment. The results showed clearly that the compensation value of completion in spheres of less reality was directly correlated with the degree of reality, so that the compensatory value of fulfillment in the field of higher reality was greater than in the field of lesser reality. For example, the difference in compensatory value between completion of an act through actual performance of another substitute act was considerably higher than

[1] There are several important implications from this study for the psychology of learning and memory which cannot be touched on in a work devoted to social psychology; *cf.* the original paper(36) or Lewin's(206) account of the experiments.

through verbal completion. The results of one of Mahler's experiments are given in Table 6.

TABLE 6[1]

	Tasks not completed			Tasks completed by substitution (subst. = *acting*)			Tasks not completed			Tasks completed by substitution (subst. = *talking*)		
n	24	24	18	24	24	23	12	12	11	12	12	12
	TSR	*SR*	*RI*	*TSR*	*SR*	*RI*	*TSR*	*SR*	*RI*	*TSR*	*SR*	*RI*
Per cent	19	33	28	17	4	15	58	8	9	25	0	24
ΣR in per cent	65			29			67			42		
$\frac{RAN}{RAS}$	2.2						1.6					

SR = spontaneous resumption.
TSR = tendency to spontaneous resumption.
RI = resumed after supplementary instruction.
ΣR = $SR + TSR + RI$.
RAN = resumption of acts not completed.
RAS = resumption after completion of substitute act.
n = number of cases.

The supplementary instruction (used with subjects that did not spontaneously resume, at the very end of the experiment, when numbers of both completed and uncompleted tasks were equally accessible) was as follows: "Now do any one of these tasks." The preference for uncompleted tasks in response to this neutral instruction provided in these cases a further criterion for the persistence of the tension.

In the columns *TSR*, *SR*, and *RI*, the figures indicate the total number of cases of resumption of the different kinds, irrespective of whether the same subject showed more than one kind. In ΣR, however, only one resumption of each resumed task is counted for each resuming subject, even though he may have resumed in more than one way. Consequently it may happen that ΣR is less than $TSR + SR + RI$.

[1] Mahler, Table 4, p. 44.

There it is seen that, when half of a series of interrupted acts are "completed" through substitution in the form of real motor activity and the other half are given no substitute activity, more than twice as many acts are resumed for which *no* substitute has been permitted than for those where there has been a substitute act. Thus 65 per cent of the interrupted acts for which no substitute was allowed were resumed, and only 29 per cent where a real motor substitute was allowed. In all but 29 per cent of the cases the substitute discharged the tension. If the substitute activity is simply talking, however, the number of cases of resumption of acts for which *no* act has been substituted is only 60 per cent greater. Thus 67 per cent are resumed where there is no substitute and 42 per cent where the substitute was merely talking. Here 42 per cent of the acts are not

discharged by the substitute. Similar experiments by Lissner(213) indicated that the substitute value of an act depended on the difficulty of the act. If the act is more difficult, substitution has a high compensatory value; if less difficult, a low one. Thus there are devices (memory value and compensation value) which allow us to define the degree of reality of an activity operationally. The general problem of substitution in planes of lesser reality will be treated shortly.

Effect of Frustration.—Experiments by Dembo(76)[1] indicated that blockage by an impermeable barrier in a sphere of high reality forced individuals to attempt phantasy solutions or solutions in a field of lesser reality. Such "flights from reality" to "irreality" are undoubtedly one of the most common experiences of mankind. One is snubbed and promptly one has daydreams in which one triumphs over the snubber. The young man turned down by a young lady imagines himself with the young lady at his knees. The aspiring author reacts to a rejection slip with a phantasy in which he may be the editor. The frequent usage of drugs and alcohol by frustrated individuals is undoubtedly linked with the fact that such narcotics allow the phantasy freer play. *One of the first reactions of the individual to blockage is fulfillment of the act on a plane of lesser reality.* How much satisfaction is obtained by substitution of fulfillment is of the greatest importance for all sorts of both theoretical and practical problems. The general tendency toward attempted solution of difficulties in planes of lesser reality is one of the most important findings of the field theory of personality and we shall deal with it in the next section.

3. The Effect of Blocked Tensions

The most important single factor in personality genesis is the reaction of the individual to blockage in the psychological plane of high reality. It is generally realized today that planes of lesser reality are differentiated as a result of blockage to the vectors by barriers imposed in the environmental field. Although there is much disagreement as to what constitutes the basis for drives and what barriers are most important the general agreement of the

[1] The paper of Dembo is of great theoretical importance in that it attacks complicated affective behavior for the first time from a field-theoretical standpoint. Lack of space prevents as thorough a discussion of this paper as it certainly deserves.

psychoanalysts (Freud and Adler), the field theorists (Lewin and his students), and the child psychologists (Buehler and Piaget) on the basic dynamics of the situation represents a real advance toward a systematic psychology. Furthermore, the way in which these barriers are met determines the individual's personality genesis as well as his immediate reactions. We shall return to the differentiation problem shortly, and for the present shall deal with the effects of blockage on the "normal" adult.

Primary and Secondary Effects of Blockage.—When there is a perceived goal which is blocked by a barrier the normal adult first attempts to arrive at the goal by means of circumlocomotion of the barrier. One wants an automobile and this goal may be obtained by saving money and finally buying it. The original tendency to simply take it is blocked by the mores, the law, and all past training. All these factors represent barriers. But with failure to arrive at the ability to overcome the economic barrier there arises a tendency to think (*i.e.*, to attempt solution in a plane of lesser reality) of a solution. Successful thinking may in its turn enable the individual (through discovery, invention, etc.) to arrive at the means of getting to his goal. But further blockage usually leads the individual to attempt resolution of the conflict situation by recourse to daydreaming or phantasy, which may result in the production of works of art or invention or even in the ability to solve the problem. Such solution may enable the individual to overcome barriers in the plane of high reality. On the other hand not all phantasy solutions have any *real* value and the individual who indulges in them freely becomes simply queer. After several periods of severe blockage the individual may even displace spheres of reality so that his phantasies take on the characteristics of perception. That such displacements occur even in the field of completely "normal" individuals has been experimentally shown by the author in the experiments just mentioned on the dynamic properties of the different levels of reality.[1] Such in brief is the genesis of delusional insanity according to a field theory. The balance between those tensions which can be successfully discharged and those which will have to remain undischarged is one of the most important aspects of the individual's personality. Without any blockage the individual remains a mediocrity, stupid, unimaginative, with "cowlike content." With too many blockages his personality becomes

[1] (36) *cf.* pp. 19–21.

thwarted and even abnormal. Certain blockages are necessary in order that the individual develop personality at all. Others are wasteful and useless. It would be of the greatest practical and ethical significance if we knew more about the precise nature of a successful balance of blockages so that highly differentiated but still happy individuals would be the result.

Although we do not know a great deal about this important problem of the optimal distribution of barriers within the individual psychological field, certain aspects of the problem have already been investigated by the experimental method sufficiently to allow us to make some generalizations. In the first place it should be quite obvious that the presence of barriers may lead to some sort of substitute activity, which will either allow discharge of the tension in a plane of lesser reality or will enable the individual later to overcome the barrier in the original plane.

Emotional Outburst on Frustration.—For some individuals under certain circumstances the response to an impermeable barrier is not the typical one of flight into lesser reality. Dembo also found with some subjects an actual outburst of emotional rage, which was characterized by the individual's leaving the whole psychological field of action. Whether or not such emotional outbursts occur has been shown by her to depend on the general topology of the situation. It may be that the structure of the person has a great deal to do with the reaction to barriers. Certainly feeble-minded individuals and young children who have not yet developed the reality dimension of the personality react more frequently with uncontrolled emotion than do normal adults in such situations. The question also arises whether there are not individuals who are constitutionally unable to gain any satisfaction from the phantasy solution of conflict situations. Such individuals are primarily extraversive and in close contact with reality. The researches of the characterologists indicate this to be a possibility.[1] But for those cases in which substitute activity rather than emotion occurs the question arises as to what if any is the tensional discharge value of substitute activity.

Compensation Value of Tension Discharge in Plane of Lower Reality.—The experiments by Mahler already referred to allow us to state that substitution on a level of lesser reality has compensatory value inversely as the level of reality of the substitute activity is

[1] *Cf.* Shuey(299). Lack of space and methodological considerations prevent any discussion of characterological research; *cf.* the Preface to this book.

separated from that of the blocked activity. Thus Mahler found that performing a substituted real act had rather high compensatory value, while relating the planned solution had some compensatory value, and making a phantasy solution without relating it had practically none. Mahler further showed that the substitute activity had compensatory value only when the substitute action approached the personal psychological goal of the subject. Thus when a problem is set for a subject, and the subject is interrupted in its completion, thinking of the solution has compensatory value *only* when the subject imparts his thoughts to the experimenter. From Mahler's findings we may conclude: *Resolution of a blocked tension in the realm of lesser reality is only possible when this leads to another way of reaching the original personal goal.* In other words phantasy and dreaming have no compensatory value in themselves except in so far as they enable the individual to overcome the barrier in the plane of high reality. We shall see later that in the disease of schizophrenia what was previously phantasy takes on the properties of actual perception for the deluded subject.

The experiments of Lissner(213) further showed that the compensatory value of substitute activity was much greater if the substitute act was more difficult, *i.e.*, looked on as more of an attainment than the original act. Here again the compensatory value is negligible unless the substitute act enabled the subject psychologically to arrive at his own conception of the goal. This work raises the problem of the effect of success and failure on the subsequent goals for which an individual strives. Thus Hoppe(154) found that the effect of success on the whole tended to raise the "level of aspiration"[1] while failure tended to lower it. However, tasks which the individual considered either very easy or hopelessly difficult led to no experience of either success or failure nor to shifts in the level of aspiration. Further studies on this problem by Jucknat(163) indicated that success or failure in one field may seriously displace the level of aspiration in another field. From this we must conclude: *Not only does compensatory value of substitute activity depend on the personal goal, but the personal goal itself is determined by the total structure of the individual psychological field.*

Consequently in general we find that barriers in the psychological field lead to adaptive behavior when the individual is able to use

[1] By level of aspiration (Anspruchsniveau) Lewin means the standard of achievement which an individual sets for himself.

locomotions in the planes of lesser reality or engage in substitute activity which finally leads him to the original goal. We find, furthermore, that the level of aspiration with regard to original goals is constantly shifting. Therefore the optimal distribution of barriers in the psychological field of the individual should be one in which the level of aspiration is raised and in which the individual may arrive at basic goals in such a way that the personality is enriched. We shall return to this problem shortly, after a brief consideration of what happens where the barriers become too frequent or too impermeable to allow adaptive behavior; in other words, where mental abnormality ensues rather than social adaptation.

Preliminary Theory of the Psychoses.—In this treatise there is no space for a detailed discussion of the ways in which blocked drives develop into the real "abnormalities" of both the genius and the insane. A separate text of this length would be required. Here, however, for those readers with some knowledge of the terminology and concepts of psychopathology a sketch of the field theory of the psychoses is given.

For some time now it has been realized that the many discrete psychoses of the Kraepelinian diagnosis could be ordered into larger generic groupings. Thus we distinguish between the extraversive psychosis, the manic-depressive, and the extraversive neurosis, hysteria, on the one hand and the introversive psychosis, schizophrenia, and the introversive neuroses, the obsessional and compulsion types, on the other. Between these two there is a large mixed group consisting of the psychosis paranoia and the anxiety neurosis. All psychotic and neurotic behavior is in reaction to disequilibrium (conflict) of the psychological field where the discharge of certain tensions is blocked. The introversive psychoses represent complete displacement of the spheres of reality and irreality, catatonic stupor representing the extreme in this. The related psychoneuroses represent partial displacement.

On the other hand, in the extraversive psychosis the manic-depressive is unable to make a displacement in reality dimensions, and the manic attack represents, as White(357) has said, a flight into reality, while the depressive phase represents attempted withdrawal from reality unsuccessfully accomplished. Hysteria is simply a minor manifestation of the manic-depressive psychosis both in its excitatory and "flight into disease" aspects.

The mixed types or intermediary types represent the ability to gain satisfaction in the sphere of irreality (phantasy) without losing contact with reality. The mechanism of the balancing delusions of paranoia is thus accounted for (*i.e.*, the delusions are of persecution and of grandeur). The paranoiac displaces a segment of the reality-irreality spheres and builds a balanced equilibrium through the development of the necessary delusions. If he is originally "persecuted" he accounts for it by his fancied "grandeur"; if he is originally "grandiose" his failure is accounted for in terms of "persecution."[1]

Thus with the aid of the concept of the reality dimension of the psychological field we may handle the problems of the effect of barriers on the behavior of the individual. The next problem which arises is the structure of the person.

4. The Structure of the Person

The field-theoretical work on the structure of the person is again largely that of Lewin and his students. It is chiefly included in a paper of his entitled "A Dynamic Theory of Feeblemindedness,"(206) which I believe is destined to play a very important role in future psychological theory. We shall quote from it freely in the following account.

The person according to Lewin differs in degree of differentiation, in material properties, and in content. These differences are given by Lewin as follows:

Differences in Structure of the Person

Degree of Differentiation.—One of the most fundamental dynamic differences between small child and adult is the degree of differentiation in their various psychical regions and systems. The fact that various life-spheres (profession, family, friendships with definite persons, and so on) as well as different needs are much more differentiated in the adult than in the one-year-old child scarcely demands extensive demonstration. In the adult it is generally not difficult to distinguish more peripherally and more centrally located regions. The young child shows far less pronounced *stratification.* Thus in this respect he is a much more unitary

[1] It is realized that this theory of the author's is badly in need of experimental verification and that it deals only with the grossest aspects of these diseases. For instance, the problem of regression in schizophrenia remains untouched. Experimental work, however, has been started along these lines and the initial successes have been considerable. The work will be reported in the technical literature shortly.

system, dynamically a stronger Gestalt. A topological representation of the functional differences of the total personality in respect to degree of differentiation corresponds to the differences between Fig. 62 *a* (child) and Fig. 62 *b* (adult).[1]

Types of Structure.—Together with differences in degree of differentiation, there certainly exist between different individuals important differences in the type of differentiation. The total structure may for instance be relatively harmonious or inharmonious. The dynamic connections between various part systems of the person are by no means

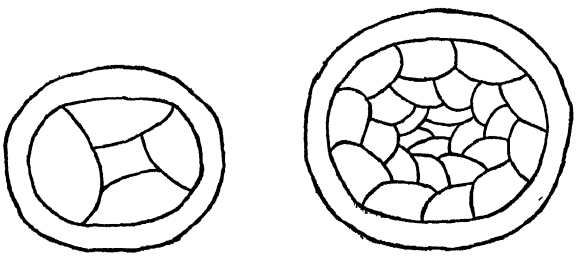


FIG. 62.

equally close. Great individual differences exist with reference to *the way* this delimitation of relatively closed subordinate wholes occurs: which parts are more strongly and which parts more weakly developed, whether the degree of demarcation among the subordinate wholes is relatively uniform or whether separate parts of the personality are particularly isolated. The phenomenon of division of personality is an example of a very special type of structure.

Differences in Psychical Material and in State of the Systems.

Differences in Material.—Diversities in structure (in degree of differentiation in type of structure) do not exhaust the possible differences within the personality. Thus with identical structures, the *ease* with which they *change* may differ decidedly. Further, the shifting may occur suddenly or gradually. In this connection one may speak of a varying dynamic softness, elasticity, hardness, brittleness, or fluidity of the psychical material.

On the whole the infant must be characterized as not only less differentiated but also as more yielding. Among children of the same age there appear to exist great differences in material. The special properties of one's psychical material must constitute a very deep individual peculiarity of the person and play a decided role in heredity.

[1] We have renumbered the figures from Lewin's work to fit our numerical sequence.

If differences in ease of structural change within the system are indicated by variation in thickness of the boundaries separating its various parts, the differences between small child and adult correspond in general to those between *a* and *b*, Fig. 63.

States of Tension in the Systems.—Along with the material properties must also be considered properties of the state of the systems, especially their state of tension. In the satisfaction of a need, for instance, this state of tension may change slowly or rapidly. It is quite probable that together with the diversity of momentary states there exist also enduring differences in the average tension in the systems of the total person. (By

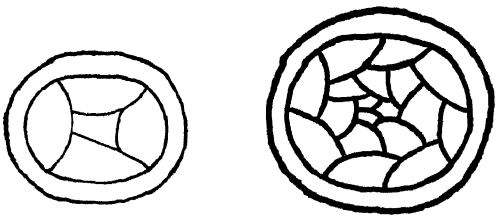


FIG. 63.

material properties in the broad sense we mean to include the properties discussed in the present as well as in the previous three paragraphs.)

The material properties of the different systems within the same individual are by no means completely uniform. The systems of the plane of unreality possess a greater degree of fluidity, and important differences may exist between young and old part regions of the person. In so far, therefore, as we speak of individual differences in the material constants of the person as a whole, it is necessary to compare *homogeneous* parts within the total person.

Differences in Content of Meaning of the Systems.

Even though the structure and the material properties of the two individuals are the same, the content corresponding to the systems may be different and constitute decisive psychological differences of the person. Even though their structure and material properties should be approximately the same, a four-year-old boy in the Russian steppes and one in the Chinese quarter of San Francisco would show important personal differences since the content of their goals and ideals, the meaning of their different spheres of life, are different. In higher degree than material properties and structural plan, these diversities of content depend upon historical influences (pp. 206–209).

From these concepts Lewin is able to build a dynamic theory of feeble-mindedness which has already found experimental support in

the work of Köppke(206) and Erfurth, Lathrop, and Wöhrman(206). Lewin finds that the feeble-minded child differs from the normal in degree of differentiation, and in material properties, as follows:

Degree of Differentiation

The feeble-minded child of, say, eight years is in general less differentiated than the eight-year-old normal child brought up under otherwise

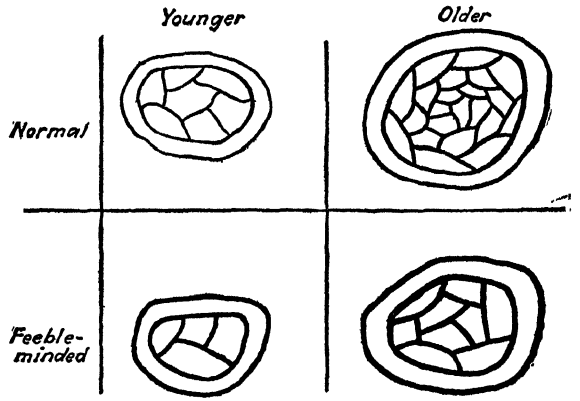


FIG. 64.—Increase in thickness of boundary line here represents decrease in ease of structural change within the system.

similar conditions. Not only is his level of intelligence lower but on the whole it is to be designated as more primitive, more infantile. In respect to structural plan, aside from other differences of structure, the feeble-minded is to be designated as less differentiated. In this respect he resembles a younger normal child (Fig. 64).

The complex of phenomena ordinarily designated as infantilism may be due chiefly to this small degree of differentiation. The greater concreteness of thinking may also be related to this primitiveness in the sense of lack of dynamic differentiation.

Material Properties.

Even though a feeble-minded child corresponds in degree of differentiation to a younger normal child he is not to be regarded as entirely similar. We conceive the major dynamic difference between a feeble-minded and a normal child of the same degree of differentiation to consist in a greater stiffness, a smaller capacity for dynamic rearrangement, in the psychical systems of the former.

That on the whole the feeble-minded is to be characterized as dynamically more rigid, less mobile, is attested by a large number of observations.

[From K. Lewin, *A Dynamic Theory of Personality*, McGraw-Hill Book Company, Inc., New York, 1935, pp. 206–210.]

Thus we can say that the individual psychological problem can be solved in detail only when we know the concrete momentary structure of the psychological surrounding field and the structure of the person. Thus Dembo(76) has shown the great importance of knowing the structure of the person for the exact investigation of emotion. Zeigarnik(373) showed that tensions are not set up in states of extreme fatigue. Birenbaum(23) showed the dependence of tensions on the state of tension of the whole person. An investigation by Karsten(167) indicates that the structure of the whole person must be considered in dealing with problems of psychological satiation. A related study showed that menstruation had a discernible psychological effect on satiation [Freund(123)]. Undoubtedly experiments will show that drugs and narcotics have similar effects. Finally Hoppe(154), Fajans(100, 101), and Jucknat(163) showed the importance of the state of the whole person on the level of aspiration.

At this point the reader may well ask: If psychological prediction is only possible when one knows the structure of the surrounding field, the structure of the person, and his biological condition, is there any use in even hoping for a social psychobiology? I believe there is. But its laws will be concerned with the functional relationships between constructs and will be applicable for individual predictions only where the individual is placed in definitely structured fields. In other words individual predictions depend on manipulation. But this is true of any science. *Laws are descriptions of the necessary functional relationships between constructs.* They tell us what our experience of the future will be, provided the situation is adequately ordered to the constructs and under control. For both psychology and sociology constructs of a topological and a nonmetricized dynamical nature are now available. The interrelationships of these constructs are becoming more clear. Thus we know in general the effects of barriers on the individual psychological surrounding field and some of the chief differentials between persons of different structures.

5. Correlation between Individual Field and Social Field

It may seem that we have deserted the field of social psychology proper in the lengthy discussion of the individual field which we have just covered. This is not the case. We have been concerned

with the effect of barriers on the psychological field of the individual. These barriers are all variants of social field structure. Consequently an intimate relationship exists between the dynamics of the individual field and of the social field. Radical changes in social field structure therefore must effect radical changes in the structure of the individual fields. From the many examples given in Part II this should be so obvious as scarcely to require further elucidation.

The Social Origin of Barriers.—The barriers placed in the way of locomotion in the individual field are quasi-physical, quasi-social, quasi-conceptual.[1] What constitutes barriers depends on the structure of the social field, for instance, the stability of the economic system, the form of the state, the vigor of contemporary religion. To return to our example of the man and the desired automobile, it is obvious that his chances would be less, say in 1934, than they were in 1929. And they would be less in Russia, where private ownership of such vehicles is at present very rare, than in America, where it is common. An individual in love with a Jewess in Germany or a Negress in America has practically impermeable barriers erected to his marriage, while in Russia such marriages are freely allowed. Furthermore, as we saw in Chaps. VI–XII, the goals toward which one strives and his attitudes are largely determined by the structure of the social field.

The first and perhaps the most important barriers are placed in the individual's field in his family field. The next chapter will discuss the nature of these barriers. But the family in turn depends in its whole social psychology on the structure of the national, religious, and class fields in which its members have membership-character. The individual personality then in final analysis depends on the structure of the whole social field. This must always be kept in mind when we speak of individual psychological fields. Failure to do so results in generalities which have only a limited significance.

For purposes of exact prediction one must characterize field-theoretically the whole personality of the individual. One must know the distribution of force, the reality dimension of the field in which his locomotion is occurring, and the structure of the person. For a really precise sociology, this would also be necessary. But for many problems, such as the macroproblems of sociology as we have seen, we can treat individuals as point-regions. Consequently at the present time a scientific sociology may be easier of accomplish-

[1] *Cf.* Chap. III.

ment than a scientific psychology. For prediction concerning the behavior of individuals, past history is often also necessary. We shall return to this problem shortly.

6. The Development of Personality in the Normal Individual

Genius and insanity are closely related in that both develop only after long and persistent blockage in the field of high reality. A highly developed reality dimension is as necessary for the delusions of the schizophrenic as it is for the dreams (realizable in the genius) of the Michelangelo and the Einstein. Genius paradoxically is simply insanity which has a practical value. The genius is able to restructure reality by returning to reality with the results of his flights into phantasy and thought. Several contemporary geniuses would be in asylums were it not for the fact that their "delusions" have a sale value. According to field theory then there is little difference in the psychological mechanisms of genius and insanity, and there are no absolute criteria one can set up to differentiate them except that of the ability to return to the plane of high reality. Both the potential genius and the potential patient in an insane asylum, furthermore, differ from the "normal" only in differentiation of the person and the development of the reality dimension of the personality, and this difference is again one of degree and not of kind. Let us see what general principles concerning the development of the so-called "normal" personality we can set up.

Development of Reality Dimension.—It is now well known that humans start life with a much less highly differentiated reality dimension than they have as adults. To the young child, as Jaensch has shown, the actual perception of an object and the imagination of the same object are not clearly held apart. Seeing a real cat (*i.e.*, physically real) and imagining a cat is much the same process. This has been called eidetic imagery, and as Jaensch(160) and his school have shown young children possess it to a high degree. Furthermore children in their reasoning do not grasp the differences between logic and phantasy, as has been shown in a series of brilliant researches by the Frenchman Piaget(269, 270, 271). In this respect they are like primitives, and Piaget's work logically follows on that of Lévy-Bruhl(196, 197, 198) on the minds of the primitives. Recent researches on schizophrenic thought language, and art have shown

a similar confusion between the "real" and the "irreal" in the schizophrenic, which would indicate the basic correctness of the theory of this disorder.[1] Lewin from experiments(206) has concluded that the child does not differentiate so clearly as the adult between "play" and "work," "games" and "serious" activities. This has been shown in a series of researches by his students and fitted into his very elegant theory of the structure of the person. These researches, which we referred to above, cannot be reviewed here. They have led the psychologists gradually to give up the idea that the child is simply a less competent, a less intellectual, and a weaker adult, and to view him psychologically as a *structurally* different organism.

Differentiation of the Person.—We have seen that the child differs from the adult, according to Lewin, chiefly in the differentiation of the reality dimension of the personality and in the degree of differentiation and fluidity of the regions of his person. The neonate has little differentiation in his reality dimension of the psychological field and in becoming the "normal" adult gradually increases this differentiation. He does so when he is forced to meet blockages in the psychological plane of intermediate reality. The phantasies of lesser reality and the colder facts of higher reality are alike developed through experience. The novelists and poets have realized this for many years but it is only recently that scientists have been able to give such speculations an experimental and theoretically consistent foundation. Furthermore, with this process the regions of the person become more differentiated, the boundary of the self less permeable, and the communication between regions less easy. The reader is reminded that regions of the person are the topological equivalents of the various capabilities on both the motor and the sensory sides which phenotypically make up the personality traits. The boundary of the self is the topological boundary corresponding to the psychological idea of limits of the personality. By communication between regions of the person is meant the integration of the various personality traits.[2] The individual psychologically becomes more differentiated, both with respect to person and in his reactions to environment, as he is forced to meet blockages

[1] The work of Jaensch on eidetic imagery, of Piaget on the mental processes of children, of von Domarus(84), Storch(318), and White(358) on the mental processes of schizophrenics may all be related through the constructs of field theory.

[2] *Cf.* above, pp. 278–279.

in the psychological field. This principle of Lewin's accounts generally for the development of the Freudian reality principle,[1] the Coghill cycle in the sphere of motor activity,[2] and the differences discovered by Jaensch and Piaget between the mental structure of children and adults. *The child then is not a little and incomplete adult but a psychobiological organism whose psychological structural differences from the adult are as great as are his anatomical differences.* This general developmental law has been stated by Wheeler(353) as the law of individuation, namely, that parts emerge from wholes in the process of individuation. The reader naturally will see that this principle follows from the general postulates of organismic biology and the Gestalt theory.[3]

In general we may say: *Personality traits, and thus personality, develop from the way in which individuals meet blockages in the psychological field. The personality starts with little differentiation with regard to person and reality. Differentiation occurs in response to blockage.* Consequently the "richer" personalities are developed through the successful meeting of blockages.

The field theory has not defined either the nature of the tensions or the nature of the blockages which are most important for personality genesis. Various theories have attempted to do this. Of them the most consequential is undoubtedly that of Sigmund Freud. Freud attempts to define the type of tension and the type of blockage which is most important for the personality. Furthermore he introduces the concept of the unconscious, which is of undoubted theoretical importance and which so far has not been adequately handled field-theoretically. Our next chapter will give a brief presentation of his theory.

7. Summary

1. The problems of individual psychology are to be treated with the same topological and non-metricized dynamical concepts as those of sociology except that the individual person may no longer be treated as a point-region.

[1] Taken up in the next chapter.

[2] *Cf.* Coghill(61). Coghill showed that the reflexes differentiate out of mass action, rather than, as was previously supposed, that adult action forms are integrated out of reflexes.

[3] The practical pedagogical implications of this theory cannot be dealt with here; *cf.* Lewin(203, 206).

2. The reality dimension of the psychological field is of the utmost importance for problems of individual psychology. It becomes the third dimension of psychological life space.

3. The introduction of barriers into the psychological plane of high reality, under certain circumstances, leads to the attempted resolution of the tension in a plane of lesser reality or substitute resolution. This fact is of prime importance for all theories of personality genesis. The compensatory value of substitute reaction tendencies has been experimentally investigated. Real compensation occurs only when the substitute activity in some way leads to the personal psychological goal of the individual.

4. The person structure varies in degree of differentiation, materially, and in content. These differences must be taken into consideration in the attempted solution of problems of individual psychology.

5. The structure of the social field is largely the determinant of the barriers and goals of the individual psychological field.

6. The person differentiates and the reality dimension of the psychological surrounding field differentiates through blockage of goal-directed activities in the child's plane of medium reality.

Bibliographical Note

This chapter is based almost entirely on the work of K. Lewin and his students. A fairly complete summary of this work is included in Lewin(206). Most of the individual papers are summarized in Hartmann(133). Lewin(207) will publish his whole theory shortly.

The most important papers of Lewin on this topic are(199), (200), (201), (202), (203), (204), (205), (206), (207). Most of the experiments by his students have appeared in *Psychologische Forschung*, in a series entitled "Untersuchungen zur Handlungs- und Affektpsychologie." This series runs currently and before publication of this book several new researches may have appeared. The student of social psychology cannot be urged too strongly to familiarize himself with this work.

CHAPTER XVI

THE FREUDIAN THEORY OF PERSONALITY GENESIS

1. Relationship between Freudian Theory and Field Theory

In the last chapter we saw that most psychologists are now in agreement that personality develops chiefly through the frustration of certain goal activities during the lifetime of the individual. From the standpoint of field theory one may say that the manner in which individuals meet blockages in the psychological field determines the personality and that the structure of the field is largely determined by the structure of the social groups in which the individual has membership-character. The field theory does not attempt to define the nature of the drives which are frustrated, nor the nature of the barriers met. In fact it believes these things themselves depend largely on the structure of the social field so that they may vary with it. This is implicit in our views on the mutability of human nature. Although the nature of drives and barriers varies with changes in field structure, for any precise actual momentary situation certain definite drives meet with certain definite blockages.

It is the service of the psychoanalysts,[1] chiefly of one of them, Sigmund Freud, to have attempted a more precise definition of the basic urges which become frustrated and of the basic forces which lead to their frustration. We believe that *under existing social and economic field conditions* these drives and barriers function very much as Freud claims they do. Freud however claims that certain drives belong to "human nature" and that it is "human nature" which leads other individuals to set up barriers to these. This point of the Freudian doctrine is not acceptable to the field theory. If the limitation "*under existing field structure*" is prefaced to the Freudian

[1] In this chapter we shall have space to discuss the Freudian psychoanalysis only. Although the theories of Adler, Jung, Rank, and others deviate considerably from that of Freud, they agree that there is psychic determinism, that symptoms have both a cause and a significance, and that frustration is of major importance.

theory in all its statements there is very little difference between it and the field theory. In fact the field theory might be said to be simply an attempt at a more scientific restatement of the Freudian doctrine; one which attempts to allow for the effect of changes in social field structure on personality genesis. In this chapter we shall sketch the Freudian theory, show how it is related to the field theory and what field theory owes to it, and finally how it could possibly be reformulated in a more precise fashion by taking cognizance of the methodology of field theory.

Popular Misconceptions of the Freudian Theory.—Sigmund Freud is certainly the most brilliant of modern psychologists, and his work is undoubtedly destined to be highly influential in building all scientific psychology of the future. His theses have been so radical, so shocking to the "normal" intellect however that he has not received the attention due him from the academic psychologists. In examining nearly all the current texts in abnormal and social psychology, the present writer has not found one which gives an adequate presentation of the Freudian theory in its present form, nor one which criticizes it in a sound methodological fashion. And if scientific treatises misinterpret Freud, popular writings and interpretations of his doctrines go to ridiculous extremes. Actually one of the most important moralists of modern times, Freud has been accused of being the Anti-Christ in person, of being dirty-minded, of being symbolic of cultural decline in an oversophisticated civilization. A careful and important biological scientist, he has been called all sorts of a quack. The reason for this is not far to seek. Freud's discoveries, particularly with regard to the manifestations of the sexual impulses, are of a very shocking nature to normal complacency. Moreover, much as Freud has suffered from critics morally incensed by his treatment of sex as a biological urge, he has been perhaps even more greatly wronged by certain advocates of moral "freedom." Some of these gentlemen have used the Freudian theory as authority for preaching an ethics of unbridled licentiousness and simple sensual hedonism. "Doesn't Freud say we are burdened with repressions? Whoopee! let's lose them." Hence what one might call the criticism of the ministerial alliance damns Freud as a "dirty-minded old man" and what one might equally well call the criticism of Greenwich Village uses him as a scientific excuse for doing those things which they would have been doing with or without Freud's supposed approval. Freud, I imagine, if

it were necessary for him to side would probably accept his moral critics sooner than his amoral enthusiasts. It is true, according to Freud, that repression of libidinal urges is the cause of neuroticism, but this repression is also the necessary price paid for civilization.[1] Freud as an ethical thinker stands firmly by the golden-mean tradition.

Limitations in the Present Presentation of the Freudian Theory.—In this chapter we do not hope to present the Freudian theory in any detail, nor shall we be able even to mention many of its important implications and ramifications. But we do hope to give a clear outline of its basic features as of the year 1935.[2] Furthermore we shall limit our discussion to the development of the "normal" personality. Freud's chief work is on the neurotic personality, and the many cases of such personalities studied by him and his followers must be omitted. The reasons for the limitations imposed on us are obvious when one considers that Freud has been a prodigious writer and his works cover topics not only from his chosen field of medical psychology, but also from psychology, sociology, aesthetics, and even social ethics. The problems he handles cover all the normal and all the abnormal mental phenomena, touch on social and political organization and religion, even raise the problem of the meaning of culture itself. It would be as presumptuous as it would be confusing to try to deal with this tremendous literature here. Only the theory of the normal personality will be developed and that without the evidence on which it is based. The reader who finds the following presentation "hard to swallow," and for many it will be, owes it to himself to go to the original sources.[3]

Every modern who wishes to think of himself as educated should have much more knowledge of Freud than we can present in this chapter. Freud's work has revolutionized modern abnormal psychology. But few of the present literary artists remain uninfluenced by him. Even the man in the street talks somewhat vaguely

[1] Those readers without any knowledge of Freudian terminology may get the gist of this sentence by reading for "repression," "frustration"; for "libidinal urges," "sex desires"; for "neuroticism," "minor forms of mental abnormality."

[2] Because the Freudian doctrine of 1905 is simpler most writers even today present this viewpoint and then knock to pieces the "straw man" thus set up. The Freudian theory, like all healthy scientific theories, has grown considerably in the last thirty years. Particularly important are the changes since 1917, which Freud has recently treated in his *New Introductory Lectures* (122).

[3] *Cf.* the bibliographical note at the end of this chapter.

about his complexes and repressions. And if it is necessary to give still another reason for reading him, in the German at least Freud is a very beautiful literary stylist.[1]

2. Freud's Theory of the Basic Urges

The Polarity of the Basic Urges.—According to Freud the human being has acquired, somewhere in his phylogenetic history, two decidedly innate biological urges or reaction tendencies. In their broadest meaning these urges may be called Eros or the life "instinct" and Arakne or the death "instinct." The forces which impel us to build up, to construct, to preserve ourselves and the species, in other words the self- and race-preservative instincts of the nineteenth-century biologist, are all manifestations of the life instinct. On the other hand the forces which impel us to knock down, to destroy, to turn aggressively on others and at times aggressively on ourselves (suicide) belong to the death instinct. The postulation of a death instinct represents a decided step toward a monistic or non-dichotomous psychological theory, although it is quite obvious that something of a dichotomy remains. The older biological scientists affirmed the life instinct of Freud in the almost universally postulated propensities toward self-preservation and race preservation. Such things were supposed to belong to "human nature" in the sense in which we treated of it above. But homosexuality or suicide were then of necessity looked on as "abnormal" or contrary to human nature. The study of the abnormal personality and the normal personality in childhood has indicated quite clearly that homosexual tendencies and aggressive tendencies toward ourselves and others occur in even the most "normal" of us. Therefore in terms of a class theory they belong to "human nature." Thus all children, according to Freud, in the period just before puberty and usually extending into it, are primarily homosexual. And at all times in everybody's life there exist aggressive tendencies toward others which may approach the homicidal, and toward oneself which may approach the suicidal. Now on making such discoveries Freud realized the inadequacy of postulating only innate urges toward life and love and added urges toward death and hate.

[1] Freud suffered at the hands of most of his early translators. The collected edition of his works issued by the International Psychoanalytical Association, however, is adequately translated.

So to a certain extent he has been able to build a theory which covers both the "normal" and "abnormal" psychological phenomena. But he is yet short of the criteria which we have demanded from truly scientific theory, in that both of these urges are considered instinctive and innate. In fact, it is sometimes quite difficult for Freud himself to say just why the death instinct is in the saddle at one time and the life instinct at another.[1] Consequently Freud approaches the field-theoretical methodology without making a complete transition to it.[2] In some ways the postulation of aggressive as well as preservative urges simply creates confusion. When an individual is acting toward self-preservation the reason given is that such behavior is innate. Likewise innate is behavior which is self-destructive. It belongs to "human nature" to act both toward self-preservation and toward self-destruction. Freud, of course, attempts to give the conditions under which each instinct is operative. We believe a more consequential viewpoint is that of the field theory. According to field theory man's aggressiveness or eroticism depends, of course, on the structure of the total social-biological field.

The Interdependence of the Basic Urges.—The basic urges according to Freud are furthermore not distinct and mutually exclusive independent forces but in behavior primarily motivated by the life urge there may be strong components of aggressiveness and vice versa. Readers who frequently attend the movies have undoubtedly heard the approving gasps when some modern hero strikes the heroine. At the same time there is small doubt that these gentlemen love these ladies dearly. The movies with all their shortcomings are tending in some aspects to treat life as it is. And the newspaper reader is gradually becoming cognizant of the fact that many murders are accompanied by sexual thrills, a fact realized by psychopathologists for many years. It is generally realized today that the most passionate love of a man for a woman contains sadistic components and the woman at the same time

[1] In fairness to Freud it must be stressed that he realizes the inadequacy of his theory of urges. Thus he writes in the *New Introductory Lectures* "Die Trieblehre ist sozusagen unsere Mythologie. Die Triebe sind mythische Wesen grossartig in ihrer Unbestimmtheit." In English, "The theory of instincts is so to speak our mythology. The drives are mythical beings, magnificent in their indefiniteness."

[2] *Cf.* the author's paper, "Freud and the Scientific Method"(38).

returns this love with a love containing a trace at least of masochism.[1] This is the so-called Freudian ambivalence, meaning that personal attachments have both a love and a hate valence. By sadism is meant the satisfaction of erotic impulses by inflicting pain, by masochism the satisfaction of erotic impulses by suffering pain.

Although these basic urges fuse and blend, although nearly all behavior which is motivated by the life instinct has death components in it, and few acts of aggression are totally uncolored by the erotic instinct, the two urges represent a bipolarity in their mutual opposition. Life continues while the life instinct is stronger than the death instinct and when it no longer remains so death ensues. The personality is the resultant of this struggle between the forces of Arakne and those of Eros. This part of the Freudian theory is so speculative that many find it poetry. But even as poetry it is perhaps the best answer we have to the question "Why death?" The question "why" as we saw in Chap. II may only be given a metaphysical answer, and Freud's answer though metaphysical tends to be more scientific than that of the theologians.

The above lines should suffice to convince the reader that Freud does not claim that "sex is everything," as he has been so often accused of doing. Food and shelter getting are accounted for by a certain component of the life instinct. Hate exists as well as love. Anger is quite as important as sex. Freud, however, does emphasize sex in this way. Society he says may repress the sexual urges without destroying the individual. Individuals live without giving free reign to their sexual urges, but they must eat and must refrain from mutual slaughter if society is to go on. Hence the urges most often repressed (at least in a society where the vast majority are clothed and fed) are the sexual component of the life instinct, the homicidal component of the death instinct.[2] It is consequently with these repressed urges that most of the Freudian writings have been concerned and it is easy to see why superficial students of Freud have found everything attributed to sex.

[1] Sometimes of course the relationship is reversed, the male being masochistic, the female, sadistic.

[2] In his very important essay, *Civilization and Its Discontents*(118), Freud discusses the costs of modern society to individual happiness and ends on a very pessimistic note. Freud here fails to consider change in the socio-economic structure of society. Strachey(319) in his *Coming Struggle for Power* makes some very pertinent remarks on this aspect of Freud's theories.

The structure of the normal adult personality is the resultant of repression by society of the manifestation of certain sexual and aggressive urges. The way in which this comes about will be treated shortly. But first we must see how the person is constituted according to the Freudian theory.

3. The Structure of the Normal Adult Personality

The Dynamic Aspects of the Self.—We are accustomed to think of ourselves as being conscious, unitary, active egos or persons. The self or ego as an agent seems to us a well-knit unified force. It is quite true that we really know better than this when we speak of having struggles with our consciences, or when we experience conflicts between two mutually opposed but equally attractive goals. The student wishes to marry his sweetheart and continue his medical studies, which he realizes will not be possible if he is to support a wife. The religious fanatic wishes to be totally pure but is constantly bothered with lascivious ideas. It is only the prick of the conscience which prevents most of us from performing many a venial sin or even a mortal sin and even so most of us err at this time or that. Without thoroughgoing analysis, the normal individual supposes that it is the self which brings about a reconciliation of such conflict situations. The ancient Greeks in dividing the psyche into various souls (the head soul, the heart soul, and the belly soul of Plato, and the rational, appetitive, and nutritive souls of Aristotle) met this problem and are to be considered crude forerunners of Freud. Indeed the Freudian division of the person into the ego, the superego, and the id has done little more than give the speculations of the ancients a scientific foundation and relate normal and abnormal mental phenomena. Since the fall of Greek culture many an artist and philosopher has realized the lack of unity in the soul. Goethe writes poetically, "*Zwei Seelen wohnen, ach in meiner Brust*" (Alas, two souls dwell within my breast), and the whole epic of Faust is concerned with the conflict between these two aspects of "human nature." More recently Herman Hesse(144) in his novel *Der Steppenwolf* points out that the supposed unity of the person is almost a pure fiction. The reason for our thinking of the self as unitary, active, and conscious is that theologists have represented this view and it is a very easy one to grasp. It simply passes the necessity of explanation again into the hands of the deity, whom we thank or perhaps sometimes curse for implant-

ing in us our own particular soul. The more keenly percipient have always questioned, as we shall see Freud does, the unity of the ego.

That the ego or self is not always unitary has been proven even more strikingly by the scientific investigation of the so-called abnormal personality. Psychiatrists and psychopathologists know that in psychotic (the truly insane) and psychoneurotic (the emotionally unbalanced and "nervous") individuals the ego undergoes extreme modification amounting at times to splitting into what must be its constituent parts. Such changes occur in the functional psychoses, schizophrenia and the manic-depressive psychosis, and even more strikingly in the well-attested cases of multiple and split personality. The older dichotomous class-theoretical approach simply relegated these cases to the province of the "abnormal." Now, a completely unitary ego could not undergo such changes. Our selves must be more complex than popular thinking allows. Consequently the Freudian analysis of the self into superego, ego, and id is not a radical departure in psychological thinking nor is its justification based on the Freudian theories and analyses alone. It is Freud's great service, however, to have related the idea of a multiple-structured self to the findings of psychopathology more systematically and scientifically than has ever been done before. But, as Freud himself admits, this task has only been started. That the person is not unitary has also been accepted by field theory, as we saw in the last chapter. Lewin agrees completely with Freud that the person is made up of systems (regions) which vary in their communicability and in their differentiation. Lewin, however, does not deal with the structure of the unconscious aspects of the person as Freud attempts to do.

The Ego.—The dynamical forces[1] resident in the normal adult personality are three. What we ordinarily call the self or the conscious intelligence is called by Freud the *ego*. The ego is the percipient part of the self, in contact with time, with space, with physical reality. The ego is selfish and directs behavior towards the maximal satisfaction of the individual's urges *consistent* with its knowledge of social and physical reality. It realizes, so to speak, the consequences of its own activities and when able establishes balance between the environment and the organism. It is not in itself particularly concerned with morality, with remorse, or with

[1] *Dynamical* to distinguish them from *topographical* and *economical*, which will be considered shortly.

feelings of guilt. Dynamically, however, it is in constant struggle with both the *id*, which is solely directed towards libidinal and aggressive satisfaction, and the *superego*, which is the voice of societal respectability imposed on the ego in the process of growing up and becoming civilized. What most of us think of as the self is the Freudian ego.

The Id.—The *id* is the main reservoir of both the life and the death instincts and consequently the source of most psychobiological energy. The id is concerned with the purely hedonistic strivings. It is timeless and hence without foresight of consequences. It is the blind driving mechanism, the chief motivating force behind our loves and our hates. Unless it were controlled by the family during the time of infantile development and by the combined forces of the ego and superego later in life, we should become neither adult nor socially civilized, but live in a timeless world of immediate sensory satisfaction or discomfort. The neonate is almost wholly id and the ego develops from it in the process of meeting physical reality.

The Superego.—The *superego* is the chief force making for the socialization of the individual. The superego develops last in the civilization process. It is particularly highly developed, perhaps unsafely highly developed, according to Freud, in the normal adult of the Western industrial civilization. Not everyone has it; the antisocial or criminal individual, the unconscionable bounder, are without it. Thus the Freudians account for the criminal type as an individual without superego. Alexander(7) has developed a theory of criminology which is most important, on the assumption that some individuals fail to develop the superego. It becomes almost synonymous with conscience, but it has the components of remorse and the feelings of guilt as well. It contains the conscious idea of what the individual has been taught by his family and society to expect from himself. It is the seat of what Freud has called the ego ideal. It is morally superior and when in life the dynamic situation is not such as to allow the individual to come up to its demands it seeks revenge and retribution. The superego extends as we shall see deep into the unconscious and many of the most serious conflicts between forces of superego, ego, and id remain unknown, at least immediately unknown to the subject. These three components are what Freud has called the dynamical aspects of the personality.

In the normal adult personality a harmonious balance is maintained between id, superego, and external reality by the ego. But this balance is constantly being upset, and our actual behavior, social, psychological, and to a large extent even physiological, is the resultant of the resolutions of these conflicts. The resolution occurs sometimes in the development of psychosis and sometimes in the development of genius, but most frequently in the restitution of normal equilibrium and personality growth. The resolution always occurs as the dynamics of the *total system* demand. This dynamical resolution of conflict is the *economical* aspect of behavior according to the Freudians. Thus even the psychoses fulfill an economical function, because under circumstances it is only by becoming psychotic that the individual as organism may be maintained at all. Perhaps the difference between id, ego, and superego may best be summarized by quoting Freud's own words on the purposes of the psychoanalysis: "The purpose of psychoanalysis is to strengthen the ego, to make it more independent of the super-ego, to enlarge the ego's field of perception, and to strengthen its organization so that it can appropriate new segments of the id. Where there is id, there shall be ego"(122).

The Topographical Aspects of the Self.—We come then to the topographical aspects of the psychoanalytical theory. Conflict between the ego, superego, and id may occur in the conscious, foreconscious, or unconscious regions of the psyche. Freud has done more than any modern to popularize the term unconscious. What does he mean by it?

The idea of the unconscious as a necessary supplement to the conscious is again not an original idea of Freud's. The idea of unconscious mental phenomena had been used by many speculative philosophers for almost two centuries before Freud's original researches. Leibnitz used it, as did E. von Hartmann, and shortly before Freud the concept played an integral part in Schopenhauer's philosophy, which through Nietzsche has influenced Freud's thinking considerably. That the psychological phenomena of temporary forgetting with subsequent recall, habituation, hypnosis, and multiple personality required the postulation of mental processes other than those of the stream of consciousness had been realized by most psychologists for some time. Freud's accomplishment here was similar to his achievement in setting up the theory of the dynamic aspects of the personality. He made the concept more

fruitful and workable by relating it to the findings both of himself and of others in psychopathology.

The Conscious, Foreconscious, Unconscious.—We all know what we mean by consciousness and by the *conscious* Freud means that segment of the mind which is concerned with immediate awareness. Most of us can summon into the conscious a great many other things, such as names, dates, arguments, reminiscences of past experience, and the like which are not constantly present. That segment of the mind where the readily recallable is to be located is called by Freud the *foreconscious*. But we all have experienced material which we cannot recall at will, but which may occur to us automatically and which we know is present in our minds through hypnosis and other experimental procedures. This segment of the mind is the Freudian *unconscious*. In it are to be found the ideas and wishes and strivings which were once in the conscious, but which have been forced into the unconscious. Also here are to be located many strivings and desires which originate from the energy of the id and have never been conscious. All behavior is the resultant of the dynamical conflicts between the forces of the id, the superego, and the ego. These conflicts and their resolution take place either in the conscious, the foreconscious, or the unconscious. The beginning student is sometimes apt to confuse the dynamical aspects of the personality with the topographical situations of the mind. While the ego forces are chiefly resident in the conscious and id forces chiefly resident in the unconscious, there is a considerable overlap. The superego, for instance, has conscious, unconscious, and foreconscious parts, and large segments of the ego lie in the foreconscious and the unconscious. This is quite clearly demonstrated in the following diagram from Healy, Bronner, and Bowers(134). (Fig. 65.) It is this discovery which has made Freud say that besides the dynamical problem in all human behavior

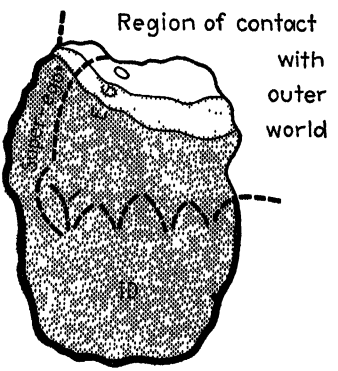


FIG. 65.—Sketch suggesting topographical relationship of *Cs*, *Ucs*; id, ego, and superego. Heavy shading = unconscious; light shading = foreconscious; unshaded = conscious. (*Redrawn, by permission, from Healy, Bronner and Bowers, The Structure and Meaning of Psycho-Analysis, New York, Alfred A. Knopf*, 1931.)

there is a topographical problem, *i.e.*, where in the mind does the dynamics of the conflict situation occur?

The Economical Aspects of Behavior.—We have already spoken briefly of the economical aspects of conflict resolution, which is the third great problem in all human behavior. By the *economical* aspects Freud means the dynamical redistribution of psychic energy resultant on the conflict situation. By this means equilibrium is established according to the whole existing structure of the personality. When Freud speaks of a psychotic episode as being economical he means that for the existing conflict situation it is only through such behavior that the individual may continue as an organism. It is well known that psychosis may prevent suicide and that the development of hysterical symptoms always resolves a conflict situation in an economical fashion.

4. The Freudian Mechanisms

Repression.—The resolution of dynamic conflict situations occurs through certain psychological mechanisms. The most important of these is *repression.* Repression is the process whereby ideas and reactions which are painful and unpleasant to the ego are excluded from consciousness into the unconscious. Repression is a function of the ego. The idea connected with certain impulsive tendencies being repressed, the psychobiological energy behind these ideas is allowed no outlet. It is this psychobiological energy which is utilized in symptom formation and in sublimation, of which we shall next speak.

Every individual must repress a great many ideas connected with instinctual urges (of love and hate) in order that he may become civilized at all. In some cases the organism is successful in this repression, and the repressed energy remains in the unconscious without further effect on the individual. But a considerable number of repressed ideas strive to regain consciousness. The forces of the ego and superego prevent this energy from gaining consciousness in its original form. That is to say, if an individual has repressed tabooed sexual or aggressive urges, the dynamics of the situations do not ordinarily allow him to become cognizant of these wishes as he first experienced them. But the psychobiological energy connected with these wishes is not discharged and it may only return to consciousness in some form that is economical to the total organism in that the old conflict does not so seriously upset the

more recently established dynamical equilibrium. Consequently the energy manifests itself to consciousness in some disguised or perverted form. Such disguises or perversions may be relatively unimportant, like dreams, or the slips of everyday life (forgetting, misspeaking, misplacing). When they are more serious, however, they become the afflictions of the hysteric, the delusions of the psychotic, the fears and obsessions of the psychoneurotic, and even the productions of the genius. Let us view each one in a little more detail.

Dream Theory.—Before Freud there was no theory of the dream which scientifically coordinated dreams with the manifestations of waking life and interpreted dreams as really meaningful. Most dreams were considered simply a mass of bizarre associations arising largely by chance from the immediate past experience and largely influenced by the sleeping position of the dreamer, the tensional state within his viscera, and chance disturbances (noises, changes in illumination, etc.) in his environment. To be sure dreams occasionally were supposed to be prophetic or even mystical revelations. Freud realized that these chance elements and segments of the immediate experience *did* appear in dreams, but maintained that the stuff of which dreams are made is only a relatively unimportant thing about them. He sought for the *meaning* of dreams in the formal relationships between these apparent inchoate and chaotic pictures. He found that most if not all dreams have a meaning which may be deciphered by the psychoanalytical technique. Dreams represent the symbolic fulfillment of repressed wishes, or the phantasy solution of conflicts with both conscious and unconscious elements. The material immediately given in the dream (*i.e.*, manifest content) is the vehicle by which repressed urges gain admission to the consciousness. The latent content is the repressed material which may be deciphered with the aid of the dreamer's free associations. Dreams represent a sort of safety valve through which repressed urges gain an outlet into the consciousness during sleep. The economical function however of the dream is that it protects sleep in that the conflicts are not allowed to wake the dreamer.

Psychopathology of Everyday Life.—Similarly, before Freud, although determinism was affirmed in the psychic sphere for the ordinary normal types of behavior, a great deal of behavior was relegated to the field of chance. Freud's most important methodological postulate is that every act has a definite cause and a definite

significance. Slips of the tongue and pen, temporary forgetting of names, dates, and situations, misplacing of objects, even accidents are to be regarded as manifestations of repressed psychobiological energy in disguised or perverted forms. In many ways this thesis of Freud's may be regarded as his most important methodological contribution and perhaps as his most original contribution. People do nothing simply by chance. Everything psychic is rigidly determined. Dreams and the everyday psychopathological behavior types have no great importance in personality genesis, because they act only as safety valves and do not create a radical restructurization of the personality.

Mental Disorder.—Freud's pioneer work was on the theory of the psychoneuroses. The physical symptoms of hysteria represent conversion of repressed urges. The energy originally connected with libidinal and aggressive activity is spent in the development of functional anesthesias and paralyses. These disorders are in every case economical because they allow an outlet for the energy in such a way that the symptoms may be reconciled with the conscious ideas of the ego and superego. Phobias represent *displacement* of original energy toward consciously acceptable objects. The psychoses represent extreme restructurization of the total personality in the interest of psychobiological economy. Freud and his followers have been able to formulate a fairly consistent theory even for these extremely bizarre reaction types.

Genius.—Finally, Freud has ventured an explanation of the baffling problem of what makes the genius, the man of art and the man of science. Regularly some of the repressed psychobiological energy is able to find outlet in a field of socially constructive activity by the mechanism known as sublimation. We must remember, however, that the experiments of Lewin and his school showed that substitute activity has adequate compensatory value only when the substituted act leads the individual to his personal goal. Thus sublimation is to be looked on not as a method of discharge of psychobiological urge, but a mechanism which makes discharge possible. The study of much biographical material has indicated the essential correctness of this viewpoint.

Psychoanalysis.—The Freudian theory finds considerable verification through the results of the psychoanalytic therapeutic method. Psychoneurotic individuals frequently and psychotic individuals less frequently are cured of their complaints by this technique. The

technique of the psychoanalysis creates a situation where a certain amount of the repressed material may return to consciousness in its original form and so the necessity of its manifestation as symptoms of worry, anxiety, phobias, delusions, hysterical physiological disorders, is removed. This is accomplished by recreating the emotional situation in which the repressions were originally developed. The individual is hence able finally to accept consciously his repressed urges and consequently the symptoms disappear.

We have thus covered the chief points in the Freudian theory of the normal adult personality. Freud has also developed a theory of personality genesis, which we must mention at least before we compare the Freudian theory with the field theory of personality genesis and criticize Freud's theory from the standpoint of this book.

5. The Theory of Psychosexual Genesis

Misconceptions of the Freudian Theory.—The most complex and involved part of the Freudian theory is concerned with the gradual development of the complex adult personality out of the much less complex personality of the infant at birth. We have already spoken of the fact that the adult develops his personality through meeting frustrations of the innate urges at the hands of society, chiefly at the hands of the family. These frustrations of the libidinal and aggressive tendencies lead to a repression of the wishes through which they made themselves felt, so that all of us carry with us a certain number of such frustrated and afterwards repressed urges. Hence despite the common and vulgar opinion that Freud advises free play to all instinctual urges, the truth is that he insists that a certain amount of repression is the necessary cost of attaining civilized adulthood. *Civilization is bought at the cost of repression.* Consequently the most "normal" adult must go through the infantile experiences leading to repression and consequently *all* children show what Freud has called infantile sexuality. This is important to stress because in many popular representations of the Freudian doctrine the idea is advanced that repression is a vicious thing always leading to neuroticism or that only occasional infants develop parental sexual fixations and that these may be and should be avoided by the parents. Perhaps the individuals who most seriously misinterpreted Freud on this point were the American behaviorists. Thus reasoning, Watson(344) gave, at least from the standpoint of the psychoanalyst, a completely false set of postulates concerning

child training when he advised cessation of all manifestations of affection between parent and child. According to Freud then all children show sexuality and all children undergo a certain amount of repression.

Next a few words concerning what Freud means by infantile sexuality. By libido Freud[1] means the sexual energy of the basic life instinct and it is consequently the force by which sexual desires become conscious wishes. Freud considers any behavior sexual which drives individuals into intimate psychological contact, where there is a tendency towards physical or bodily contact as well. It is important to emphasize this point because here again Freud has been widely misunderstood. Certain well-meaning apologists have attempted to make the Freudian doctrine more palatable to their own superegos and those of their readers and have consequently eviscerated the Freudian concept. With them libidinal tends to refer to the very general urge which brings people together at all, consequently making the libido a rather generalized gregarious instinct.[2] On the other hand certain of Freud's critics have interpreted the libido as exclusively concerned with the urge for normal coitus and have hence made Freud's assignation of a libidinal urge toward the parents to all children sound utterly ridiculous.[3] It must be made clear that not only the normal sexual act is libidinal in nature but all forms of sexual perversion and inversion, and also parent-child love relationships, as well as close friendships. The libido is that part of the life instinct concerned with driving individuals into close physical contact. (In narcissism or self-love this libidinal urge is turned back on the individual himself.) It must be also kept in mind that very normally certain components of the aggressive instinct are associated with the libidinal urges so that our love behavior is most frequently ambivalent. Perhaps it is wise to risk the chance of seeming tiresomely repetitious and point out again here that the urges most frequently repressed by society are not the only urges posited by Freud. Society creates civilization by frustrating only certain components of these basic forces.

[1] Freud has not always been so rigid in his definitions as we might wish. The reason for this is that in any healthy new science concepts are constantly changing. Freud occasionally uses libido to mean conscious concomitant of sex drive and libidinal the corresponding adjective.

[2] For instance, C. G. Jung(164).

[3] For instance, most of the early moral critics.

Hunger when frustrated might conceivably lead to personality changes as striking or even more striking than the frustration of sex urges. A human can somehow get along on little or no sex, but he simply starves on little or no food.

The Major Steps in Psychosexual Genesis.—The psychosexual development of the normal individual falls in three major stages. These are called the *infancy period*, the *latency period*, and the *pubertal period*. The infancy period, which lasts normally from birth to about five years, is the period where the child has not yet a fully differentiated ego and no superego at all. Consequently the infant is primarily controlled by wishes originating in the id. Infantile sexuality is primarily egocentric, *i.e.*, concerned with pleasure finding in the infant's own erogenous zones. By erogenous zones Freud means those parts of the anatomy where the epidermis is thin and which are consequently very easily stimulated by touch, giving rise to pleasurable sensations. The lips, oral cavity, the anal regions, the genitalia, and the nipples are here included. The infant first obtains libidinal satisfaction through nursing and the libido hence becomes first localized in the mouth. Shortly after this period, at three or four years, the child becomes interested libidinally in excreta and the libido becomes centered in the anal regions. This is the so-called anal period. At the end of the fourth or fifth year the child becomes interested in its genitalia. At this period infantile masturbation, as is well known to child psychologists, is almost universal.

With the development of the genital period the child's libidinal urges turn to outward objects completely for the first time. The ego has now been differentiated sufficiently that the child clearly distinguishes himself from others. It is at this period that the so-called Oedipus complex develops. The Oedipus complex is libidinal striving toward the parent of the opposite sex. This striving which later becomes unconscious, is normal in the child of this age who has already a great deal of sexual knowledge and indulges freely in sexual phantasy. Such urges are immediately subjected to frustration by the family and the next period or latency period is concerned with their complete repression with an attendant further development of the ego and the emergence of the superego. Before we treat of it, however, a few words on infantile sexuality in general. This part of the Freudian doctrine at the time of its first enunciation was thoroughly repellent to many people. Freud, however,

expected it to be, because the normal adult has repressed in himself most firmly his own infantile sex experiences. Today the vast majority of psychologists admit infantile sexuality, although there remains a certain lack of agreement as to the details concerning the course of its development. Infantile sexuality has been shown to exist by the indirect method of the psychoanalysis of adults and by the direct method of the observation of children. Most individuals undergoing an analysis are able to recall their infantile sex wishes. Such a demonstration alone would not be conclusive, because there is always the danger that the analyst could suggest the ideas to the patients. But when such evidence is coupled with many detailed behavior studies of children's motor expression, verbal reaction tendencies, dreams and phantasies, plus the verification of oral behavior in thumb sucking, etc., anal behavior in connection with training for personal cleanliness, and genital behavior in infantile masturbation, infantile sexuality may well be said to be a matter of fact.

The family frustrates the infantile sexual urges of the child from their earliest appearance, and this frustration gradually leads to the complete repression of infantile sexuality during the latency period (about five to twelve years). During the latency period there occurs the final differentiation of the ego and emergence of the superego. This occurs roughly as follows.[1] The original oral fixations of the child become frustrated when he is removed from the mother's breast. The anal fixations become frustrated through the process of bringing the infant to cleanliness. The genital fixations are finally broken by parental command and fears of disastrous consequences. During the later period the child is constantly indulging in Oedipus phantasies and begins to identify[2] himself with the parent of the opposite sex. This identification, however, is not without feelings of aggressiveness and jealousy toward this parent. Furthermore the parents are both looked on not only as sources of pleasure but as possible enemies. The child, having a libidinal attachment to the parent of the opposite sex, comes not only to envy but also to fear the parent of the same sex. This fear becomes so intense under certain circum-

[1] This part of the Freudian theory of psychosexual genesis is very complex and the following lines are of necessity a sketch rather than a detailed account.

[2] Identification is the Freudian mechanism in which the person molds his own ego after the fashion of one whom he has taken as a model, in this case the parent.

stances[1] that it leads to the complete repression of the Oedipus situation along with a resulting freedom from fear of the parent of the same sex. But the parental identification remains part of the personality, in fact becomes ancillary to the ego in the form of the superego. Thus the voice of the parent who brought the individual to personal cleanliness and broke him of his masturbation tendencies is the origin of the conscience and the superego. At about twelve years infant sexuality is completely repressed and the individual is for a brief period for the first time in his life not consciously sexual. But in the personality are left repressed the oral, anal, and early genital fixations. This sequence of events will seem quite fantastic to those hearing of it for the first time. How could the child identify himself with the parent and later mistake this identification for part of himself? One must remember that the child is not simply an inefficient and incomplete adult, but rather he varies from the adult in person structure and the reality dimension of his psychological surrounding field is less differentiated. Under these conditions such identification is not only possible but also likely.

The adolescent period may be dealt with more briefly. There is a revival of sexuality which gradually is allowed its normal outlet in heterosexual behavior. To be sure much of this later sex development does suffer frustration and also repression but the repression is never so strong as that of childhood. The individual socially is finally expected to marry and continue the race. Society has already received from him the renunciation necessary in order that he develop a superego and consequently act in a civilized manner.

Hence the "normal" personality is completed at about eighteen years. This does not mean, however, that all individuals successfully go through all of these stages. The libidinal stream may stop at any one of them. Under later frustration it may regress to any one of them. Thus Freud explains perverse forms of sexual behavior and the genesis of much psychotic and neurotic behavior. Finally oral and anal behavior of certain types which is admittedly erotic in its origin is socially quite allowable provided it does not become the sole source of sexual satisfaction.

[1] These circumstances are the development of the castration complex. The boy being jealous of the father fears that the father will castrate him for his desires on the mother. The girl, noting her lack of penis, believes she has been castrated by the mother.

Finally then, according to Freud, human behavior is resultant from the dynamics of the struggle between the life and the death instincts, working out their course under the environmental conditions of our contemporary social structure. Freud has been able to account for the development of the personality, the appearance of the genius and the psychotic, dreams, the mistakes of everyday life, and normal behavior tendencies in one all-embracing theory. This is the first time a theory has been advanced which will account for so much without the postulation of completely unobservable causal factors. Much has been said quite justifiably in criticism of Freud—in the next paragraphs we shall say more. But the Freudian system remains one of the most stupendous accomplishments of human genius.

6. Criticism of Freud

For our purposes the best way to criticize Freud will be to list the points of agreement and disagreement between a field theory and the Freudian system. Thus we shall be able to see how far the two theories coincide. Then from these basic agreements and disagreements we shall attempt to answer certain problems of general social-philosophical importance, which Freud himself raises in his recent writings.

Points of Agreement with Field Theory.—In the first place the Freudian and field-theoretical theories agree that:

1. All psychological events are determined. All psychological phenomena have not only a cause, but also a significance which may be discovered by investigating, according to Freud, the dynamics and topography of the personality structure and, according to the field theory, the structure of the environmental field and of the person.

2. One must postulate some force concept in order to account for any psychological activity, in Freud the basic urges, in field theory vectors.

3. Personality has its genesis in the way in which the individual reacts to barriers imposed by society on these forces.

4. The behavior traits shown by psychotics, neurotics, and geniuses are simply exaggerations or perversions of the "normal" behavior traits.

5. Psychology has no place for dichotomous or valuative concepts.

These points of agreement which include the other psychoanalytical schools besides that of Freud form the basis for the whole modern theory of personality genesis.

Points of Disagreement.—The field theory disagrees with the Freudian theory concerning:

1. The nature of the methodology which will uncover the laws of psychic determinism. As I pointed out in another connection, Freudian theory violates many of the criteria for field theory(38). My conclusions there were the following:

> Where then does Freud stand in the light of our ideas of what constitutes "good" and "bad" scientific theory? He represents a curious mixture of both types. He is strikingly a "good" theorist in his lack of dichotomies and in his lack of valuative concepts. On the other hand, the forces postulated by Freud to account for human behavior are largely determined by "class"; in place of vectorial forces he uses entelechies; behavior is locally determined; his analyses are in terms of historical-geographical regularities rather than in ahistorical-typical laws. His method shows indiscriminate use of both structural and functional analysis; his concepts are partly substantial, partly functional; he uses the hypothetico-deductive method but only inadequately; and he fails to distinguish between metaphysical "why" and scientific "how."

2. The nature of the force concept used by the theory. The Freudian urge is looked on, as we have seen, as determined through the concept "human nature" and hence has the properties of an entelechy and allows local determinism. The field theory says that the force motivating human behavior must be looked on as determined in the field and hence has the properties of a vector and allows no local determinism. The Freudian theory is probably an adequate description of the forces operative in the upper-bourgeois social field of contemporary Vienna.

3. The nature of the barriers imposed by society. Freud supposes these barriers to be chiefly biologically determined. The field theory claims that the barriers are functions of the total structure of the social field with reference to the individual. Thus the nature of the barriers imposed is determined by position in the social field and includes position in the national, religious, class, and other regions. We by no means claim that the barriers imposed are arbitrary or completely subject to manipulation. They do, however, vary with the historical and economic situation, and, as is implicit in Freud, we have a certain control over them.

These differences are of the utmost importance in determining the applicability of the newer theories of personality genesis to practical problems. The early hope of the Freudians, as expressed in innumerable places, was that through proper understanding of the analytical mechanisms a completely new psychotherapy, pedagogy, and criminology might be established. It is not to be denied that the Freudian discoveries have had definite and salutary effects on practice in these fields, but the effect has been little compared with what psychoanalysis originally promised. There is abroad a considerable pessimism concerning the possibility of using Freud's great discoveries except in the psychotherapy of certain forms of neurotic behavior. Freud himself seems to share this view. All his more recent writings have been pessimistic in tone.[1] Freud has always stressed the fact that civilization is bought at the cost of repression, and modern civilization requires such repression that it is scarcely worth the cost. Thus in *The Future of an Illusion*, he writes:

If we turn to those restrictions that only apply to certain classes of society, we encounter a state of things which is glaringly obvious and has always been recognized. It is to be expected that the neglected classes will grudge the favoured ones their privileges and that they will do everything in their power to rid themselves of their own surplus of privation. Where this is not possible a lasting measure of discontent will obtain within this culture, and this may lead to dangerous outbreaks. But if a culture has not got beyond the stage in which the satisfaction of one group of its members necessarily involves the suppression of another, perhaps the majority—and this is the case in all modern cultures—it is intelligible that these suppressed classes should develop an intense hostility to the culture; a culture, whose existence they make possible by their labour, but in whose resources they have too small a share. In such conditions one must not expect to find an internalization of the cultural prohibitions among the suppressed classes; indeed they are not even prepared to acknowledge these prohibitions, intent, as they are, on the destruction of the culture itself and perhaps even of the assumptions on which it rests. These classes are so manifestly hostile to culture that on that account the more latent hostility of the better provided social strata has been overlooked. It need not be said that a culture which leaves unsatisfied and drives to rebelliousness so large a number of its members neither has a prospect of continued existence, nor deserves it.

[1] *The Future of an Illusion*(117), *Civilization and Its Discontents*(118), *New Introductory Lectures*(122).

[From S. Freud, *The Future of an Illusion*, Liveright Publishing Company, New York, 1928, pp. 21–22.]

We believe that Freud in this pessimistic essay has refused to consider the possibility which is implicit in his own work of the manipulation of barriers. If we are right in supposing that the nature of the barriers is determined by the total structure of the social field, which is constantly undergoing change, the future may not be so dark as Freud believes.[1]

In general then Freud gives a more definite description of the drives and barriers which are instrumental in personality genesis, but one which is less scientific than that of the field theory. Either theory to be applied, however, would require a much more rational social organization than we have today. Until this is obtained, the personality may be considered as chiefly determined by the chance factors of birth and the uncontrolled fluctuations of the economic and social order. It is this, in the final analysis, which makes the prediction of individual psychological behavior such a difficult task.

7. Summary

In this chapter we have seen that:

1. The Freudian theory attempts a more exact definition of the drives which become frustrated and the mode of their frustration than does the field theory.

2. The Freudian theory considers two basic urges, the "life instinct" and the "death instinct." Behavior is the resultant of the dynamic conflicts between them.

3. The normal adult personality has three dynamic forces, id, ego, superego, which operate topographically in the unconscious, foreconscious, and conscious segments of the human mind. All behavior is economical in that it represents a creation of highest equilibrium between these dynamic forces possible in the organism as a psychobiological energy system.

4. Some of the mechanisms which bring about this economy are repression, dream work, conversion, and sublimation.

[1] Freud himself as Strachey(319) has pointed out is conditioned by his membership-character in the bourgeoisie of a capitalist culture. It is very questionable if the barriers and drives which operate in the field of the proletariat for instance are identical with those of the bourgeoisie. After all, Freud's patients from whom the theory was developed are largely upper-middle-class neurotics.

5. Freud has explained in his theory of psychosexual genesis the gradual development of both normal and abnormal personalities.

6. The field theory has certain points of agreement with the Freudian theory and certain points of disagreement. These disagreements are most important for certain problems of social philosophy.

BIBLIOGRAPHICAL NOTE

The definitive edition of Freud's German works is that issued by the *Internationaler psychoanalytischer Verlag.* An English translation of these is practically completed by Alex and James Strachey for the Hogarth Press, London and the Institute of Psychoanalysis.

The lay reader can profit by Freud's *Introductory Lectures*(115, 122). For the structure of the normal adult personality, Freud's most important work is *The Ego and the Id*(114). For dream theory see(121), for the psychopathology of everyday life(112), for theory of genius(120), for theory of psychosexual genesis(119).

Popular works in English on the Freudian system are those of Healy, Bronner, Bowers(134) and Hendrick(141). The author has written what he believes to be the most stringent methodological criticism of Freud(38).

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The role of the aggressive urges is discussed fully for the first time in K. Menninger, *Man against Himself*, Harcourt, Brace and Co., New York, 1938.

CHAPTER XVII

LEADERSHIP

1. The Problem of History versus the Leader

The sociological section of our work treated of the effects of changes in field structure on the behavior of the average individual, that is, the individual considered as a point-region within the social field. So far in the psychological section we have discussed the effect of the field structure on the individual considered as individual rather than as undifferentiated point-region. We now come to the discussion of the *apparent* changes wrought in the structure of the social field by leaders. We say "apparent" changes because, as we have always stressed, the individual is in the field, a part of the field, and can never be considered as outside the field or as working on it from outside. In final analysis the changes and restructurization of society attributed popularly to leaders may be explained only on the basis of automatic dynamical processes of the whole social field. Two considerations of a methodological nature, however, still allow us to speak with care of the leader as instigator of social change. These are interrelated. The first of these is that at the present time we are never completely able to characterize the social dynamics of the more complex situations. Only when a field-theoretical characterization is complete may we accurately predict the occurrences at all points within the field. Where this is not so we may under certain circumstances for convenience speak of leadership. Under these circumstances we must then secondly posit a certain amount of "freedom of choice" to the leader. To understand what this means we shall have to discuss the whole concept of the freedom of the will. For practical purposes freedom of the will may be supposed to exist under definite limitations. These limitations in themselves, however, are of very great importance. By the power of leadership we shall mean the ability of an individual by his own decisions to bring about field restructurization in situations where under existing knowledge the nature of these decisions cannot be predicted from the structure of the field. To this

definition must be added the reservations that the decision of the leader is dependent on the structure of his individual personality, and that the effectiveness of his choice is dependent on the structure of the total social field.

We have already seen that the dichotomies of heredity and environment, nature and nurture, instinct and intelligence become largely resolved through the application of the field-theoretical analysis. Let us see what a field-theoretical analysis has to say about history vs. the leader.

The Hero Theory.—From popular thinking and romantic biography one might gain the idea that all social change is brought about by the great men, by the leaders. To account for the chief events of the past few decades, it is easier to attribute change to Wilson, Lloyd George, Clemenceau, the Kaiser, Lenin, and others than to take into consideration all of the complex historical, economic, sociological, and psychological data involved. One may think of Wilson, the leader, "deciding" to enter the war on the side of the Allies, and thus preventing a stalemate, which most competent observers agree would probably have occurred without the entrance of the United States into the war. One concludes from this that the whole course of modern history was changed. Had we stayed out of the war, unquestionably the present map of Europe and the fortunes of the whole European culture would be radically changed. Similarly, one attributes the Reformation to "decisions" of Luther, the Russian Revolution to "decisions" of Lenin, America on wheels to Ford's "decision" to make a cheap automobile, or a large share of Hitler's success to Marconi's "decision" to utilize the Hertzian waves for purposes of communication.

Not only the simpler minds but very often the best minds of society have taken such a positive view of the contribution of the leader. Carlyle's(51) famous *Heroes, Hero Worship and the Heroic in History* affirms it decidedly. In fact the literature of the nineteenth century was almost wholly concerned with problems of the effects of the individual decisions of leaders. There are good psychological reasons why the simpler type of mind is inclined to attribute the course of history to the deeds of leaders. In order to think at all one must think in terms of symbols which are constructual abstractions. Constructs of a class-theoretical nature are much easier than those of a field-theoretical nature. The names and salient facts concerning the autobiography of individuals are more easy

of comprehension than the complex constructs of history, economics, anthropology, and social psychology. The individual at first always attributes his own behavior to the entelechy concept of his soul or personality and that of society to the entelechy concept of the leader.[1] In Nazi Germany this type of class-theoretical analysis has gone to fantastic extremes regarding the personality of Adolf Hitler. Hitler is looked on not only as the "savior of the German people," and "the guardian of Western culture against Bolshevik chaos," but as the greatest "racial scientist," the greatest "writer," and even as a sort of "second Christ." These characterizations, of course, are the elaborations of the politically vicious and are believed in by no really intelligent person. Such wholesale hero worship is regressive, for, as we shall see in the next section, the field structure of contemporary Germany represents a "regression" to a social order of previous times. Such attribution of extreme potency to a personality is related to the total structure of the social field.

Not only is the hero theory of leadership more easily comprehended by the untutored and simple mind than any other, but under certain types of field structure it is relatively nearer the truth. Under conditions of increasing degree of social freedom and expanding fluidity the individual as an individual is far more able to "change" the structure of the total field than under others. In other words even the individual's ability to be a leader depends on field structure.

The History Theory.—Opposed to the hero theory is the history theory. This views the leader as an individual who happens to be in the position to institute change when history is ready for change. Of the two theories this one is much more nearly correct from the standpoint of modern science. Research in economic progress, social-anthropological change, and the modern historical attack all indicate that the efficacy of leadership depends on the correctness of the historical situation. History abounds with personalities born before their time and recounts many individual tragedies of persons whose ideas were applied only long after they had been dead. The melancholic tone of Gray's "Elegy" can well be justified. From the standpoint of field theory the leader cannot possibly be looked on as standing outside the social field in the

[1] That is, if society be considered as a whole, the hero theory then considers the leader as playing the same role for society as the soul does for the individual.

fashion that the hero theory strictly interpreted demands. Nor on the other hand can his activity be looked on as solely conditioned by the dynamics of the environmental field. The mere fact that individual inventors, scientists, and theorists of all sorts have been "ahead" of their times indicates that the simple materialistic history theory, while more nearly adequate than the hero theory, is still in need of modification. The debate between the adherents of history and those of the hero is closely related to the debate between heredity and environment. I believe that the reader will immediately recognize that the hero theory relies on heredity as a chief causal factor while the advocates of history insist on the concept of an historically conditioned changing environment. Just as a field-theoretical and operational consideration of the antithesis between heredity and environment helped resolve this dichotomy, so a field-theoretical consideration of the role of the hero and the role of history in creating social change will clarify the problem.

The Gravitational Field as a Methodological Analogy.—It may help us to look again at a simpler type of problem which has been adequately treated in terms of field theory. Whenever an object falls in free space the structure of the gravitational field is changed and with any change in structure the values of vectors in the whole field change. Consequently when one is concentrating on the fall of a given object one might consider that an event locally determined changes the structure of the universe. Such an analysis is very superficial and typical of class-theoretical approach. The object is, so to speak, considered as outside the field and the changes then are considered to originate with it. From a more distant standpoint the object must be considered as within the field and its original movement itself the resultant of the distribution of energy in the field. Consequently what looked like local determination (leadership), at first, is seen on further analysis to be the resultant of field structure. Theoretically at least, the same situation obtains in the social-psychological field. The activity of the leader is the *resultant* of the changes in field structure and this activity only superficially changes the field. A critic might raise the following argument against this viewpoint. Whenever a conscious organism upsets the existing equilibrium of the gravitational field a new process is started which returns to equilibrium. One might ask why can we not look on leadership in the social field as equivalent to such an upset in the gravitational field. One would admit then that the leader is roughly

the equivalent of a chemical catalyzer, a setter-off of dynamic reaction. In answer to this it must be stressed that even for the gravitational field, the conscious organism is a *part* of the field. The most important finding of modern physical research has been the realization that the operator and experimenter is part of the experiment, *i.e.*, the field.[1] If he is part of the field for a problem of physics, he must be realized to be even more intimately connected with it for problems of social psychology. The leader is not to be looked on as causing the social change, nor even as a catalyzing agent in upsetting social equilibrium. Rather the leader is simply a part of the social field, albeit under considerations a point in it of very high potential. *The leader may not be separated from the group but he may be treated as a position of high potential within the field.* In other words the leader is to be ordered to a region of high potential of the lines of field force.

For many problems we are without adequate tools to characterize the whole field and hence for practical purposes we begin our consideration with the activity of the leader. When we do this, however, the reader should understand the limitations and mentally add, "The field conditions being as they are, the leader moves, decides, etc." Since for many problems we must start with the leader, practically we must attribute to him freedom of the will. Let us see what this means.

2. The Problem of Freedom of the Will

Biological Limitations of Freedom.—If we consider that the leader through choice or decision instigates activity which changes the existing structure of the social field, we might be accused of attributing to him freedom of the will, which would imply of course local determination of the activity of the individual, within the individual. The question of freedom of the will is a metaphysical one and some analysis of it is required at this point. This analysis should further clarify the field-theoretical analysis of the problem of leadership. If one takes the extreme class-theoretical position and supposes the individual controlled by an Aristotelian entelechy or soul which acts largely through its control on the will, one must posit a high degree of freedom. Such an answer is implicit in all strictly theological psychologies and, in so far as popular psy-

[1] *Cf.* Schroedinger(295) and Planck(273) on the importance of the Heisenberg indeterminacy relationship.

chology agrees with theological dogma, belief in freedom of the will is widespread. Our whole system of social organization and social justice and legal psychology affirms it. Yet no one ever held that the will was completely free, in the sense, for example, that the individual is always able to carry out his decisions. One may will *not* to die without positive result when sick; or to be handsome, intelligent, or charming when one is ugly, stupid, and a bore. Consequently freedom must be realized as having limitations imposed by biological and physiological mechanisms. To be sure modern psychopathological studies have shown that the "will to live," "to get well," is very important and may well be considered instrumental in occasional recoveries. But the fact remains quite clear that freedom of choice does not mean freedom of action, or, that freedom of the will does not mean that what is willed prevails. These biologically imposed restraints on freedom have another side which is very important. We have already seen that man is not completely free to do what he wills, and biologically likewise he is not free to will what he will. In other words the fact that man is biologically constituted as he is imposes very striking limitations on both his freedom of choice and his freedom of acting on that choice.

Social Limitations of Freedom.—Besides the biologically conditioned limitations on the will there are many social limitations. The socially restraining forces of the state (laws, institutions, mores, customs, and the like), limit the individual's freedom of action to an even greater extent perhaps than his biological constitution does.[1] He may will to become rich, an artist, a political leader, or a criminal and his freedom of action is limited by the structure of the social field. Not only that, but what he wills is largely determined in the social field through the structure of the groups in which he has membership-character. Hence it is already clear that socially as well as biologically man is not completely free either to *do* as he wills or to *will* what he will. The more knowledge we gain of social and biological science, the less can freedom of the will be said to have an important causal function in the events of world history. For methodological reasons most biological and social scientists have categorically denied any such force as freedom of the will. And they have been, theoretically at least, quite justified in so doing by the gradual growth of biological, psychological, and sociological

[1] A detailed description of these will be given in Part IV.

knowledge which has limited the apparent freedom of the will. By this we mean that with the advance of these sciences the proportion of "voluntary" human behavior which is unpredictable and therefore from an *operational* standpoint (this will be taken up in greater detail shortly) free, is steadily decreasing.

A Methodological Bias and Some Doubts.—We believe our methodological bias should be to a belief in complete determinism in terms of natural science. Certainly we cannot believe that the will is free in any supernatural or theological or spiritual sense. We must suppose that if we had a complete characterization of the biological, psychological, and sociological condition of an individual we would be able to predict his choices quite accurately. But nevertheless we can no longer *affirm* a complete biological and psychological determinism as positively as did the nineteenth-century philosophers. For this, two developments in modern science are responsible. The first of these is already here referred to above. It is the general insistence of late that the concepts of science be operationally defined. "A difference that makes no difference is no difference." For both the purposes of science and of everyday practice it makes no difference whether or not the will is free in the older metaphysical sense of the word. But it does make a difference whether or not the decision can be *predicted.* Whether or not an event is *determined* (predictable) is of the greatest importance. From the standpoint of operational analysis, determinism may only mean that we know the operations which lead to prediction. This apparent paradox must be resolved. From the standpoint of modern philosophy we may say that under certain circumstances freedom is subjected to definite limitations which make it inoperative, under other circumstances it must be affirmed. For all those cases where the individual choice made may be predicted scientifically, it is simply meaningless to speak of freedom of the will, implying as it does indeterminism. Whether or not it is free makes no difference. The organism behaves as it would if it were not free. In those cases however where we are without the possibility of prediction and control, so that for scientific purposes we cannot say what the outcome of choice will be, it is equally meaningless to *deny* freedom. (Since *operationally* there is no difference between "free" and unpredictable behavior.) For this reason from an operational standpoint we are justified in such cases in speaking of freedom.

There is another development in modern science which makes us hesitate in categorically denying freedom. We can no longer blindly suppose that future scientific advance will necessarily increase our ability to make prediction to the point where indeterminism vanishes. The realization that strict dynamic causality or perfect predictability does not exist in certain microphysical processes raises the doubt. Since certain such processes are undoubtedly involved in brain physiology, we may say that the chances are that we shall never be able to predict *every* "act of choice" of humans. Consequently by the operational criterion certain acts must be now looked on as "free," and perhaps some will always have to be looked on as free. But this freedom still has very great limitations imposed on it and there is small doubt but that these limitations will be greater as social psychology becomes a more exact science.

Ethical Freedom.—We believe it will be advisable to enlarge somewhat on the concept of freedom particularly with regard to certain ethical implications which are here involved. In most classical philosophies and popularly to this day freedom is taken to mean indeterminism. Popularly one says, I am free to act in either this or that way and what I choose to do depends on me, a conscious, active, unitary self. From a field-theoretical standpoint, such freedom is theoretically nonexistent, and practically as science grows and prediction ability increases "freedom" in the sense of unpredictable behavior decreases. This is the meaning of all our deliberations so far. Freedom in the sense of indeterminism is constantly decreasing. But for purposes of ethics one may speak of freedom as a *corollary* of determinism rather than its *antithesis*. For certainly humanity grows in its powers over nature with the growth of science and the abolition of ignorance. The freedom of the primitive to starve, to be attacked by all the forces of nature over which he had no control, to believe only in his limited mythologies and cosmologies is a poor thing compared with the richness which scientific determinism gives to modern life. For ethical purposes freedom may be redefined as being greatest where knowledge of determinism is greatest. For with the growth of determinism our goals become more attainable and our freedom in the practical sense increases, although in terms of indeterminism it has decreased. That is, if in one sense freedom decreases as more and more we realize we cannot *will* what we will, in another sense it increases as more and more we can *do* what we will. Our best chance of happiness lies in adapt-

ing ourselves to what we have been able to find out about natural law. Friction arises when we are attempting to run counter to natural law. From this standpoint freedom of the will means we are free when we will as nature wills. In other words ethical freedom and natural determinism are allies rather than enemies. This viewpoint regarding ethical freedom seems to me to be very sensible. That it is slow of adoption by men of science comes from lack of precise definition. In the strict scientific psychological sense, if we define determinism operationally freedom declines with the growth of natural science but *ethical* freedom in the sense defined above grows with it. If the concept of freedom were not so widely used in social science one might well limit the word to its ethical connotation.

Summary of the Discussion of Freedom.—In summary let us state once again the chief conclusions we have reached in our field-theoretical analysis of the concept "freedom of the will." There is no such thing as unlimited freedom of the will in the popular sense. We already know many of the biological, psychological, and sociological limitations on freedom. Where we are not able to give the conditions of determining a "choice" we are operationally forced to posit freedom of choice. We have every reason to believe that increase in knowledge of the biological and social sciences will further curtail the domain in which "freedom of choice" in the scientific psychological sense operates, although we do *not* have the absolute scientific assurance that this domain will ever vanish completely. We may be equally sure that further knowledge of natural law will increase our *ethical* freedom as we defined it above.[1]

3. The Leader

Now we shall return to the problem of the leader. As we indicated above we may order the leader to a region of high potential in the social field. The lines of cohesive field force center in the position of the leader. Thus when the field undergoes restructurization, change in his position creates a serious realignment of all forces in the social field. Actually, of course, locomotion of the leader

[1] Such widely separated individuals as the seventeenth-century philosopher Spinoza(313), the nineteenth-century socialist Engels(96), and the twentieth-century psychologist Wheeler(354) have stressed the compatibility of determinism and ethical freedom. Unfortunately they have not always distinguished it clearly from psychological freedom as we use the word.

is the resultant of existing forces in the social field, but very often one cannot, as we have pointed out above, characterize these sufficiently to predict his choice. Consequently we begin with it. *The most important problem in leadership is whether or not the locomotion instituted by the leader will be followed by a restructurization of the field in the direction of the leadership.* This of course depends on whether the leader actually represents a region of high potential in the social field.

Dependence of the Leader on Field Structure.—The freedom of the leader to change the structure of the field and the efficacy of his leadership depend on the existing structure of the total social field. This is not only true of the leadership of large groups (political leadership) but it is also true of all relationships between individuals where a locomotion instigated by an individual is followed by locomotions of the group. Any existing field structure has in it limitations on the degree of freedom of choice of the leader. We have already seen an example of this in our discussion of mob behavior. The leader is important in creating a situation where the group becomes a mob, but once the mob is started toward the goal the leader is powerless to stop it. Actually, of course, he does not usually attempt to do so. His own goals are determined in the social field.

The descriptive mechanism of suggestion is also descriptive of leadership while that of imitation describes the behavior of the group. Freud(113) has shown a consistent causal relationship between hypnosis, being in love, and leadership in the popular sense of the word. In deep hypnosis we have perhaps the most potent form of leadership known. To all intents and purposes the conscious mind of the hypnotized subject is replaced by that of the hypnotizer. But even here there is a decided limitation on the freedom of the leader to activate response by suggestion. It is well known that the person hypnotized may make reservations before entering the stage of hypnosis and that suggestions bordering on the person's idea of the indelicate, etc., will not be fulfilled.[1] In other words certain barriers to behavior existent for the hypnotized individual continue existent during hypnosis. During hypnosis the hypnotist becomes a region of very high potential, which enables him to control

[1] *Cf.* Young(371). In careful experiments Young shows that autosuggestion, *i.e.*, suggestion by the hypnotized individual, is of greatest importance in limiting the powers of the hypnotist. Wheeler(351) gives an interesting interpretation on this basis.

many of the locomotions of the individual hypnotized. However, even during the hypnotic séance the individual field still has barriers which the hypnotist cannot remove in suggesting locomotion into such blocked regions of the social field. The deeper the hypnosis the greater the control of the hypnotist over the individual. To predict this control, however, one must know the existing situation of the individual's fields, as the experiments of Young(371) have indicated.

The status of being in love is closely related to hypnosis except that the individual's consciousness is not replaced by that of the leader. The suggestions of the loved one are usually carried out, but not all suggestions by any means. Furthermore the suggestibility is mutual so that only in a limited sense may one speak here of leadership. However, one of the parties tends to assume this role and with this the degree of freedom of social locomotion of the other is cut down. But the leader again here has his own freedom of social locomotion limited in the field situation.

The transition to leadership of larger bodies is a continuous one.[1] Mobs, audiences, crowds, all show the same superficial control by the leader but the power of leadership depends on field structure. Several examples of political leadership should make this clear.

An Example of Change of Potency of Leadership.—Let us consider the leadership of President Hoover during the early days of the present depression. If there was ever a man who had what the standard textbooks on social psychology list as the prerequisites of leadership it was Hoover. He had the appearance of the leader, the experience in handling men, the autocratic manner. That he had popular prestige is indicated by his overwhelming victory over the very strong candidacy of Governor Smith. He was elected during a period of increasing freedom of locomotion and permeability of class barriers where internal class struggle was at a low ebb and there was no international conflict situation or war. The situation at the time of his election has already been indicated field-dynamically in Chap. VII. During the first few months of Hoover's presidency his leadership might well be called successful. With the stock market crash of October-November, 1929, a radical restructurization of the national field occurred. What was the effect of this on Hoover's leadership?

[1] Nearly all earlier writers like LeBon(185), Tarde(327), and McDougall(217) make something of suggestibility and leadership.

The general fall in the degree of freedom of social locomotion from 1930 to the present has already been field-dynamically described in Chap. VII. In general the tendency to increase the class struggle with decreased freedom of social locomotion and decreased permeability of class barriers plus an increase of internal barriers in all classes has been clearly enough indicated. The social location of Hoover as a leader is clearly in the extreme upper-bourgeois region of the national field. The tensional situation however was approaching one of class conflict.[1] While Hoover retained his leadership of the upper-bourgeois region large segments of the population were under internal tension and at the time of the 1932 election the leadership of Hoover was repudiated by the majority of the American people. By 1932 national membership-character had decreased in potency, class membership-character increased in potency, from the earlier situation. Hoover as an individual has changed but little, but his potency as a leader is radically reduced. His opponent F. D. Roosevelt is to be ordered to a region of higher potency in 1932, because he was more cognizant of the change in field structure. The result is well known. Roosevelt was elected by a landslide. Roosevelt's own class membership-character is that of the upper bourgeoisie. Whether or not his leadership will continue to be successful again depends on field conditions. There are already signs in 1935 that his popularity is slipping; in other words, that he is losing potency as a leader, because of the failure of the social field to return to a condition of expanding fluidity.

In brief, the Hoover leadership failed because of radical restructurization of the social field between 1929–1932. From this a general law of leadership may be set up. *Leadership of a large group is impossible if the subgroups within the large group are in conflict. Under such conditions the leader must represent the wishes of one of the subgroups. In the language of social dynamics his potency as a leader will depend on the total structure of the field.*

When the class struggle increases no leader is able to be successful on the basis of national membership-character alone. Fascism arises, as we shall see in Chap. XIX, when the potency of national membership-character is still great enough to prevent revolution, but where the internal conflict situation is intense. Then leadership which has been predominantly upper bourgeois is no longer able to

[1] Interesting in this connection is Robinson's analysis of the changing vote tendency between 1928–1932(286).

gain popular support in a liberal democracy and liberal democracy is replaced by a fascist dictatorship. If, however, the bourgeois leadership completely collapses and a successful proletarian revolution ensues a communist dictatorship is set up.

The Dictator as Leader.—The leadership of two types of dictator is important in this connection. In the succeeding political science section we shall analyze fascism and communism in more detail. For the present let us consider the reasons for the success first of Hitler's and then of Stalin's leadership. Hitler has had very great immediate success in the unification of the conflicting subgroups which made German politics from 1925–1932 such a complex conflict situation. The dynamic situation in Germany in 1929 was very similar to that in the United States today except that the potency of the national membership-character was greater. Using the patriotism of the Germans, which was enhanced by the widespread resentment of the Treaty of Versailles, Hitler was able to turn a proletarian revolutionary situation into a victory for a bourgeois dictatorship. But the essence of dictatorship consists in suppressing by force the class conflicts within a national social field. This Hitler was successful in accomplishing although there is small reason for believing his success will be a very lasting one unless prosperity returns to Germany.

Similarly the Russian Revolution was accomplished when nationalism was at a low ebb owing to the severity of military defeat, *plus*, which is very important, a great disintegration in the bourgeois segment of the national field. The success of the communist dictatorship also rests on the suppression by force of the internal class conflicts. From the standpoint of field theory the fact that the communist regime has lasted for nearly twenty years indicates that it has been successful in resolving these class conflicts and in bringing relative prosperity to the Russian people. When there is internal conflict in a group, leadership may be maintained only by forceful suppression of one of the conflicting subgroups. Both Hitler and Stalin recognize this need of suppression. Both also realize that the power of the leader is *limited* by field structure. This is attested in countless passages of both Stalin's *Leninism*(314) and Hitler's autobiography, *My Battle*(148).

Not only is the success of the leadership dependent on field structure but the freedom of the leader to instigate change and his power of leadership vary likewise with field structure. As we have

already remarked, the leader is more free to suggest in fields of high degree of freedom of social locomotion but less sure of being followed. The power of leadership on the other hand is greatly enhanced but its freedom limited in fields of low degree of freedom of locomotion. Hoover was free to suggest much, but he was not followed in his suggestions. Hitler could not possibly become antimilitaristic and pro-semitic and retain his leadership. Stalin, and he realizes this, could not succeed in turning Russia back into a capitalistic country. To believe to the contrary is simply to fall back into belief in local determinism and the hero theory of leadership.

4. Field-dynamical Laws of Leadership

From the above considerations we may give certain laws of successful leadership from the field-theoretical standpoint. Our examples will be chiefly from the field of political leadership. We shall see also that other groups follow the same laws with regard to leadership, but that this is less obvious because changes in field structure occur less rapidly and frequently in them. In fact the extreme rapidity of field restructurization of the national and class fields at the present time is probably the chief reason for our being able to set up a field theory of social behavior at all.

A. The successful leader must have membership-character in the group he is attempting to lead. In order that a point may acquire high potential within a region it must be ordered to the region. In popular language this means that an individual must belong to the group which he attempts to lead. All organized groups with codified regulations stipulate that officers have membership in the group. So the officers of the United States must have citizenship, the officers of corporations must own stock, the officers of clubs, membership in the clubs, etc. Membership-character in the social-psychological sense, however, means more than this, as we have seen throughout this work. It means that the individual has the pattern of attitudes and reaction tendencies common to the group. Thus failure of leadership will occur when the individual is only nominally a leader. There are situations where this law is *apparently* contradicted. In fluid fields, where the leader is ordered to the topological mean of several groups, he may exert leadership in groups other than that having the most potent membership-character for him. But this leadership will remain successful

only when there is no contradiction between membership in the group which is led and the other groups in which the individual has membership-character. Thus certain labor leaders have proletarian membership-character of only limited potency and certainly many social workers have practically no common membership-character with the groups they attempt to lead. In such cases where leadership is successful the leadership is on the basis of common membership-character in a *larger* group, for instance the same *nation* or the same *church*. The leadership is possible only when national or church membership-character has greater sociological potency than class membership-character. Furthermore this leadership ends immediately when the leader retains membership-character in a group which comes into conflict with a group he is trying to lead. Of course, here, as we have pointed out above, the leadership may be retained superficially when the group is constrained and placed under force as in the fascist dictatorships. Competent observers are in agreement that Hitler retains leadership for instance only through force of arms, although his original success was on the basis of high potency of national membership-character.

Social workers, as is well known, really succeed in gaining data and rapport with their clients as they gain sympathy, *i.e.*, common membership-character with them. Undoubtedly much of the friction and poor functioning of the contemporary relief setup in the United States are due to lack of common membership-character between social worker and client. The social worker retaining more potent membership-character as he does in the petty bourgeois or bourgeois region cannot side with the proletarians in a conflict situation.

Similarly the leaders of the American Federation of Labor or the British Labour Party often have more membership-character in common with the bourgeoisie than with the proletariat. When national membership-character is more potent than class membership-character this situation is possible for the leader. Thus the leadership of the so-called right wing (conservatives and believers in the existing order) has been more successful than that of the left wing (socialists and communists) until very recently. Recent events, however, indicate that the class-membership character is growing in potency. Consequently William Green, the conservative who has easily controlled the A. F. of L. in the past, has been very much embarrassed in the convention of 1935. Likewise the failure

of the social democratic[1] parties all over Central Europe has been to no small extent due to the mixed membership-character of these leaders. Even in the college situation the successful teacher must have some common membership-character with his students.

In social fields where the inner dynamics allow the simultaneous existence of many small groups within the common membership-character of a potent large group, the successful leader has membership-character in as many of these subgroups as possible. Under conditions of liberal democracy the successful political leader utilizes this common membership-character to great advantage. Thus Chapin(58) in a very interesting study shows that "leadership in the community is vested in an inner circle common to several active groups." Such a criterion for leadership is only possible under the conditions which Chapin investigated, however, which are those of a field of expanding fluidity in times of economic prosperity.

B. The leader must represent a region of high potential in the social field. This is what we usually mean by prestige of the leader. What physical or other characteristics the leader must have depend, as we shall see, on the structure of the group which he is trying to lead. The leader is successful through having high potential and membership-character. Having high potential means that he symbolizes psychologically the ideals of all the members of the group. He must be of the group in his ideals, aims, and attitudes but the group must view him as superior. Freud(113) has made a very keen analysis of this situation by pointing out that the attitude toward the leader has a certain ambivalence. The followers love him, identify their ego ideals[2] with him, identify themselves as his common love objects, and at the same time fear and hate him. The leader must be of the people but he must be above them, so to speak. Analysis of Hitler's success in this respect is illuminating. Hitler had always had extremely potent national membership-character, and identified himself with the common people. He gives a picture of aloofness in his personal life. Similarly Stalin is Comrade Stalin but keeps himself segregated in the Kremlin.

C. The leader must realize the existing field structure. Only when his leadership falls in with this is he successful. This has been indicated by the success of Roosevelt over Hoover and Hitler over Brüning. The power of the leader depends on the field structure.

[1] Socialist Party in the United States.

[2] Ego ideal is roughly equivalent to superego; *cf.* Chap. XVI.

In labor leadership the same general rules hold. The attempts at leadership of the revolutionary left wing leaders has been notoriously unsuccessful in the United States up to the present time. Leaders of the conservative sort like Green and Woll have better fitted the structure of the social field with its high potency of national membership-character. Unless, however, prosperity and industrial expansion or war enhance the present potency of national membership-character and lessen that of class membership-character, the revolutionary left wing union leaders will soon have their innings.

D. The really successful leader realizes the long-time trends in field structure. Here perhaps a word is necessary concerning the evaluative concept success. If success be defined simply as immediate power then the rule does not hold. By success in this connection we mean long-time success in the sense that the leader finally sees accepted the principles for which he stands. In this meaning, of all modern political leaders Lenin was certainly the greatest. Lenin had only few years of political glory but those were great indeed. At the present time those individuals who hold the long-time view of changes in field structures can scarcely hope for immediate success. On the other hand opportunism in political leadership today will not possibly succeed over a long period. As the field structure changes the type of leader who is successful is changing with it. This is quite obvious in political leadership with the rise of dictators and the decline in liberalism. It is also to be noticed in the rise of a new type of labor leader. Even on the college campus as the depression deepens the typical leader of the twenties is disappearing. The new leader is more intellectually awake, takes a larger interest in affairs outside the university. Here again, however, this change in leadership is not automatic but is correlated with changes in the social field affecting all the student body.

E. Leadership increases in potency at the cost of decrease in freedom of leadership. The leader is more potent in the more highly organized group or the more highly structured field. The barriers which decrease freedom of the individuals also decrease freedom of the leader. The modern political dictator is the most potent leader imaginable, but, as Hitler and Stalin realized, his freedom of decision is more limited than it would be in a field of greater degree of freedom of social locomotion. When the leader gains complete control over the social field the social field has at the same time complete

control over him. Thus Mussolini must undoubtedly realize the rashness of his present Ethiopian adventure, but the inner dynamics of the situation forces him into it.

5. The Characteristics of the Leader

The successful leader acts in accordance with the field-dynamical laws just given. Such are the *only* generalizations concerning leadership which may be given. Leaders do not constitute a *class* with set characteristics independent of field structure any more than Americans or proletarians do. The tendency of much research on leadership is toward class-theoretical specification of leadership qualities. It is scarcely necessary to dwell at great length on the inadequacy of this mode of attack. The prevalence of such criteria in the literature necessitates a brief discussion of these alleged characteristics however.

Questions in the general form of "Should the leader be tall or short, thin or fat, of keen intelligence or only mediocre, honest or essentially dishonest, set in his mode of thinking or relatively changeable?"[1] are all meaningless unless they are asked for a definite field structure. Then they may be given a sort of meaning. But many researches attempt to generalize results from very particular situations to leadership in general.

Thus upon finding that executives in business concerns and labor unions tend to be larger and heavier than the average employee, one might conclude that the leader *qua* leader had certain physical characteristics. The complete invalidity of this type of generalization is indicated by the statures of Napoleon, Mussolini, Hitler, and Lenin, all of them shortish men. Furthermore such correlations often confuse cause and effect. That railroad executives are fatter than station agents may after all well be a spurious causal correlation resultant from difference in diet. From such studies we may only generalize when we know the total field structure. That foremen are larger than the laborers whose work they supervise is quite understandable under conditions of industrial foremanship, but must not be generalized to apply to leadership in general, which does not exist.

Similarly, in discussing the mental traits of leaders Cooley(66) generalizes that leaders are significant individualistically, have a

[1] *Cf.* the standard texts of social psychology for reference to many such class-theoretical investigations.

breadth of sympathy, and are possessed of a militant gloating "I." Again, these criteria fall down most miserably when one compares leadership under feudalism, capitalism, and socialism. While Herr Hitler's public addresses and writings are full of the militant, gloating "I," Comrade Stalin's are almost completely free from reference to the same.

Similarly Chapin(58) sets up the hypothesis: "Leadership in the community is vested in an inner circle common to several active groups." This generalization may hold only for cases where these groups themselves do not fall into a conflict situation, as we saw above. It would be quite possible to give many more examples of class-theoretical researches on leadership. I believe those given sufficiently illustrate the shortcomings of this method.

Where groups are relatively stable and where the underlying field structure is undergoing little change it may still be possible to set up characteristics of the leader. But the fields of leadership where this is true are so few today that the attempt is scarcely worth the effort. The industrial and cultural crisis is finally making itself felt even on the college campus. As indicated above the leader of yesterday had certain definite characteristics based on a "social" subgroup in a national field of expanding fluidity. He was large, handsome, inclined to be an athlete, intelligent but not bookwormish, etc. This situation is already undergoing change in many educational institutions. The reason is not that leadership as a class concept is undergoing transformation but rather that the underlying structure of the social field is changing.

It would be absurd to deny that two factors of a semibiological nature are important in leadership, intelligence and psychosexual appeal. Of these, probably the more important is intelligence. The leader has always perceived (if this were a popular treatise one might say intuitively sensed) the alignment of existing field forces. As we indicated above failure to do so must lead to unsuccessful leadership. Furthermore his intelligence must be active rather than contemplative, but this is no discovery, rather a platitude. In addition personal charm in appearance, "sex appeal," is important in any field. Freud makes it basic to a theory of leadership which has much to recommend it. But it alone can never carry the individual's prestige as a leader through radical restructurization of the underlying field dynamics. Our final decision must be that leadership is a quality of great variability and the only generaliza-

tions we can make concerning it are in terms of the language of constructs.

6. Summary

In this chapter we have seen that:

1. The problem of history versus the leader like the dichotomies of heredity-environment and structure-function may be clarified by the field-theoretical mode of attack. The structure of the field determines all individual activity theoretically. In many cases however we cannot adequately characterize this. In these cases we speak of leadership.

2. This viewpoint assigns freedom to the will of the leader. Such assignation is a practical necessity based on the modern idea of operational analysis in science. The field imposes great biological and social limitations on this freedom.

3. The leader is to be ordered to a position of high potential in the social field at which the lines of field force center. The power and freedom of leadership depend on field structure.

4. Certain field-dynamical laws of leadership are the only generalities concerning leadership which are valid.

5. All other generalities concerning leadership hold only for given field structures.

Bibliographical Note

The viewpoint which sees the hero as basic is most typically that of Carlyle's *Hero, Hero Worship and the Heroic in History*(51). Opposed to it the history theory, that history makes the leader, is supported by the works of the social and historical anthropologists; *cf.* Sumner and Keller(325). The resolution of this antithesis in terms of a field theory is given here for the first time. The viewpoint is very close to that of the dialectical materialists; *cf.* Engels(96, 97), and more popularly Hook(152).

The problem of freedom of the will is one of the oldest in metaphysics; *cf.* all standard works on general philosophy and the history of the same. The viewpoint presented here is somewhat original in its insistence on operational definition. The viewpoint that ethical freedom and determinism are not antithetical has been expressed often; *cf.* most recently Wheeler(355).

Most of the standard texts in social psychology handle the problem of leadership. See Young(369, 370) for many examples of the class-theoretical approach in this field.

PART IV

POLITICAL SCIENCE SECTION

CHAPTER XVIII

THE STATE

1. State, Government, Administration

As the concepts of race, nation, and state are often confused and even used interchangeably,[1] so state, government, and administration stand in need of clarification. We previously saw that by the state we should mean the whole paraphernalia through which the *status quo* of the nation is maintained or through which the governmental structure of the national social field is changed. Thus the state includes all the institutions and governmental agencies concerned with such control. In the United States these range from the Constitution to the police courts of rural villages. The state so defined includes institutions of long years' standing. By government we shall mean all the agencies of state control as they function today through individuals. Thus both the Constitution and the Supreme Court in the United States are parts of the state, while the Supreme Court judges are members of the government. The government has, as is well known, three chief branches, the legislative, judicial, and administrative. Consequently by the administration we shall mean the governmental employees from the President down who serve as leaders in administering the state apparatus.

We shall see, however, that administrative leadership is subject to the same restrictions and controlled by the same laws as any leadership.

2. Popular Idea of the State

The most widespread popular idea of the state is that it is a cooperative institution maintained to safeguard and promote the general welfare of the people. We speak loosely of *our* state, *our* government, *our* chosen representatives in Congress (to whom we even occasionally write requests), and when all is well with us, we view it as the best, most enlightened, and most sensible form of government. This view that the state is the sum total of governmental agencies administered in such a way as to create the maximal

[1] *Cf.* Chap. VII.

opportunities for the whole people is accepted not only by the populace at large, but by many economists and political scientists as well. It fails to take into adequate consideration, however, the following questions. "Why must there be a state?" "Where did the state originate?" "Why under many circumstances does the state cease to function in accordance with this ideal?" "What is the situation when the state (in this sense government) is overthrown?" In brief the origin of the state, the necessity for the state, and the various types of states are but inadequately accounted for in our popular ideas about it. In this chapter we shall first see the inadequacies of defining the "state as a cooperative institution maintained to safeguard and promote the welfare of the people" and attempt to see just how the state functions field-dynamically. It will introduce us to the chapters which follow, where various existing forms of state organization are described and some analysis of their function given. From the mere admission of various forms of state it should be quite obvious that there is no single ideal "state" or form of government applicable to all times, all peoples, all economic situations. This has always been realized, but quite usually attributed to distinctions based on the methodological postulates of class theory. When there is a sufficiently high potency of national membership-character the existing form of state is found perfect and absolutely suited to the national character. Thus the American: "Dictatorships are good enough for the Russians, Germans, and Italians, but the American would never put up with one." Similarly, most of the "right-thinking" Germans from 1923 to 1929 believed: "The Italians may put up with a tyrant like Mussolini, but to us Hitler is simply a mountebank, comical relief in the present difficult situation which *German* love of liberty, industriousness, and specific *Kultur* will solve." In the light of such changes the present amusement of many of our "right-thinking" compatriots over the antics of the late Huey Long, Father Coughlin, and Upton Sinclair approaches the tragic.[1]

Basis for Popular Theory of the State.—The cooperation idea of the state is founded on the theory of the social contract and follows naturally from it.[2] The original state of humanity was supposed

[1] *Cf.* Sinclair Lewis' novel *It Can't Happen Here*(208).

[2] The discussion which follows on the state theory is admitted to be very popular and sketchy. The writer realizes that there are many nuances of the social contract theory of society. Furthermore we have no space to treat of

to be one of independent savagery and of raw physical struggle for existence. Although family units and perhaps small tribal units existed without a state, a state became necessary in the first higher organizations. Thus through the "social contract" the individual relinquished a certain raw nature-freedom in return for the advantages of group enterprise.[1] The "social contract" having been agreed upon, certain individuals still hankered after the old freedom and the state became necessary to exert its coercive force on these. Thus because of "predatory" instincts or natural human acquisitiveness and selfishness the state was necessary to protect the orderly from the disorderly. Furthermore it was necessary under the circumstances for the state to protect individuals from their own *innate* laziness. The state then arose, when the social contract permitted individuals the advantages of cooperative enterprise, in order to protect them from "human" frailty. Readers of this should see without further comment the prevalence of class-theoretical considerations in this analysis. In the first place, the alleged independent savagery period for humans probably never existed. Kunkel(177) in a paper with keen insights realizes that groups probably evolved from groups through the whole evolutionary process. That humans existed in groups at the time when they could first be called humans was probably their strongest asset in the primitive struggle for existence. Protection against enemies was afforded and the essential conditions for speech acquisition laid down. As the epoch-making researches of Koehler(173) and Yerkes(368) have shown, some social life exists in the infrahumans, particularly the anthropoids, so that the apes show the existence of social relationships.

The contract theory itself is predominantly atomistic-mechanistic. The earth is made up of molecules, man of cells, and society of men. How are they bound into society? By the social contract, *i.e.*, by coming together and making agreements. The theory supposes always certain traits of original "human nature" which must be restrained in order that cooperation be successful. These traits are to be sure often contradictory. Humans are by nature both

organismic theories of the state, such as Hegel's. However, genotypically and field-dynamically these various shades of opinion may be reduced to basic patterns. The bibliographical note gives references to other works at a more advanced level on the nature of the state.

[1] *Cf.* Keller(169).

selfishly acquisitive and lazy. Throughout the past section we saw the fallacy of considering human nature fixed. Thus in final analysis the popular theory of the state argues for its necessity from a consideration of the alleged traits of human nature. From the standpoint of field theory the shortcomings of human nature are more likely to be derivable from the structure of the state. It is only on such a basis that the contemporary behavior of Germans, who were once humane and enlightened, can possibly be understood. And the undoubted attainments of the Russian proletariat since 1917 seems a very adequate argument against the allegation that the Czarist regime was necessary to control the stupidity, laziness, and animal appetites of the Russian peasant. The theory of the origin of the state and the popular views of its functions are hence completely inadequate. We shall return to the problem of origin after a further consideration of the difficulties of the popular theory of the state.

Criticism of Popular Theory.—We have already answered implicitly the question "Why is the state necessary?" from the standpoint of the popular view. Humans have attributed to them certain characteristics as belonging to "human nature." These characteristics are incompatible with cooperative undertaking. Consequently the state is necessary to deal with human laziness and human aggressiveness. In its simplest form the theory supposes that all humans are both lazy and aggressive. Even in its more refined forms it cannot be said to be scientific. Original nature as a necessary reason for state control of all the people is then replaced by the necessity of protecting society at large from certain criminal or otherwise perverse elements or protecting the weaker members of society from the stronger, etc. Here again "criminality" is dependent on the existing property mores which in themselves are a function of the organization and do not exist independently of it. Consequently we see that the popular ideas of the necessity for the state are inadequate.

That many times in history the social contract has been "violated" by the government so that the general welfare of the people was not furthered is quite obvious. This general violation is again attributed to the avarice and (if it ends in their downfall) to the stupidity of the leaders. The social contract is not lived up to and much suffering ensues. But the question of the forces generating violation of this contract is generally only inadequately understood and the cause of such misgovernment is laid to locally determined

selfishness of the leaders. In turn the overthrow of the state and the setting up of new contracts are attributed to superiority of the leadership of the victorious group. Consequently the self-generating and inner dynamical forces of social and political reconstruction have scarcely been admitted by the exponents of the cooperation theory. In brief, the failure of the state to ensure adequate cooperation has in general been attributed to the "badness," "corruptness," "selfishness" of the governing members and changes in state form to the "decision" of the governed to change things. From the standpoint of field theory such a description is of course outright mythology.

3. Field-dynamical Definition of the State

In the chapter "The Effect of National Membership-character," we have already discussed the behavior of the state. We saw that the nation as a social field was *structured* so that certain barriers always cut down the degree of freedom of social locomotion. We saw furthermore that different regions within the national field represented bounded subregions and that the whole national field was a bounded region. We shall define the state as the *governmental institutions by which these barriers and boundaries are imposed, clarified, and maintained.* The state then, as stated in one definition above, becomes the total paraphernalia of government, in its judicial, legislative, and administrative capacities and includes all the officers, bureaus, boards, as well as the laws of federal, state, and local governments. Not all restraint to the freedom of social locomotion is imposed by the state but by far the greater and more important part of the constraining forces are to be considered as due to the state. Table manners and personal sociability are, for instance, largely independent of the state, but what the individual has on his table and the conditions under which he may be sociable are regulated by it. Whom the individual will support politically and what he will believe concerning the nature of God and beauty are, in liberal democracies at least, not overtly subject to state control. But his position in the social field, upon which such opinions depend, is so largely dependent on the state that for practical purposes these too may be considered as subject to state control.[1] *The function*

[1] We return to this problem in the next chapter, where we shall see that social freedom must be differentiated into its economic, political, personal-social, and intellectual-action aspects.

of the state is to impose barriers and boundaries on the social field of the individual. Here again however we must remind the reader that reorganization of the social field is dynamically self-generating and to attribute causal force to the state is simply a short method of saying these total conditions are not clear. In so far as the members of the government are leaders we may say that the state represents the total paraphernalia by which leaders impose their "decisions" on the other members of the group. Here again we must remember, however, that the freedom of the leader to make decisions and to impose barriers is no absolute thing but depends always on existing field structure. In this sense all that we said about leadership must be kept in mind in discussing the state. Throughout history the ruling individuals have numbered very few out of the race. The power of these ruling individuals depends on the existing field structure. The actual functionaries of the government may or may not be the ruling class. Thus in America the functionaries, civil servants, are recruited chiefly from the petty bourgeois, while in England they are chiefly from the bourgeois. But the government has actually always been primarily in the interests of the ruling class. Consequently the state may be further defined as the paraphernalia by which certain regions of the social field impose barriers and boundaries on other regions of the social field. Here again however one must guard against the viewpoint of local determinism and consider the structure of the whole social field. In other words the ruling classes themselves are constrained in their activities through field structure. That a class rule obtains in dictatorship will be quite obvious from Chaps. XX and XXI. That it even obtains for all practical purposes in a liberal democracy will be shown in Chap. XIX. Failure to realize the true dynamical nature of the state causes the most serious mistakes of most bourgeois writers on political science. Thus in 1933 the liberal political economists hailed the New Deal of President Roosevelt as a step toward socialization of wealth and toward the establishment of a stable controlled capitalism under which real wages would rise in an equitable manner with profits. No doubt President Roosevelt and his Brain Trust advisers were honest and acting in good faith. But what actually happened? Real wages rose not at all, profits rose handsomely, and the whole plan was discarded. The government apologists had simply fooled themselves concerning the nature of the state. From the standpoint of field theory the objectives

of the New Deal could have been attained only with a real and spontaneous wave of material prosperity which would lead to a return to the field structure of the middle twenties. The failure to comprehend the dynamical nature of the state led a whole host of liberal economists to make mistaken prediction on mistaken prediction. Recently a leader of this school, Laski(181), has realized the nature of the mistakes.

Apparent Contradiction to the Field Theory.—However, one must not gather that the imposition of barriers is always completely against the interests of the other class or that self-regulation of the ruling class does not also occur. There are conditions under which increased freedom of all the regions of a social field occurs. The ruling class is not by "nature" an enemy of the ruled classes. It does not always consciously and purposely set out to hold the other classes down or to restrict them. We have seen in Chap. VII that in times of increasing field fluidity and increasing permeability of class barriers, liberal legislation ensues. Under such conditions the ruling minority, more or less consciously, attempts to raise the degree of freedom of social locomotion of the ruled majority. The consciousness of class antagonism itself is a function of field structure. When increasing fluidity allows greater freedom of social locomotion to the ruling class this freedom is passed on to a limited extent to the ruled classes.[1] Economically the increased freedom of the rulers depends on increased economic freedom of the ruled classes. *But when the restructurization of the field limits economic freedom of the ruling classes, or when the ruling classes are threatened in their organization by the ruled classes, actual antagonism comes to the surface.* Threats of failure in the economic freedom of the rulers lead invariably to imposition of boundaries and barriers on the ruled. In the succeeding chapters we shall give many examples of this.

Failure to realize the dynamics underlying changes in the role of the state has created such disagreement between various schools of political scientists that the public at large may well believe nothing scientific is known concerning the state. The Marxist[2] theory of the state undoubtedly comes very close to the field-theoreti-

[1] Thus most nineteenth-century treatises on economics and sociology stressed the convergent interests of capital and labor. They were written by individuals enjoying the fruits of industrial expansion. *Cf.* the standard texts of Ely(93) and Marshall(228).

[2] *Cf.* discussion of Marx's social philosophy in Chap. XXII; also Appendix A.

cal in that it invests control of the state in a class. The Marxian theory, however, has the following weakness. For propaganda purposes the Marxists have always stressed the antagonism of classes and the reality of the class struggle. As we pointed out in Chap. IX, the presence of class struggle depends on field structure, and the degree of oppression and exploitation of the proletariat likewise is a function of field structure. The Marxian economics, which predicts the enhancement of class struggle as a law of economic necessity, may well be sound. The point in possible criticism to be made is that the bourgeois statesmen do not consciously oppress the proletariat except where there is a conflict between the classes. Marx undoubtedly realized this as a theorist, but he was also a propagandist interested in the long-time range of sociological change. The bourgeois writers on the other hand have usually held the cooperation theory and argue long that "in America at least the tremendous increase of production and economic freedom is to be assigned to cooperation in the process of production under an adequate system of governmental checks and controls." It is quite true that during the great period of capitalist expansion from the Civil War until after the World War, the bourgeois economists had the better of the argument in the immediate practical sense. But in ways the Marxists are to be looked on as more far-sighted. There is small doubt that recent events have shown a growing antagonism between labor and the government. Furthermore, the growth of fascism in Germany and elsewhere follows in its broadest outlines the predictions made by the Communist International on a Marxist basis, and the failure of the New Deal in America is much more easily understood on the basis of Marxist economics than on any other. In conclusion we may say that the power of the state does represent the power of a ruling class but the manner in which it applies this power, *i.e.*, where the boundaries and barriers will be placed, depends on total field structure.

We do not wish to convey the opinion that state regulation is applied only to the ruled classes. There is also the apparent governmental regulation of the activities of the ruling class itself, evidenced in the liberalistic attacks on trusts and monopolies, the increase of income taxes, and the like. These regulations come about actually as a balance of power between various segments and subgroupings of the upper classes. A more detailed analysis of these inner group conflicts lies without the limits of this work. There

are even field structures in which the chief conflicts occur between the entrepreneurs and the rentiers in the sense of Pareto's theory.[1] These conflicts however are of little historical importance. *Major reorganization of the state occurs only after major changes in the basic modes of production.* The economic factor stressed is not the only one, nor does it give a complete explanation of the role of the state and the changes in it. Individual decisions, which must be looked on as free in the sense in which this word was defined in the last chapters, are quite necessary to account for the individual statesman. Furthermore the mixed membership-character of many leaders plus probable psychoanalytical factors complicates the picture.[2] Besides the original economic factors concerning which we perhaps know most, there are quasi-economic factors which lead to changes in policy of the state or in the statesman. One must not gather from our presentation the idea of the capitalist which is given by the radical press for propaganda reasons. Here he is always the class-conscious, slave-driving, heartless, top-hatted, overfed villain. Capitalist "sympathy" and "generosity" have had much to do with the world as we know it. But sympathy and generosity we must remember are field-determined rather than class-determined. There are various liberal-minded and philanthropic capitalists who superficially at least are in thorough sympathy with the underdog. The acquisitiveness of the youth sometimes becomes the philanthropy of the man. Here the analysis of the Freudians must enter in. Furthermore the derived or quasi-economic factors described in Veblen's *The Theory of the Leisure Class*(338) undoubtedly contribute to the behavior of the bourgeois as statesmen. These factors are of little significance for the present crisis, however. State forms have changed in the past and they will change again unless industrial expansion under capitalism relieves the present crisis. *The economic class struggle* remains the basis for the greatest changes in the state and the behavior of a sufficient majority of members of both classes may be derived from the field structure to arrive at topological predictions of change. Consequently, our definition in field-dynamical terminology of the role of the state is quite justified. The power of the state is the power by which barriers

[1] Pareto's theory will be dealt with briefly in Chap. XXII.

[2] H. D. Lasswell attempts to account for political leadership almost solely by psychoanalytical mechanisms(183). Few psychologists would attempt to go so far along these lines as this political scientist does.

and boundaries are imposed through the leadership of the ruling class. Under conditions of capitalist industrial expansion state power is never so obviously in the interests of the ruling class as it is in times of prolonged economic crisis.

4. The Governed and the Governing

The popular idea of the government as made up of the chosen representatives of the whole people through free suffrage is a fairly modern one. The state as a cooperative enterprise justified by the social contract for the mutual good of all contracting parties dates back only two hundred years. There had been states and government long before this time and the theory of government was quite different. The idea of the divine right of kings was only overcome a century and a half ago.[1] And the divine right of the church to govern held for many centuries. Even today there is everywhere a division between the governed and the governing. Let us trace very sketchily the chief changes in such functions.

The Genesis of State Control.—The germs of the state lie in the function of the tribal leader.[2] But from the beginning the power of leadership of such chieftains was limited in its function by group organization. The state represents the power of the clan leader granted him originally through usurpation by brute strength. He then became the power for enforcing the mores, folkways, and taboos. When there were in-group versus out-group conflicts, he led the armies. In very primitive society, as soon as agriculture and industry had become started, property relationships led to war. The origins of the state lie in the tribal leader.

As soon as communication and industry allowed the organization of larger tribal groups, these forced the individual leader to delegate certain powers to their representatives, and here we have the origin of the governing class.

From this time until the present there has existed the genotype of the state. What has varied has been the forms of the state and its detailed functions. To save space we shall not consider the ancient slave-owning states, but will begin our further discussion with the growth of the modern state about the sixteenth century.

[1] In Germany it is practically revived as a sort of divine right of Hitler.

[2] *Cf.* Freud's *Totem and Taboo*(116) and *Group Psychology and Analysis of the Ego*(113) for the psychoanalytical analysis of the origin of leadership.

Throughout the Middle Ages, the largest governing organization was that of the church. We have already seen in Chap. VIII that many of the functions of the modern state were relegated to it. As the Roman Empire, which was antiquity's greatest state, fell into warring factions the chief integrating force of civilization was the church. The church became a sort of governmental clearinghouse and superstructure for the various feudal princes. Local government was carried out by the feudal princes and immediate barriers and boundaries were defined by them. The vast majority of individuals had no voice in the state. Temporal power was granted to the feudal princes through the pope. Here we have the origin of the divine right of kings.

The bourgeois revolution has been touched on in Chap. XI. Its three resultants were the growth of the modern nation (state), the creation of manufacture and the market, and the political and economic emancipation of the bourgeois class. This bourgeois class at first shared in the state but gradually came to dominate it. Its highest developed form of government was the liberal democracy, which will be field-dynamically analyzed in the next chapter. When the underlying field dynamics change, liberal democracy must change like the feudal organizations which preceded it. The following chapters will speak of this.

5. The Process of State Control

Organized wholes like the nation may be disrupted in two fashions. There may be destruction from without, which includes the process of assimilation into new wholes, or there may be radical reorganization within to the extent that the basic structure of the state changes. Examples of the first sort are defeat in war and subsequent territorialization and colonization (empire building), with the imposition of state control by the victorious on the conquered nation. Example of the second sort is successful revolution. *The two chief functions of the state are to preserve the territorial and governmental status quo.* This is done by force and by persuasion. We shall deal with territorial control first and then with governmental control.

The Modern State.—The modern nation is to be ordered to a bounded limited social region. Here social boundaries in general correspond to geographical boundaries for problems of actual physical locomotion. Control of entry in times of peace is through

force which is exerted socially by the immigration laws enforced by the immigration officials. In times of war the force is of course that of the army. The actual boundary as social-psychological barrier is legally imposed and controlled by force. In Chap. VII we discussed the permeability of this outer-barrier and its functional dependence on total field structure. In general we saw that there was a decrease in permeability whenever there was a fall in the freedom of social locomotion. Also important is the fall in permeability following restriction of international trade and growth of nationalism.

In general it may be said that organized wholes resist the disturbing influences of outside forces.[1] Permeability of the national boundary decreases in war, in economic depression, and when further immigration might upset the existing *status quo* of internal organization. *The army is the institution which functions as an outer-barrier in order to preserve the state's territorial status quo.*

Organized wholes like nations also show the tendency to expand. The question of the necessity for such expansion lies without the limits set for this book. In modern times, however, it may be remarked that capitalist industrial civilizations are forced by inexorable economic laws to find markets outside the nation and to find opportunities for the investment of surplus capital; thus the growth of imperialism. Imperial expansion is one possible way of creating prosperity at home. In such cases the army is the force for expanding the territorial status. Much of the talk about armies for defense only is the purest moonshine. *The army is absolutely necessary as a tool of the state for expansion under conditions where expansion alone will preserve the internal governmental status quo.* Consequently as Beard and Smith(16) have shown the modern industrial nation almost invariably supports both an offensive and a defensive army.

The internal *status quo* is preserved by the imposition of inner barriers through the laws and their enforcement through the police. The state preserves the *status quo* essentially through force. Individuals who in any way seek seriously to upset it are segregated through physical force (jails, concentration camps, etc.). Minor violations are punished by money fines but the social-psychological effect of fines differs from imprisonment only by degree and not by kind. Both dynamically represent barriers imposed by the state in

[1] *Cf.* Wheeler's(353) seventh organismic law.

order to protect the existing field structure from certain individuals. In the next paragraph we shall see that the permeability and frequency of barriers imposed by the state vary with the internal field structure and the class alignment within the national field.

The strictness of laws and the social locomotions which they prohibit vary decidedly with the total political structure of the state. We shall see this difference quite clearly when we discuss liberal democracy, fascism, and communism as state forms. For certain field structures, sufficient control of degree of freedom of locomotion in many spheres may be had by persuasion. When the government is threatened in its stability either by an external enemy or by internal unrest, control previously accomplished by persuasion becomes control by force.

The sanctity of the person is preserved by law and in so far as personal sanctity is related to property, property rights are also strictly regulated. The history of the fall in church influence already treated in Chap. VIII is really only the history of the control of certain personal locomotions and property relationships being taken over by the state. There is freedom from state control only with regard to locomotions which cannot seriously upset existing property relationships. Thus the property side of sex relationships, religious observances, and vanity gratifications is strictly regulated by law and subject to enforcement by the police. *In so far as personal freedom does not endanger the class and property relationships (internal field structure), it is permitted.* When personal freedom threatens the state, it is restrained by the state.

6. Laws and Field Structure

In the ensuing three chapters many examples of changes in laws regulating the freedom of the press and in laws governing monetary accumulation, marriage, and morals brought about by changes in field structure will be given. What individual locomotions with regard to economic, political, social, religious, and conceptual goals are blocked through law will be shown to depend on the underlying dynamics of the whole social field. Laws then represent barriers erected by the state. The state is controlled by the ruling class. But the freedom of the ruling class to rule, itself depends on the total field structure and consequently must not be looked on as locally determined in the leaders.

7. Control through Persuasion

Besides controlling individual locomotions by legal barriers, the state attempts to control locomotions by persuasion through government bureaus, publications, control of radio, etc. All control of social locomotion is never undertaken by the state. The folkways, the mores, public opinion, all are to be treated as barriers in the social field. Since nearly all social locomotions are dependent on economic factors and since economic factors or property relationships are the basis for law, there is probably no social locomotion completely free from state control. No government, however, can support every citizen as a policeman for both social and economic reasons. Consequently control through persuasion and propaganda is also important. There are two problems to be handled here. What is done by force and what by persuasion must be separately treated. The locomotions legally blocked depend chiefly on the property relationships and their stability. In times of peace and industrial prosperity, *i.e.*, in those times where the governmental *status quo* is firmly established, the state imposes fewer actual legal barriers and is not so concerned with control of the agencies of persuasion. When the *status quo* is threatened either by a foreign power or by internal unrest, the state control over the agencies of persuasion becomes a matter of law. In extreme cases such as in time of war and under fascism the state becomes all potent. Thus there is a close correlation between the freedom of the organs of persuasion and the general distribution of legal barriers.

But there are natural limitations to legal enforcement. These are quite obvious. The size of the police and army has a limit. Consequently much must still be done through propaganda. State propaganda is enforced by control of the organs of persuasion by a state or political party. It is a very important factor in social control at the present time.

8. Who Controls the State?

The state has been defined and the problem of the relationship between the state and leadership touched on. We have seen that the state is the total paraphernalia by which the ruling class imposes barriers in the social field for the other classes and itself. At the danger of being repetitious, we must stress again that the ruling class itself is determined by the total structure of the social field.

If this is not taken into consideration, the field theory cannot account for different types of state structure. In our analysis of fascism or the dictatorship of the bourgeoisie the aim of state control will become quite clear. It is likewise quite clear in the socialist state that control is in the interests of the proletariat. In liberal democracy, however, superficially we have the state functioning as a "cooperative institution for the common good of its citizens."

The organization of the nation as a whole in its field structure imposes barriers on the freedom of state control. The appointed and elected functionaries of the state are not to be looked on as free and outside the social field. Their social psychology is determined by the groups from which they come. Under liberal democracy, to a certain extent they come from all classes (*i.e.*, regions of the social field). This creates the impression that the government is representative. But we shall see in the next chapter that even in liberal democracy actual state control when the interests of the classes conflict is in the hands of the bourgeoisie. Again we stress that *the state is controlled by a class but the freedom of action of this class depends on total field structure.*

9. Summary

In this chapter we have seen:

1. The concepts state, government, and administration have to be clarified.

2. The popular idea of the state as a cooperative institution maintained to safeguard and promote the general welfare of the people is untenable, being based on the theory of social contract which is untenable on methodological grounds.

3. The state is the institution by which the ruling class imposes barriers in the social fields of the other classes and in its own.

4. The history of the evolution of the state and of different state forms was briefly sketched.

5. The functions of state control include fixing territorial and outer group boundaries and internal barriers. Both are imposed to control the *status quo*. Force and persuasion are two means of doing this.

6. The frequency and permeability of laws as barriers depend on the total field structure.

7. Organs of persuasion come under the control of the state when the internal stability or territorial status is threatened.

8. The state itself is always under the control of certain classes. These classes however are conditioned in their control by field structure.

BIBLIOGRAPHICAL NOTE

The "popular" theory of the state is largely the result of the labor of seventeenth- and eighteenth-century philosophers; *cf.* Murray(252), Merriam and Barnes(241), MacLeod(223). The Hegelian idea of the state was not mentioned in the above chapter but is important; *cf.* Hegel(135), Bosanquet(27). The closest approach to the field-theoretical is that of Marx(232, 231). *Cf.* also Lenin(186). One of the best general works on the state is the recent book of Laski(181).

In the next chapters we shall give more detailed references to works on the various state forms.

CHAPTER XIX

TYPES OF STATE: THE LIBERAL DEMOCRACY

1. Types of State

Once more, at the risk of becoming wearisome to our readers, we repeat that descriptions in the language of data are without explanatory value. The descriptive data on liberal democracy and dictatorships may not be classified into patterns of facts and used for purposes of explanation. It does not belong to the "nature" of the American people to be liberal democrats nor to the "nature" of Russians to be believers in a dictatorship. There are no particular qualities of liberal democracy or of dictatorship which give either a superior position in the hierarchy of possible state forms. One may believe in the "ideals" of the liberal democracy or in the "ideals" of the dictatorship and be quite impotent to do anything toward bringing either into existence. The only explanatory concepts of political science, in so far as it is a socio-biological science, are those of the language of constructs. There are not two, four, or six forms of state, but an indefinite number depending on each variation in the degree of freedom of social locomotion and the distribution and permeability of barriers. All these variations must be accurately described for the concrete momentary situation. The underlying field dynamics of the American nation today is different from its structure of a year ago when the author first planned this book. The description of it which follows may already be out of date when the book is through the process of printing. A year ago the French Republic was to be ordered to a differently structured field from that which represents it today. Recent events in Germany and in Italy make our field-dynamical characterization of the fascist dictatorship, as originally planned, somewhat out of date. However, it will still be worth our while to analyze certain state forms at definite times from the standpoint of field theory. For, by so doing, we shall gain some insight into the laws governing change of such dynamic systems and into the effect of such changes on the social psychology of the people.

Three State Forms.—There are three existing state forms which are of great importance as types even if these forms genotypically shade into each other. In the following chapters under the term *liberal democracy* we shall understand the general structure of the social fields underlying the civilized industrialized countries of western Europe around the turn of the twentieth century. By *fascist dictatorship* we shall understand the social field underlying Germany, Italy, Poland, and Austria today. By *communist dictatorship* will be meant the social field structure prevailing in the U.S.S.R.

Limitations of Our Discussion.—This comparative study of state forms by no means attempts to establish a definitive theory of political science. We shall be interested primarily in *dynamic* changes in the underlying *genotypes* of the various state forms and in the effect of these changes on the social psychology of the individuals as members of the nations in question. We shall have little interest in a static comparison of the various state forms for the following reasons. In the first place, the present historical era is generally recognized to be one of great change and consequently in our limited space we shall stress change. Secondly, static comparisons are bound to be meaningless unless we constantly refer to past history and present trends. For instance a static comparison of communist Russia with fascist Germany that does not take into consideration the cultural status of both Germany and Russia through the past half-century would certainly lead to conclusions highly erroneous to say the least.[1] Thirdly, we can get fairly accurate statistics descriptive of any one country at different periods, but to get statistics which allow a static comparison of the various countries is almost impossible. For all these reasons our interests will be in dynamic changes within individual nations rather than in static comparisons of present conditions. The dynamic comparisons are of greater long-time significance and may be based on more stringent methodological procedure. *These limitations in our method must be kept in mind through the following three chapters.*

[1] The reason why there is such a colossal variation of opinion concerning contemporary Russia is that scarcely two writers start with the same amount of consideration of the cultural background. Thus most of the very enthusiastic accounts are completely cognizant of Russia's past and take a dynamic view, where most of the very damning accounts simply compare contemporary Russia with liberal democracy at its best.

At the present time no one of the western European nations represents the field structure of liberal democracy at its most typical and successful period, and the dynamic changes are continuing rapidly. It may well be that there will be more social and economic freedom in Russia five years from now than in the United States. A class-theoretical analysis however might still continue to call the U.S.S.R. a dictatorship and the United States a liberal democracy. Possibilities such as this show that we must be very careful not to describe political forms as phenotypes but must look for their underlying genotypes. Dynamic changes in the genotypes underlying liberal democracy have been so rapid in the last five years that the traditional liberal democratic form of government may be replaced by fascism or state capitalism in states which are now liberal democracies, by the time this work is published. Consequently in order adequately to discuss liberal democracy we must describe the structure of the social field during its various phases—its period of origin, of most successful functioning (the nineteenth century), and of obvious decline today.

2. The Origin of Liberal Democracy

The roots of the liberal democratic state lie undoubtedly in the events of the overthrow of feudalism and the start of the capitalist system. Historically it may be defined as the form of government most suited to successful capitalism and hence of necessity arising wherever capitalism has been firmly established. Its slogans of liberty, equality, and democracy are most intimately associated with the French Revolution although their real foundation is to be found in the economic and trade developments of the preceding one hundred years. The feudal state was overthrown in England in the seventeenth century, in France in the eighteenth, in Germany in the nineteenth century. Luther was a forerunner of nineteenth-century capitalism as were to a certain extent Cromwell and Robespierre. However if we must name individuals, Galileo was the ideological father of them all.[1] The baroque science made

[1] That the attitudes taken by the successful revolutionary toward both church and state depend to a certain extent on existing scientific knowledge is amply illustrated historically. Thus in England in the seventeenth century, where the social and biological sciences were as yet unknown, the revolution established Protestantism and a limited monarchy. In France in the eighteenth century, where there already were the beginnings of these sciences, the church was

possible the industrial revolution and the baroque age of discovery led to the establishment of the trade routes which made the modern market possible. Indeed the course of modern capitalism might be best described in a phrase as "the application of physical science to human problems."

Before liberal democracy the state form was that of feudal autocracy. The law was created by the church and the feudal princes. The common man was a serf bound to the land. Freedom was unknown except to the feudal aristocracy. The earliest applications of physical science so radically altered the social field that a certain amount of freedom became possible. In order to utilize this freedom the emancipation of the feudal serfs was necessary. The creation of the liberal democracy for the growing bourgeoisie is to be attributed to the same basic cause. And with the liberal democratic state came the necessity for changing the church form to Protestantism. There ensued a decided increase in social freedom as we defined it in the last chapter, but this freedom was a consequence of the application of physical knowledge to industrial production rather than any human wishes for freedom being the cause of industrialization. Freedom is a function of the structure of the social field.

The liberal democracy arises with the capitalist system of production, and is characterized by the parliamentary control system of state administration and results in certain freedoms of individual locomotion. One must clearly distinguish the field-dynamical definition of freedom of social locomotion from the popular slogans of freedom. In the following lines we shall do this.

3. Field-dynamical Description of Liberal Democracy

The liberal democracy is a "class" society as opposed to a "classless" society, a national as opposed to an international form of government, a government under which certain freedoms are constitutionally affirmed, and a government in which the state imposes barriers by force. It is chiefly distinguished from other modern forms of government by the nature of the guaranteed freedoms. These freedoms are concerned with political and property rights.

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abolished and a republic established, while by the second decade of the twentieth century they were sufficiently far advanced for the revolution in Russia to take the form of a "social science revolution."

Thus in liberal democracy property rights and certain suffrages are guaranteed. Democracy, of course, means the rule of the people. The qualification "liberal" means that this rule will work toward an increase in social freedom for the whole people. In times of economic expansion (the nineteenth century for instance) the designation is a just one. In general in our discussions of the national social field, field-dynamical descriptions of such a state have been given (*cf.* Chap. VII). The national social field is bounded by an outer-barrier which defines the territorial boundaries of the nation and the membership-character of the individuals within it as nationals. These territorial boundaries are enforced in peace from external aggression by the army. The national army differs from feudal armies in being under direct control of the government rather than under control of the feudal princes or church prelates. In times of ordinary functioning the army is the sole protector against external aggression. The army, of course, also functions as an aggressive agent in times of war. Thus we have seen in Chap. VII the great increase in prestige and power of the military in wartime. In liberal democracy there is always a fairly high potency of national membership-character which increases greatly in times of war and may under circumstances increase in times of industrial unrest. The citizen of a liberal democracy is more patriotic in the national sense than either a feudal serf or a socialist citizen of modern Russia. Long periods of fair stability of field structure also implant certain national characteristics on the citizens of liberal democracies. Thus Englishmen, Frenchmen, and Germans tend to develop characteristics of temperament which class-theoretical social scientists then derive as belonging to the nature of such nationals. As we pointed out in Chap. XI, the vast majority of individuals suffer from the effects of cultural lag and many Frenchmen, Englishmen, and Germans continue at the present a type of patriotism more suited to a previous age. But nationalism always is present in varying amounts within the liberal democratic state. It increases when the national stability is threatened by outside forces either actually or apparently. Such shifts in the prevalence of nationalistic attitudes under liberal democracy are all too infrequently emphasized by the liberal social philosophers. Pacifist groups within the liberal democracy, as we pointed out in Chap. VI1, hope to avert war by influencing persons to be pacifist in sentiment in times of peace. Such activity completely disregards the basic

changes in field structure which occur in wartime or when a nation is mobilizing for war. Attitudes are determined by field structure. Consequently friends of world peace should consider their potentiality of accomplishment always limited by this fact.

That nationalism increased as feudalism was replaced by capitalism is shown not only by the nature of the armies but by the increase in wars in the past three hundred years.[1] That increased nationalism becomes a characteristic of liberal democracy under external stress is seen most clearly by the recent series of failures of the League of Nations with regard to disarmament and the establishment of the Japanese-controlled Manchukuo Republic, and the Italo-Ethiopian War.

The liberal democracy, based as it is on a capitalist system of economic production, always has more or less definitely marked class subregions in the social field. The history of the last century shows most clearly the relative shifts in potency of class and national membership-characters. The whole history of reformism in politics is the history of class membership-character becoming potent to a threatening point and creating governmental reforms. These reforms themselves, however, were made possible only by the fact that the degree of freedom of social locomotion was increasing for the whole national field, owing to successful capitalist industrial expansion. The dynamics behind this class struggle has already been handled in Chap. VII. The liberal democratic state may continue only while the class struggle is relatively unimportant, *i.e.*, where potency of class membership-character is limited.

The governmental paraphernalia of the liberal democracy enforces barriers by the force of the administrative arm of the government, clarifies barriers by the legal arm of the government, and imposes them by the legislative arm of the government. The avowed purpose of the state is to control the activities of those individuals whose asociality endangers the rights of the social contract. Under the constitution of most liberal democracies these rights are those of certain guarantees to the individual person and his property. The liberal democratic state and its constitution, however, are the creation of the emergent middle class and the freedoms granted by it are freedoms in the interest of that class. The force exerted by the state through its laws is largely exerted in the interest of the bourgeoisie in the liberal democracy. We have already seen that

[1] *Cf.* Sorokin(307).

the barriers in the social region of the proletariat are more frequent and less permeable than those of the bourgeoisie (Chap. VII). This is with regard to all sorts of social freedoms. These differences will be handled in the next paragraphs. Following their delineation we shall show how, from these differences in social freedom, the bourgeoisie is field-dynamically enabled to control the state.

4. Freedom of Social Locomotions under the Liberal Democracy

If we consider such popular definitions of freedom as that "freedom is the gift of God to man," and then realize the limitations imposed on the freedom of the individual will, as outlined in Chap. XVII, we soon realize that freedom so defined is a rather meaningless concept. If human psychological activity consists in striving for perceived goals and human happiness consists in arriving at them, freedom may be measured and hence defined only in terms of whether an individual is able to perceive goals and locomote to them. A great deal of the nebulosity concerning the term freedom arises through generalization of certain aspects of this problem. Any definition of freedom to be meaningful must start with the psychobiological aspects of the problem. These we have already handled in our discussion of leadership. The limitations imposed by man's biological constitution are serious enough limitations on his freedom when freedom is taken in this broad generalized sense. We must of course always keep them in mind. More significant from our standpoint are the limitations on the degree of freedom of social locomotion which arise through state control. These limitations will concern us next. The liberal democratic state imposes barriers on the locomotions of individuals toward many sorts of goals. Much clarity will ensue if we distinguish these goals into types. Thus man strives for economic goals, social goals, political goals, and intellectual goals.

Economic Freedom.—In order to exist at all modern man must be fed, clothed, sheltered. He must have access to the tools necessary for his work and often transportation to his place of work in modern industrial society. Food, clothing, houses, implements, and the like represent the first and most important psychobiological goals. Such goals will be called economic goals and locomotions in the social field toward such goals will be called economic loco-

motions in the following paragraphs. Freedom to make such locomotions is under the control of the state and varies for different positions in the social field. We may hence speak of degree of freedom for economic locomotions or more simply economic freedom.

Personal-social Freedom.—Modern man when he is clothed and fed seeks the company of his fellow men of both sexes. He wishes to engage with them in congenial pursuits, to talk with them, eat with them, dance with them, and even to be in the most intimate physical contact with some of them. Such goals we shall call personal-social[1] goals, the locomotions toward them personal-social locomotions, and consequently we shall speak of degree of personal-social freedom. Certain limitations on personal-social freedom are also imposed by the state, and the degree of personal-social freedom of the individual depends on his position within the social field.

Intellectual-action Freedom.—As we saw in Chaps. XV and XVI the individual in society invariably meets certain barriers to his economic and personal-social locomotions. Through meeting these barriers the reality dimension of the psychological surrounding field is developed and with it the individual's ability to show intellectual behavior. From the earliest years an individual able to attain enough economic goals to keep himself alive and enough personal-social goals to keep himself sane strives for certain intellectual goals. He begins to deal in intellectual symbols and forms beliefs concerning the nature of God, the state and society, physical reality, and the cosmos in general. These beliefs, if he is normal, may sometimes be used as tools for changing the physical reality of the world about him. As we saw in Chap. XV, the tension discharge or compensatory value of attainment of these goals depends completely on his ability to translate these beliefs into action. Consequently the modern adult strives for freedom with regard to his beliefs on religion, politics, and nature and strives to act on these beliefs. Such goals we shall call intellectual-action[2] goals, the locomotions toward them intellectual-action locomotions and consequently we shall speak of various degrees of intellectual-action freedom. Here we lump together what is popularly known as religious freedom, academic freedom, freedom of press, pulpit, stage, radio, etc. Here also we

[1] Personal-social to distinguish from general-social, which includes these and the economic, political, and intellectual-action goals.

[2] Pure subjective freedom of thought is little prized for the reason given in Chap. XV. Consequently we speak of *intellectual-action* goals.

shall see that degree of intellectual-action freedom depends on the position of the individual within the social field and is regulated by the state.

Political Freedom.—Finally the individual is concerned in having a voice in the state control over these various forms of freedom. He wishes to consider himself part of the state and important in regulating the freedom of himself and his fellow men. He seeks the rights of suffrage, of agitating for a given candidate or party, and occasionally of holding office himself. Such goals directly concerned with the control of the state we call political goals, locomotions toward them political locomotions, and we speak of degree of political freedom. There is, despite the often re-echoed opinion of Aristotle that man by nature is a political animal, no innate desire in humans which makes them seek political goals. The average individual cares directly for economic freedom, personal-social freedom, and intellectual-action freedom and under a state where all individuals were assured of these things political freedom would never become a problem.[1] Political freedom is sought solely to protect other freedoms. The average individual during good times is but little interested in politics. Politics becomes an important problem only in times of economic and social stress. The much remarked about political interestedness of the Englishman and the German compared with that of the American is quite definitely deducible from the different field structure. In the years of the great depression Americans have been as politically minded as anyone else. Despite the fact that striving for political freedom is no "natural" human tendency, political freedom remains a real issue under liberal democracy. The degree of this freedom too is dependent on the position of the individual in the social field and is defined by the state.

In dividing social freedom into economic, personal-social, intellectual-action, and political freedom, we have made a somewhat arbitrary classification. Many individual social locomotions may be toward goals which are in several of these classifications at the same time. Thus an individual may strive toward economic success in order to be able to make certain personal-social contacts, to have

[1] We shall see later that there are absolutely no stringent psychological grounds for the necessity of the state and political action inherent in human nature. The Marxian doctrine of the "withering-away" of the state in an economically advanced classless society is quite plausible; *cf.* Lenin(186).

leisure time for intellectual-action goals, or to be elected to political office. Or another individual may strive for political office in order to put his ideas before the people, or to gain prestige in the eyes of a certain person, or to be in on the graft ancillary to such a position. In such cases the goal has aspects of all of the various forms of freedom. In all cases intellectual-action freedom, personal-social freedom, and political freedom are dependent on economic freedom. Thus even those sorts of personal-social and political freedom over which the state exerts no direct control are dependent on economic freedom, which is always controlled by the state. We must never forget these intercorrelations in speaking of the various types of social freedoms and social goals.

The separation, however, has definite advantages because it allows us operationally to define the idea of freedom and give it some meaning. Much of the lauding of the freedom and liberty under liberal democracy on the one hand and much of the horror at the lack of freedom under dictatorships expressed by social scientists and historians is not only meaningless but often nonsensical. The discussion of freedom under liberal democracy in the following lines and of freedom under dictatorships in the following chapters should elucidate this point. We shall hence deal with political, intellectual-action, personal-social, and economic freedom separately under liberal democracy. With each of these we shall see how far the state controls or guarantees them and how far the degree of each for the individual depends on position within the social field.

The Various Freedoms under the Liberal Democratic State.—Under liberal democracy political freedom is guaranteed to a comparatively high degree. In the United States for instance this is done by the Constitution and those amendments known as the Bill of Rights. Included here are the suffrage rights of the individual and his right to hold office. These political guarantees are not absolute for all individuals but supposedly regulated for the common weal. They are invariably curtailed in time of war or severe industrial unrest under so-called martial law. The state here again originally imposed the barriers and guaranteed the rights to the bourgeoisie, at the time of the establishment of parliamentarism. The establishment of such rights was demanded by the emerging bourgeoisie in order to obtain virtual control of the state apparatus. And from the position of this control these political rights become

guaranteed. Here again, largely on the basis of the economic freedom of which we shall speak shortly, the class alignment plays a considerable role. The barriers of law present quite different permeabilities to various classes and economic freedom is quite differently distributed in the various classes.

Suffrage depends largely on the existing field structure. Universal suffrage is unknown. There are always laws refusing suffrage to illiterates, imbeciles, criminals, and the like. Furthermore, regarding many suffrages there are property qualifications. Several times in the present depression there has been attempted legislation to deprive the unemployed of their suffrage rights. Under certain conditions some political parties (communists usually first, then socialists) are driven "underground." Even when these parties are allowed to function the regular parties impose barriers on their political activity by various extralegal means. These limitations in political freedom are always closely related to, one might almost say derivative from, the existing economic freedoms.

We next turn to intellectual-action freedom. This is the freedom to believe as one wills and to act on one's beliefs with regard to religion, society, and natural science.

The liberal democratic state guarantees freedom of religious belief.[1] Under feudalism the church was if anything more potent than the state itself (Chap. VIII). Church control of immense estates and church regulation of trade stood strongly in the way of the development of the modern market. The modern market was made possible by the growth of physical science, and the new knowledge of nature which this furnished cast considerable doubt on the theological cosmology of the time. The church power was destroyed during the baroque period, particularly in those countries where objective conditions were to give rise to capitalism. The Protestant Church arose and was guaranteed freedom. By the time of the French Revolution, science had made such attacks on theology that even atheism was permitted. In the liberal democracy of today religious freedom is guaranteed by the state.[2]

[1] In many states like England and Germany which are to be classified as liberal democracies there are state churches officially supported by the state but the individual does not need to adhere to them.

[2] When such freedom is completely abolished liberal democracy is replaced by a dictatorship. However, religious freedom is *never* the only freedom abolished, despite the fact that it is the most frequently spoken of.

The church, however, as analogous to the state remains to impose barriers regarding religious behavior on its members. And under the capitalist state the control of the church is quite obviously in the hands of the bourgeois. So, even with regard to religious freedom, class membership-character plays a very decisive role. It does this in two ways. First, within the church itself control remains largely in the hands of the bourgeoisie who almost exclusively fill the higher offices. And, secondly, freedom of choice of religious belief depends on the whole existing structure of the social field. The superior education and freedom of mobility of the bourgeois make this choice really freer in the operational meaning of the word. Catholic coal miners' children quite obviously have little freedom of religious belief. Religion itself under the slogan of freedom has interpreted religious freedom to be freedom to believe in religion. It is commonplace knowledge that the out-and-out atheist has hard sledding as a teacher in the liberal democratic schools. Many such schools demand that religious behavior be shown by the teachers. Freedom of religious belief exists then in the liberal democratic state, if one adds the conditions under which it obtains. These are that the degree of religious freedom depends on total field structure and particularly on social class. Historically the problem of academic freedom grew out of that of religious freedom. The liberal democracy guarantees this also to the citizen. With regard to the physical sciences this academic freedom has been universally achieved.[1] With regard to the biological sciences such freedom is quite questionable. Only ten years ago the famous Scopes trial showed the amazing spectacle of a teacher of biological science being tried for his adherence to the Darwinian theory of natural selection. With regard to the social sciences full academic freedom has never existed. Teachers of economics, history, and sociology operate in a field of innumerable social barriers imposed by both church and state.

A similar situation exists with regard to the other freedoms guaranteed by the Bill of Rights. Freedom of the press means little more than freedom for factions within the bourgeoisie to air their opinions. Members of the proletariat have little real opportunity to exercise their rights of either freedom of the press or freedom of political action for pecuniary reasons, and the same is

[1] It is interesting to point out that under modern dictatorships the physical scientist is allowed much freedom, the biological and social scientist little.

true of all other intellectual-action locomotions. The freedoms guaranteed under liberal democracy are never absolute and always depend on the social class membership for any given individual.

In the field of personal-social freedom, a similar situation obtains. The laws regarding social assemblage, amusement, athletics, and the like supposedly regulate these for the common weal again. American Prohibition is a good example of such state control. Its history is well known. The law was consistently violated by upper-class individuals who escaped untouched and the penalties were paid by proletarians (bootleggers). The English divorce laws are another example of varying permeability of barriers under liberal democracy. Divorce is granted only on the basis of an expensive procedure which requires witnessed infidelity. The laws regulating obscenity in literature represent another example. Esoteric and erotic literature has always been "bootlegged" to the wealthy collectors. But the piling up of cases is probably unnecessary. The state guarantees of personal-social freedom and the barriers imposed by the state to protect these things under liberal democracy show decided variance in permeability in the various class regions. The number of barriers varies in different class regions partially through direct state control and partially through the dependence of these freedoms on economic freedom, which we shall now consider.

Economic freedom is basic to all others and it, above all others, is the dominating force behind state control. Our other freedoms originated with the struggle of the emerging middle class to obtain economic freedom. Freedom of ownership of goods in the modern sense of the word originated in the struggle for the development of the modern market from the sixteenth century through the nineteenth. These struggles led to the modern capitalist economic system.

Under capitalism economic freedom is directly correlated with the ability to obtain goods and services through money in the market. Consequently we have available in the concept of real income a ready index figure for the "measurement" of economic freedom. *Degree of freedom of social locomotion with regard to economic goals depends directly on the real income.* To be sure income depends on the existing condition of the arts with reference to the existing population. Both of these combine to give us information concerning the standard of living of the total population under any field structure. The

economic freedom of the individual is more subject to measurement than any other freedom and it depends on real net income.[1]

From our standpoint then economic freedom may mean only the ability to purchase goods and services, which of course is dependent on the ability to sell goods and services. So in a liberal democracy economic freedom depends on income. And income varies decidedly with class membership-character. This is true of all liberal democracies. At the present time in America the real net income of the average bourgeois is many times that of the average proletarian and that of the petty bourgeois falls between the two, closer to the proletarian.[2] Individuals like the unemployed on relief, the poor tenant farmers, and very poorly paid proletarians may be said to have practically no economic freedom. For comparison purposes, the differential between real net income and necessary outlay for a bare subsistence should be used rather than real net income alone in assigning index figures for degree of freedom of economic locomotion. The individual at or below a subsistence level of income must use his total income for food and shelter and consequently has little freedom in the choice of his economic goals. Consequently in a capitalist crisis the decrease in the economic freedom of the proletarian is always relatively greater than that of the bourgeois despite the fact that the actual income loss is very often much greater in percentage among capitalists. A capitalist may even have a net income on the debit side of the ledger and still use his accumulated funds to maintain a high degree of freedom of economic locomotion. The proletarian even before the crisis has little excess money to spend and during the crisis none.

In periods of economic expansion the increased permeability of the class boundaries means that the biologically better equipped proletarians may make the locomotions into the "higher" class regions. Similarly during good times the economic freedom of all classes is increased, but not equitably or in proportion to numbers within the classes. Thus, degree of freedom of economic locomotion depends on the economic cycles under capitalism. We have already spoken in Chap. IX of the accentuation of the class war under conditions of industrial depression and its practical disappearance

[1] Real net income is gained by weighting net money income in terms of commodity prices.

[2] *Cf.* the statistics of *Labor Fact Book II*(179), *Recent Social Trends*(278), and Brookings Institution reports(32).

under conditions of expanding industrialism. At the present time, nearly all economists recognize that cyclical crisis is inherent in the capitalist system of production. It is also a fact that capitalist crises have become increasingly severe in modern times. Whether or not future economic crises must increase in severity is a matter for economic science to decide. But social-psychologically, if they do, the tendency to develop revolutionary situations must ensue. And if such revolutionary situations continue to occur, the capitalist system may be overthrown. That such could not possibly occur can be argued only by individuals with eyes closed to reality.

The Development of a Caste System under Liberal Democracy.—The problem of economic freedom is hence more clearly definable under capitalism through the field-theoretical method. Despite the fact that it is legally guaranteed, the ability of actual locomotion toward economic goals depends on the class to which the individual under consideration belongs. The bourgeois has, first, greater pecuniary reserves, second, greater income, and, third, the ability to pass on his greater freedom by inheritance to his offspring. Consequently the tendency arises to perpetuate a caste system even under liberal democracy which resembles that of feudalism. The "coal barons" and "merchant princes" are well-known phenomena. Furthermore these castes tend to protect themselves against possible inroads from the lower classes. In times of industrial expansion the "self-made man" is an actual phenomenon of considerable importance. He prevents the upper classes from "getting stale" through too much leisure time and easy living conditions. However he acquires bourgeois membership-character instead of remaining a potential leader of the "lower classes." The relative number of self-made men is an important index of the amount of economic freedom under capitalism. During the nineteenth century the number of self-made men increased rapidly while the real wages of the whole community also increased. At the present time the increase in wealth of the upper bourgeois has been phenomenal, while real income for the populace has on the whole fallen decidedly behind this, and the number of new self-made men has relatively decreased. All these factors point to the deepening of the class antagonisms within the national social field. This is true of all liberal democracies and has become so acute in many of them that fascism has ensued. We shall deal with fascism in the next chapter. The accumulations of vast fortunes which are passed on by inherit-

ance accentuate the unequal distribution of economic freedom under the liberal democracy.

The liberal democracy in theory should be self-regulating. Its governmental system is supposedly based on a system of checks and balances which is supposed to preserve the inalienable rights of the people to life, liberty, and the pursuit of happiness, *i.e.*, practically expressed, to the successful locomotions toward economic goals. Under certain circumstances the system is self-regulating. At the time of its adoption in countries of western Europe it functioned so that capitalism could develop. But the famous system of checks and balances actually was designed to assure the freedom of the earlier market from interference from the feudal system. From the time of its establishment liberal democracy has actually been controlled by the bourgeoisie by virtue of its superior degree of freedom of economic locomotion. In other words political freedom depends on economic freedom.

That the laws governing economic freedom are represented by barriers of various permeability in the different regions of the national field is nowhere more clearly seen than in the differences between civil and criminal law. The code of civil law is such that its violation is practically always punished simply by a money fine or property restitution. The litigants in civil law cases are practically always both members of the property-holding class. The court procedure is usually then one of defining the rules of the game between holders of property. Civil law is the method whereby checks and balances are held between the members of the upper bourgeois. Whenever proletarians must fight their cases in civil law courts, the economic freedom of the bourgeois is particularly decisive. The corporation lawyer is one of the best rewarded of all individual professionals.

The bourgeois except for violent crimes against persons seldom enters the criminal courts. Even when he does, he again has the advantages of his superior economic freedom in the employment of counsel. But the proletarian, himself propertyless, in his struggle for economic freedom often comes into the criminal courts. And locomotion through a property barrier by the proletarian is punished usually by imprisonment. Perhaps this is most clearly shown in the criminal syndicalism laws. Proletarians attempting to gain more economic freedom through constitutionally guaranteed rights are tried for criminal syndicalism and jailed. Bourgeois attempting

to gain more economic freedom through creation of monopoly capitalist trusts are sued in the civil courts and are acquitted or subjected to cash fines which not unfrequently remain unpaid. Thus the laws protecting property rights under liberal democracy guarantee freedom of economic locomotion to the bourgeois and guarantee that this freedom will persist.

We may summarize our discussion of freedom of locomotion under liberal democracy as follows. Economic freedom is basic to political freedom, personal-social freedom, and intellectual-action freedom. The bourgeois has much greater freedom economically than either the petty bourgeois or the proletarian. Consequently he has also more of the other freedoms in question. Through this superior economic freedom the bourgeois is also able to control the parliamentary procedure and through it the state.

5. The Control of the Liberal Democratic State

The liberal democracy was the state form created by the bourgeoisie. In its earliest forms suffrage was not considered a universal right as it is today but was limited to males of the bourgeois class.[1] The rights of suffrage assured the bourgeoisie of a right in the regulation of the new market. The laws were to be made by a parliament elected by the people. In the early days the people were the bourgeoisie. Today we have so-called universal suffrage under liberal democracy.

The mechanism of election and parliamentary control however is limited under the capitalist system by immediate economic factors. In the first place the political party becomes dependent for its continued existence on financial support. Secondly the press, and more recently the radio, is in the hands of the bourgeoisie. The people hence are limited in their choice of representatives to representatives of the bourgeois. Success in politics under a liberal democracy in general requires bourgeois support. At all events only the exceptional "friend of the people" can succeed without this support. Not only is support of the bourgeoisie necessary for political success under normal times, but the bourgeoisie are able to control political figures through direct bribes. The prevalence of graft under liberal democracy is so well known as scarcely to require comment. The bourgeoisie control the liberal democratic state by

[1] Not till the time of the French Revolution do we find wholesale demand for a more universal suffrage.

support of political parties favorable to their interests and by direct money bribes.

6. Fascism and Liberal Democracy

Fascism represents the unmasked control of the state by the bourgeoisie when a revolutionary situation threatens the stability of the existing state form, *i.e.*, where existing democratic methods become too costly in controlling the proletariat and assuring the bourgeois himself of economic freedom. At the present time the series of postwar capitalist crises have so accentuated the class struggle that capitalism is in danger of being overthrown by a successful workers' revolution. The fascist state seeks to enhance the basic characteristics of the liberal democracy, it is highly nationalistic, it seeks to perpetuate existing class lines, it seeks to assure the duration of the capitalist economic system. To do this it must sacrifice all tendencies of the capitalist system which under periods of expansion make toward increased freedom of social locomotion for the whole field. Consequently it may best be looked on as liberal democracy retrogressing to an earlier organizational form. From this viewpoint we shall in the next chapter deduce its chief characteristics.

7. Summary

In this chapter we have seen:

1. There are innumerable types of state, each dependent on total field structure. However, certain of these types may be taken as representative. We shall discuss liberal democracy and the fascist and communist dictatorships.

2. The origin of liberal democracy is in the bourgeois revolution and represents a state form suitable to the application of physical science to human service through the capitalist mode of production.

3. Field-dynamically the structure of the liberal democracy is a nationally bounded, class-differentiated field, where the *status quo* is preserved by force and the governmental apparatus is controlled by the bourgeoisie.

4. We distinguish political, personal-social, intellectual-action, and economic freedoms. All are greater for the bourgeois, and all depend on economic freedom.

5. The bourgeoisie controls the state through its superior economic freedom in political election and by graft.

6. Fascism represents liberal democracy retrogressing because of the threats of a proletarian revolution.

Bibliographical Note

The literature on the rise of liberal democracy is given in connection with Chap. XI. The classical description of the liberal democracy is that of Bryce(43). For a Marxian analysis of American liberal democracy see Corey(68). Standard texts on government and civics of course describe the liberal democracy in more detail than was possible here. *Cf.* also Buell(46), Laski(180), de Tocqueville(333). Concerning the bourgeois control of the state apparatus and its many implications see Chapin(59). *Cf.* also the popular autobiography of Lincoln Steffens(317) and Chamberlain's *Farewell to Reform*(57).

CHAPTER XX

TYPES OF STATE: THE FASCIST DICTATORSHIP

1. Field-dynamical Characterization of the Dictatorship

The abolition by force of the constitutionally guaranteed political freedoms, universal suffrage, freedom of speech, freedom of the press, and the like, which supposedly guaranteed the whole people a voice in the control of government, is the basic characteristic of dictatorship in modern times. Here again no dichotomy between liberal democracy and dictatorship is possible because, as the last chapter indicated, democracy is a relative concept, and in a society with marked economic classes political freedom is directly correlated with economic freedom and varies therefore for the individual according to his class membership-character. On the other hand in a modern state, *i.e.*, one which has been a capitalistic industrialized state, it is quite impossible for the country to be governed by the whims of any individual within it. Consequently there is little dynamical similarity between the role of the modern dictator and the primitive tribal chieftain or even the tyrant of the Greek city state. Popular thinking on the subject of dictatorship and democracy is very much confused because the popular mind has seldom made an operational analysis of the meaning of freedom of the will and the freedoms of social locomotion. Consequently, the apologist for democracy supposes that under it the will of the majority eventually governs the course of political events, even if occasionally such a rule is wasteful and inefficient and at times unable to cope with critical situations. The apologist for democracy furthermore sees the danger of dictatorship as the danger of a selfish tyrant using the whole people for his own immediate interests. Apologists for the dictatorship deplore the disability of the wills of the people to decide on a genuinely constructive policy for the people as a whole and see in the dictator a hero whose decisions are genial. These popular attitudes are well known to followers of the international press and political addresses. Thus press accounts in the United

States always report "Stalin decides" or "Hitler imposes further restrictions on the Jews" and editorials speak of the "inalienable rights of freedom under the constitution," etc. At the same time the press of Germany is much concerned with the geniality of the "Leader" and the inefficiency and chaos of our democracy. As we shall see, such views, which are essentially class-theoretical, are an important factor in the rise of the fascist dictatorship. As we pointed out in Chap. XVII, the individual dictator realizes his limitations and his responsibility to a political party or state policy.

Only on superficial analysis is the leader as an individual able to control his followers. The freedom of the leader depends on the total structure of the social field. The behavior of the leader depends on his personality, which in turn depends on his membership-characters. *Consequently democracy cannot represent the "will" of the people, nor can dictatorship represent the "will" of an individual. Liberal democracy while superficially the rule of the whole people is actually the rule of the bourgeoisie. A dictatorship in modern society can only represent the rule of a class through force alone rather than through persuasion and parliamentarism plus force.* In more primitive smaller societies, an occasional tyrant might have approached the individual dictator. In modern industrial society the dictator may only be the tool of the bourgeoisie, unless the underlying property relationships have been destroyed through a proletarian revolution. This situation, which leads to the communist dictatorship, will be discussed in the next chapter. This chapter will give the field-theoretical analysis of the fascist dictatorship. As an example we shall choose Germany under Hitler, although in general the form of government in Italy, Poland, Austria, and Hungary, is practically identical with that of Germany. The author is however more familiar personally with the German situation and also more familiar with the literature that deals with it. In the following sections we shall see how the Hitler dictatorship arose in a modern industrial state where there existed considerable economic and industrial unrest and the danger of a socialist revolution. We shall further see how the collectivist program originally stressed by Hitler was a field-theoretical impossibility after the establishment of dictatorial powers and how this program was abandoned, leaving an outright military dictatorship of the bourgeoisie. And finally we shall see how such a field-theoretical description of the fascist state organization allows us to deduce from it the existing degrees

of freedom concerning political, personal-social, intellectual-action, and economic locomotions.

2. Origin of the Fascist State

Fascism arises when liberal democracy fails over a long period of time to increase the degree of social freedom of the whole population. Not only does freedom cease to grow, it suffers temporary severe setbacks in the capitalist crises. For fascism to arise the liberal democratic state apparatus with its class alignments and its national character must be established.[1] The class struggle must be intensified owing to capitalist crises. The rural and urban middle class must stand threatened with expropriation and pauperization. Furthermore attempts at reform legislation under the existing economic system must be ineffectual. And finally there must be a fascist party financially supported by the bourgeoisie. Under these conditions fascism arises through the alignment of a sufficient number of votes from all classes for the fascist party to revoke the constitutional guarantees concerning political and social freedom. The government is then taken over by the bourgeoisie and ruled in its interests through the fascist dictatorship. Let us characterize each of these points a little more precisely.

1. *Fascism arises when liberal democracy ceases to increase social freedom.* From about the middle of the World War, with the exception of a short period between 1924 and 1928, German industrial production never even approached its prewar level. No European country completely recovered but Germany had the additional handicaps of her loss of raw materials and the war debt incurred after the Treaty of Versailles. The situation was such that it may be said on the basis of economic indices that social freedom was not increasing. The results of the war were further aggravated by the depreciation of the mark in the inflationary period of 1918–1923. During this period the mark became worthless and the classes which suffered most decidedly were the petty bourgeois and the proletarians with savings. The large industrial circles were enabled through the inflation to reduce their capital debt and were put in a position to expand rather rapidly during the minor boom of 1924–1928. This minor period of capitalist expansion, however, failed completely to solve the unemployment problem which in itself was a prime

[1] Feudal dictatorships by force do not represent fascism because of the economic differences involved.

source of social-psychological aggravation to the proletariat and petty bourgeoisie, nor did it do much toward raising the total standard of living, *i.e.*, increasing freedom of economic locomotion, despite all the social reform legislation under the social democratic governments.[1] Under the coalition central governments which followed the outright rule of the social democracies these social reforms were abolished and freedom of social locomotions was further limited. The petty bourgeois were almost expropriated at the time of Hitler's accession to power.

The period from 1914–1932 was a period of 18 years of economic hard times for Germany. The only real increases in freedom of social locomotion occurred in the bourgeois region. This, as shown by amount of foreign travel, possession of motorcars and luxury goods, and income increase, was almost entirely in this social region. The relative increase in income for this segment of the social field is even more striking. We shall return to this problem in connection with the problem of the expropriation of the petty bourgeoisie.

2. *Fascism arises only under the liberal democratic form of government, where the parliamentary state form has been established.* Thus the dictatorship of Primo de Rivera in Spain was not a fascistic dictatorship but rather a military dictatorship preserving the remnants of feudalism in the last western European feudal state. In Hungary, Austria, and Poland as well as Germany there had been parliamentary democracies before the fascists came to power. In Germany the Weimar Constitution represented the liberal democratic state organization in a very typical form. More rights were guaranteed than in practically any such document except the constitution of the short-lived Spanish Republic.[2] Under the Weimar Constitution the German had guarantees of political, social, and religious freedom. But the economic freedom which under liberal democracy is really basic to the other freedoms remained largely segregated in the bourgeois region.

The transition to a field of expanding freedom of locomotion through parliamentary methods became impossible in Germany. The social

[1] The reader is reminded that the German state changed from monarchy to republic after the war, and that during the period under consideration the strongest single party in Germany was that of the Social Democrats, or evolutionary socialists.

[2] Actually Spain superficially still has a republican form of government. Since the abortive revolution of 1934, however, the government has become openly reactionary.

class struggle on an economic basis continued with a growth in the Communist Party of Germany which was pledged to the destruction of the capitalist economic system. Government upon government proved itself unable to actually alleviate the situation. The German proletariat began to look upon the various political, religious, and social freedoms as meaningless. Through this period the Social Democratic Party, while actually attempting to make a transition to socialism, found their hands tied under the existing economic setup.

It must be remembered that Germany, under the smart of the Versailles treaty, remained strongly nationalistic. The movement against the war guilt clause of the Versailles treaty found immediate and widespread support. The nationalism which later became fantastic in the pogroms against Jews was present through the whole period. One might say that defeated Germany never recovered from the war psychology. The threat of reoccupation under the Versailles treaty hung always over the German and through most of this period territory which had the German national membership-character was occupied by Allied forces. The second step toward fascism is the presence of a poorly functioning parliamentary form of government in a social field of non-expanding or even falling degree of freedom of social locomotion.

3. *For the fascist state to arise, the petty bourgeoisie must suffer expropriation under monopoly capitalism.* The petty bourgeoisie, as we saw in Chap. IX, actually depends on wages and salaries for its income but usually owns a certain amount of property. It feels itself "the backbone of the nation" and "a cut above the laborer."[1] Its social-psychological attitudes make it tend toward political conservatism, and it has more bourgeois membership-character than proletarian. Its investments, however, are primarily in holdings which are wiped out by inflation. This was particularly true of the German petty bourgeoisie in the inflation of 1921–1923. Not only were the savings destroyed, but technological and economic unemployment became widespread among the petty bourgeois. The vast army of technicians and minor executives necessary to run the complex capitalist system of production and distribution are recruited almost entirely from the ranks of the petty bourgeois. They suffer unemployment, first, technologically, *i.e.*, through

[1] T. Veblen gives a good if methodologically outdated psychological picture of petty bourgeois self-sufficiency in *The Theory of the Leisure Class*(338).

introduction of more efficient methods of production and distribution, and, secondly, economically through the layoff in times of industrial depression. Thus in Germany, first through the loss of their savings and secondly through unemployment, the petty bourgeois became pauperized. But they had known a certain degree of economic freedom and their social psychology remained essentially bourgeois. Some of the younger and more intelligent of them began to drift immediately toward communism but the vast majority were simply confused and unhappy.

The industrial depression was preceded all over the world by a great agrarian depression. Thus the German petty bourgeois farmer found his economic freedom limited even before the petty bourgeois. The farmer being a landholder of some sort is invariably a more conservative individual than the urban bourgeois.[1] His form of labor is furthermore usually individualistic rather than collectivistic and he has less chance for organizing. Thus in the third place the German petty bourgeois both urban and rural found himself economically with the proletariat, but retained much of the social psychology of the bourgeoisie.

4. *The class struggle must gradually force more and more workers to communism.* The fascists themselves emphasized the danger of the overthrow of the bourgeois government by the proletarians. The growth of the vote of the Communist Party was almost continuous through the twenties. This increased vote came largely from the individuals who had previously voted the Social Democratic ticket. Furthermore the conditions indicated that the communist vote would have advanced more rapidly had it not been for the fascist revolution. Fascism arises when under the other conditions already mentioned, communism menaces the capitalist system of production.

5. *The attempts at reform legislation must become unsatisfactory to both the proletariat and the bourgeoisie in order that fascism arise.* In Germany, the advent of fascism was marked by a cut in social insurances and services which thoroughly dissatisfied the proletarians, but which were not considered adequate by the bourgeois large industrialists. The danger of "failure of government credit" caused by the "extravagance" of the Social Democratic Party became one of the strong arguments of the Fascist Party in Germany. The capitalist system could not in a period of economic depression

[1] *Cf.* Bukharin(47) and the section quoted from him in Chap. VI.

afford the social legislation necessary that the social field increase in freedom of social locomotion.

6. *The Fascist Party, whose aims will be the subject matter of the next section, gains the financial support of the bourgeois industrialists, who realize that continuance of a liberal democratic form of government threatens their rule.* In Germany Hitler and the National Socialist Party had the heavy financial support of most of the large industrialists before its electoral success.[1] *The fascists take power under the apparatus of liberal democracy in order to destroy the parliamentarism which threatens capitalism. Since the liberal democracy is based on a capitalist system of economic freedoms, capitalism cannot be changed by democratic methods.* Whenever democratic methods threaten to overthrow it, liberal democracy which has always been under the control of the bourgeoisie, is destroyed. Fascism is simply the extreme defense reaction of capitalism when anything else might mean capitalism's overthrow. And as we shall see, capitalism may be preserved only by a retreat to a lower degree of freedom of social locomotion for the whole social field. With the advent of fascism liberal democracy is forced to admit that it is powerless under the capitalist system to fulfill the promises it held out at the time of adoption.

To summarize then, the liberal democratic form of government is field-dynamically unable to restructure itself for its own continuance under certain conditions. Fascism arises when (1) there is continued fall in the degree of economic freedom for the proletariat and petty bourgeoisie under (2) the liberal democratic state form. (3) The petty bourgeois are being declassed through pauperization. (4) There is a danger of a proletarian revolution. (5) Social Democratic reforms fail, but (6) a Fascist Party financially supported by the bourgeoisie creates enough support to revoke constitutionally the guaranteed freedoms of liberal democracy.[2]

3. The Aims of the Fascist State

If one disregards all purely emotional, chauvinistic, blood and thunder arguments of the fascists, the fundamental aims of fascism become clear. Fascism in the face of great industrial unrest promises *stability*. Its slogan is "discipline and work." But this work is to

[1] *Cf.* Palme Dutt(90) and Schuman(297).

[2] A further condition might be that the army and police are given to the support of the fascist program. Concerning this point see Heiden(136).

occur under the existing economic system of property relationships. Such reforms as it really contemplates are aimed at creating, through retrogression if necessary, an alignment of social forces which will prevent class unrest. Thus Hitler promised to all classes the recreation of the industrial setup of an earlier capitalist period through the creation of a sort of state capitalism. The workers are promised employment, but the unions which attempt to regulate the condition of this employment, being creative of struggle, are outlawed. In addition the workers are deprived of their voice in the government. The middle class is promised the breakdown of the large monopoly enterprises so that the entrepreneur of an earlier capitalism may again emerge. But they too must give up political power. The bourgeoisie are promised, even assured, regular limited profits, but are subjected, theoretically at least, to capital levies to make possible employment for the unemployed proletarians and to create enterprises for the petty bourgeoisie. Officially the bourgeoisie too give up political rights. But the government remains and the party controls it. And, as we have seen, the party itself is controlled in the interests of the upper industrial bourgeoisie. The aim of the fascists is not to create any merely temporary control. The avowed aim is that the dictatorship be self-perpetuating and permanent. Thus Hitler states that fascism is here for at least one thousand years. It is important to stress this point for we shall see that the communist dictatorship does not aim at permanence.

All this is done with an extreme and provocative nationalism. In other words the national membership-character becomes of overwhelming potency. The status of wartime social psychology is maintained so far as possible in peacetime and the possibility of a war is always held open. The attempt is made to increase national solidarity and national membership-character potency by all sorts of real and fictitious arguments. So, for instance, the defeat in the World War and the humiliations of the Versailles treaty are widely attributed to the so-called "International Jewry." Similarly the communists are considered foreigners and non-Aryans. The fascist state thus attempts to perpetuate two basic factors of liberal democracy, its nationalism and its economic class structure, by forcefully prohibiting the political and social freedoms which were supposed to enable the free citizen of a liberal democratic state to change it. The only basic belief of the fascists which has an iota of soundness

is the belief that unless the capitalist state is protected it may become self-destructive. In other words under a continuation of political democracy the communists might have acquired a real electoral majority. The fascist theory, in so far as fascism has any *rational* theory, is based on the belief that it is possible, through a strong central government, to regulate capitalism to the extent that a certain stability may be maintained in economic relationships by enhancing nationalism and by sacrificing (although the fascists consider these things a curse) political and social freedoms. The economic freedom is to remain in general as it stands and regulated only so far as is necessary to prevent racial suicide through starvation of the proletariat. Political, personal, and intellectual-action freedom are to be strictly regulated by the dictatorship. This much of fascist theory is worthy of critical consideration. It is basic to all fascist practice and can be sifted out of the unbelievably verbose and irrational treatises of the fascist leaders. Theories of racial destiny and other such mysticisms are not worthy of scientific credence at all. The Aryan myth has been refuted by all sound anthropological research.[1] The following quotations from German, Italian, and British fascist leaders is indicative of the general intellectual level of fascist theory.

Hitler defines the State as having "nothing to do with any definite economic conception or development." It is, he says, "the organization of a community homogeneous in nature and in feeling, for the better furtherance and maintenance of their type and the fulfillment of the destiny marked out for them by Providence." [From A. Hitler, *Mein Kampf*, (English ed.), p. 69.]

And Mussolini, in defining fascism, speaks with contempt of "doctrine," and exalts "faith":

"Doctrine, beautifully defined and carefully elucidated, might be lacking: but there was to take its place something more decisive—faith." [From B. Mussolini, *The Political and Social Doctrine of Fascism*, p. 10.]

And Mosley's British Union of Fascists, in its short definition of Fascism, declares:

"We believe in the cooperation of all classes in the solidarity of all units of a nation, and in justice. And in the mystery of patriotism." [Quoted by P. Dutt (90)].

Are the Aims of the Fascist State Obtainable?—There is no a priori basic reason why such a form of government should not

[1] *Cf.* Radin(277).

persist provided that it is able to keep the economic freedom of all classes above a certain minimum. The average proletarian will be happy with very modest comforts and the average petty bourgeois with very little more. There is no innate desire for any particular type of social or religious or political freedom. In fact, politics are a bore to most men, and provided the social freedom does not become too limited, a dictatorship might well endure for ever.

There are three factors, however, which make it extremely unlikely that fascism will have any such permanent success. They are, first, the fact that actually the Fascist Party is controlled by the bourgeoisie and run in accordance with their interests. This is daily becoming more clear to all disinterested and competent observers. All the promises of the National Socialist Party concerning the breakup of large estates and monopolistic capital enterprises remain unfulfilled. The real wages of the German worker (consequently his degree of freedom of economic locomotion) have fallen sharply, while industrial profits have risen. The petty bourgeois instead of being led back to his former independence is more and more becoming pauperized. Under such conditions (*cf.* Chap. IX) the class struggle is enhanced and class membership-character must gain in potency. More and more force is required to hold down the proletariat. Secondly, the required minimum standard of living cannot be guaranteed under fascist capitalism. In other words the economic freedom will depend on international capitalist crises. This has been adequately demonstrated in both Italy and Germany. Thirdly, the extreme nationalism, in itself probably a product of monopoly capitalism, must eventually end in war. It is very doubtful if the patriotism of the fascist states could stand another war. The fascist leader is caught in the dilemma of being forced to attempt to raise the potency of national membership-character to offset the rising potency of class membership-character, in face of his knowledge that the increased nationalism will lead to war. The only way out of this dilemma is for him to win the war. Now despite the widespread liberal opinion that no one wins in a modern war, certainly no one would claim that both sides are equally defeated. Among the many fascist states certainly there will be seriously defeated parties. And defeat may well mean overthrow of the fascist government by a proletarian revolution. Fascism simply cannot succeed unless there is a return of expansive industrial prosperity under capitalism. And under such conditions it would

also disappear, because it is an unnecessarily expensive and cumbersome method of state control when it is not essential to bourgeois rule.

The socialistic aims of the fascist state could only be carried through by a thorough change in the economic system. Since fascism arises to protect this system it cannot hope to change it. Consequently the fascist state from the long view may only be defined as a makeshift or temporary retreat.

4. The Degrees of Freedom of Social Locomotions under the Fascist State

The fascist state is the dictatorship of the bourgeoisie, *i.e.*, the establishment of the rule of the bourgeoisie by force. Field-dynamically under fascism the highest degree of social freedom remains in the bourgeois sector of the national social field. The petty bourgeoisie decreases decidedly in social area; it is, so to speak, squeezed out between the proletariat and the bourgeoisie. When fascism is first established large groups of the political supporters of the Fascist Party remain as armed bands in order to enforce the barriers placed in the way of the political and social freedom of the proletariat. These however are dissolved as soon as they become a source of danger to the bourgeoisie and a military dictatorship may replace the fascist form. Thus in Germany today the original power of Hitler's Storm Troops is already much diminished. The attempt is made not only to decrease the permeability of class boundaries, but to create for practical purposes impermeable boundaries. In both Germany and Italy there have been profit guarantees to established businesses. Hitler has also attempted to recreate a permanent peasantry. Furthermore the barriers to social locomotion within the subregions of the petty bourgeois and the proletarian areas of the national field are greatly increased with regard to frequency, but decreased with regard to permeability. We shall give the phenotypical description of the various barriers to freedom of social locomotion after a discussion of the role of the Fascist Party and its armed force in the dictatorship.

To establish any dictatorship within a liberal democracy, an armed force is necessary. The existing police force and army in themselves must "come over" to the program of the dictator before the dictatorship may be firmly established. The dictator however must have a considerable number of disciplined armed followers,

who are to exert the necessary pressure on the regular police and army, and who become subordinates in the government on the taking of power. The Nazi Party in Germany had this type of organization.

The S.A. (*Sturm Abteilung*), or storm troopers, represents a private army of the Nazi Party of some 2,000,000 men. Not all of these had actual membership in the party. In addition the S.S. (*Schutzstaffel*), or Protective Corps, of some 10,000 men, most of whom were party members, represented an even more highly trained private army. These individuals were under the direct command of the Nazi Party and subjected to a rigorous discipline. They were, furthermore, permitted by the existing Social Democratic government despite the fact that their avowed aim was to overthrow this government. Employment in the services of a political party did much to relieve the tension created by the depression and in the early days hence helped to ease the internal situation.

During the period before the Nazi Party came to power these armed bands served two functions. They, first, enhanced the prestige of the Nazi Party with the petty bourgeois and certain disgruntled proletarians by furnishing work. Secondly, their nationalistic fervor made them popular, because of the smart of the Treaty of Versailles, with large sections of the German people. Furthermore they seriously hampered by actual attacks and show of brute force the attempts of the communists to further their organization for proletarian revolution. Consequently the Republican government (*i.e.*, the Social Democrats) allowed them to grow up into a tremendous force, unmolested. To a certain extent under the existing form of liberal democratic state the government could have done nothing else.

After the "seizure of power," this private army, while remaining private in name, firmly established the dictatorship. It did this first by enforcing the decrees of the party and dictatorship and secondly by terrorizing into non-existence the organized and open opposition. Thus opposition to the existing government under the dictatorship becomes illegal and is punished not only through the regular courts but through a reign of terror. Now let us see what the fascist dictatorship does to the various freedoms outlined in the last chapter.

Political Freedom.—Political freedom is first abolished completely under the fascist dictatorship. The fascist theoretical reasons for

doing this have already been discussed briefly. The indecision and waste of democratic forms is considered one of the chief causes of industrial unrest. There is no inherent need for a class struggle; when it exists it is caused by agitators or by monopoly finance capital in its own interests. Political freedoms, freedom of speech, assembly, freedom of the press, academic freedom, freedom of the stage and pulpit, are considered by the fascist theorists of a very doubtful value. Field-theoretically of course the political freedom is abolished because it threatens the stability of capitalist economic freedom. This I believe has been adequately shown in the first section of this chapter.

Political freedom is furthermore always diminished under very high potency of national membership-character. We have already seen how it invariably diminishes in times of war. The abolition of political freedom enables the fascist state to increase chauvinism.

The Fascist Party first dissolves parliament or reestablishes it on the basis of only one party. Hence in Germany today only the National Social Party is legal. Such a mock parliament is only decorative and the whole legislative function of the government goes into the hands of the dictator and his party. The control is further established by the leader's assuming many posts or requiring a special oath of fealty. The judicial system of the liberal democracy is also placed in the hands of the dictator. In Germany today there is required absolute obedience to the orders of Hitler and laws are promulgated practically through his decrees. The dictator, it must be remembered, is not a free agent but controlled by the existing field dynamics and can act only in the interests of a class.

With parliament dissolved, the other barriers to the freedom of social locomotion are quickly erected. The parties other than fascist are outlawed and with them their party organizations. Then comes the press. The "Reichsverband der deutschen Presse" defines the freedom of journalism solely in the interests of the Nazi Party. Freedom of speech is completely abolished. The German who speaks of Stalin, let us say, with respect and of Hitler with disrespect is soon incarcerated. The censorship of the stage and cinema is complete. Even the concert stage is restricted to offering the works of Aryan composers. The universities are strictly muzzled. The abolishment of political freedom, however, field-

dynamically means only a limitation of degree of freedom of social locomotion for certain regions of the social field. The political activity on behalf of the Nazi Party is unlimited, and assumes to the outsider always very fantastic and sometimes even disgusting forms of expression.

Intellectual-action Freedom.—This change is very striking to individuals who were cognizant of the political freedom existent in Germany under the Weimar Constitution. The National Socialist Party replaced some seventeen individual parties of the liberal democracy. The press was of all colors from the extreme nationalism of the *Deutsche Allgemeine Zeitung* to the communism of the *Rote Fahne*. The stage and cinema were able to present films which would have been censored in many of the countries of western Europe. The universities enjoyed an academic freedom and a scholastic prestige second to not another in the civilized world. In terms of index assignations the degree of freedom of political locomotion was very high in Germany until the advent of national socialism. Today there is no freedom of political action except where such action serves to increase the prestige of the National Socialist Party. In discussing political freedom, we have also discussed most of the locomotions toward what we previously called intellectual-action goals. This was necessary because much of the intellectual-action in Germany was concerned with direct political matters. The degree of freedom of intellectual-action toward other nonspecifically political goals has also been diminished under the fascist dictatorship. Physical science has, as was to be expected, suffered least from these restrictions. But all biological and social science has been limited in its freedom of research and expression, in some cases so seriously that today German science has completely lost its old prestige.

Religious freedom has been diminished under the fascist dictatorship. The church has semiofficially been put under state control. The vast number of freethinkers in Germany find themselves under great pressure to join, if not a Christian religion, one of the groups concerned with recreating the old Germanic Teuton religions. The fall in church independence in Germany exactly parallels the fall in church independence under the extreme nationalism of war. The pacifistic elements in the German church have been so completely driven under cover that the situation is similar to a real war situation.

Personal-social Freedom.—The degree of freedom of personal-social locomotion is likewise diminished under national socialism for all classes except the bourgeoisie. The freedom and conditions of social intercourse for the proletariat and petty bourgeoisie become decidedly limited. There is the attempt made to force marriage, homekeeping, and child-bearing on the German female. The old slogan of "Kirche, Küche, und Kinder" appears again. Not only is education limited in its goals and methods, but the educated are severely reduced in number. The sexual mores and the condition of women and education are so closely related to the problem of economic freedom that we shall discuss them under that aspect.

Economic Freedom.—Economic freedom has suffered the most serious blockages in the proletarian and petty bourgeois regions of the social field. Actually it has become greater for the bourgeois. Here we must review briefly the theory of national socialism. The proletarian, supposedly, is to be insured against unemployment, but he is also insured against bettering his position. To help the unemployment situation, the principle of leadership is introduced to take the place of the previously guaranteed rights of collective bargaining. The proletarian hence becomes completely dependent on the decrees of the National Socialist Party. His economic position has not been bettered. In fact the real wages of German workers have fallen decidedly. The result is that, at the present, the degree of freedom of economic locomotion approaches zero in the proletarian field. The rural petty bourgeois are promised stability. Actually they become tied to the soil. The urban petty bourgeois are promised the possibility of establishing enterprises but the promise is so far unfulfilled.

Only the large industrial bourgeoisie has a higher degree of economic freedom. Reasonable profits are assured but capital levies threatened in order to recreate national stability. In actual practice industrial profits have increased some in most industries, and highly in the heavy industries. Consequently all freedoms for the proletarian and petty bourgeois have been destroyed and the economic freedom of the bourgeois increased, while through his economic freedom, he retains much political, personal-social, and intellectual-action freedom. *The fascist dictatorship is in practice the dictatorship of the bourgeoisie as a class and is neither the rule by an individual genius (Hitler), nor, as has been claimed, the rule by the petty bourgeoisie of a unified nationalized people.*

In Table 7 we give in tabular form index figures illustrative of existing and purposed future degrees of freedom of social locomotion for the various classes under the fascist state. For comparison purposes this chart also includes the same data for liberal democracy and for the communist state, which we shall discuss in the next chapter.

In considering this table as well as the succeeding one (Table 8, Chap. XXI) the following points must be taken into consideration. In the first place the index figures represent (as usual) non-metricized dynamical assignations rather than metrically valid measurements. Secondly, since we are interested in dynamics rather than statics,

TABLE 7.[1]—EXISTING AND PURPOSED FUTURE DEGREES OF FREEDOM FOR THE VARIOUS CLASSES

	Under liberal democracy						Under fascist dictatorship						Under communist dictatorship			
	Existent			Purposed			Existent			Purposed			Existent			Purposed
	B	PB	P	B	PB	P	B	PB	P	B	PB	P	B	PB	P	Classless
Economic	4	3	2	>	>	>	4	2	1	> or c	> or c	> or c	1	2	3	>>
Personal-social	4	3	2	> or c	> or c	> or c	3	2	1	c or <	c or <	c or <	1	2	3	>
Intellectual-action	4	3	2	> or c	> or c	> or c	3	2	1	c or <	c or <	c or <	1	2	3	>
Political	4	3	2	> or c	> or c	> or c	3	2	1	c or <	c or <	c or <	1	2	3	>

1, 2, 3, etc. = degrees of freedom of social locomotions. > = to increase. < = to decrease. c = to hold constant.

[1] The index figures in the chart may be accurately compared for liberal democracy and the fascist dictatorship only where both are applicable to Germany. Those on communism, while they attempt to estimate the freedoms enjoyed under communism relative to those of fascism, are given for purposes of comparing the purposed changes. In the next chapter we shall give a similar chart comparing Russia under Czarist regime and under the communist dictatorship. Separate classes are not given under the "purposed" rubric under communism as it is the aim of communism to abolish classes. Where two designations are given the purposed goal has not been clearly enunciated by the leaders. Consequently, > or c, and < or c, are to be read increased or held constant and decreased or held constant respectively.

they are meant to be comparable only within the limits suggested on the chart. Thirdly, a comparison between the various degrees of different sorts of freedom is as meaningless as the comparisons of four oranges with two horses.

The table however allows accurate comparison of both existent and purposed degrees of particular freedoms for the various economic classes within the existing state forms.

5. "Backward" Trends under Fascism

From the above field-theoretical description of the fascist dictatorship we may deduce the necessity for certain "backward" sociological trends under it. We use the word "backward" in quotation marks advisedly. Progress and retrogression are highly evaluative concepts and the scientist should be very careful with them. From the standpoint of what have usually been considered the avowed aims of progress under liberal democracy, however, the fascist dictatorship must be looked on as retrogressive. Hitler himself in his autobiography, *Mein Kampf*, in passage after passage admits his admiration for the earlier forms of government, even for certain aspects of the feudal system. He never tires of expressing his admiration for the disciplinary value of the medieval Catholic Church. And all the fascist theorists stress what they are inclined to call the decadent aspects of democracy, such as increase in rational behavior over emotional behavior, increase in socialist education for the masses, decrease in the aggressiveness of war and personal combats. Thus phrases, which seem almost lunatic to the liberal, have been adopted as slogans by the National Socialist Party. "We think with our blood," "Better a Christian prostitute than a Jewish housewife," "Kirche, Küche, und Kinder," "Hitler is the world's greatest mathematician," "the mystery of patriotism," "the greatest significance is given to life in bloody conflict," etc., are examples of these. Much of what passed as "progress" in Germany until 1925 and still to a great extent passes as "progress" in the United States has been purposely thrown aside by the fascist dictatorship. Furthermore these things had to be thrown aside in the interests of the dictatorship of the bourgeoisie under a capitalism which was failing to expand. If one does not wish to speak of "progress," one may still say that the fascist dictatorship forcefully sets up social institutions which the vast majority of "civilized"

people thought had been outlived many years ago, and places barriers before certain social locomotions toward goals which were considered progressive and proper until fascism arose. So whether we use an evaluative concept of "progress" or simply talk in terms of historical forms of society organization, we may still profitably outline the "backward" trends under fascism and see why they are related to the dictatorship of the bourgeoisie. In the next chapter we shall speak of the regulation of the same locomotions under the communist dictatorship, because here the basic differences between fascism and communism are most clearly to be brought to light. We shall deal with these *trends* under general headings.

As we found it necessary to place the designation "backward" in quotations to avoid misunderstanding, we have also emphasized the word *trends* by italics. We emphasize trends to indicate that our interest is in the dynamic change rather than the static conditions of the situations covered. It is quite essential to keep this distinction in mind. A superficial spectator of Berlin's Unter den Linden and Moscow's Red Square might well consider the following lines and parts of the following section inaccurate, even prejudiced, on the basis of his observations. Unter den Linden today looks much as it always did and on it one sees orderly, fairly well-dressed, cultured-appearing Europeans. The Red Square is apt to be crowded by workingmen in working clothes, not too orderly and perhaps not appearing over "cultured." But if we examine the Russian and German cultures in terms of dynamic changes in genotypes quite a different impression will be gained. In short we must not lose trace of the fact that twenty-five years ago Russia was a backward semifeudal agrarian nation with a particularly low standard of both living and culture and Germany was the most industrialized nation of continental Europe, with a high standard of both living and culture.

The Fine Arts.—German modern architecture was undoubtedly the most interesting in the world under the republic. All over Germany the attempt was made to create hygienically and economically adequate modern housing, through the use of modern material and machinery. The fascist regime has done much to suppress this modern architecture. The reason it had to do so was that the leaders in the modern movement inclined to be liberals or even political radicals. At the present time there is an emphasis on the architecture of the nineteenth century, which few critics

would consider aesthetically desirable in any way. A similar state exists with modernism in painting and music. Berlin was the musical center of the world during the early twenties and also an important center for the plastic arts. This progressivism in music and the plastic arts has been forcefully blocked. No new operatic works of artistic merit have been produced under the Hitler regime. Wagner, supposedly for his nationalism, has been emphasized to the exclusion of all more modern composers. In the early days of German fascism, jazz music was prohibited as being internationalistic and dance orchestras were forced to play German waltzes. Most of the creative plastic artists have been forced to leave Germany. Similarly, of the literary artists known out of Germany only a handful remain. Likewise the theater, the cinema, even the radio have suffered. The creative artist has practically always been the harbinger of social change and evolution. That such individuals must fare badly under a state whose only aim is to maintain the *status quo* is quite obvious.

Education and the Sciences.—Until the advent of fascism the German public school system was one of the best in Europe and its university system probably the best. One of the chief beliefs of the apologists for liberal democracy has been in the boons of increasing the educational process. Its chief adherents have always looked forward to the day when education would be free and compulsory. At the present time the enrollment in German schools and universities has been sharply diminished.[1] Jews and women are practically prohibited from attendance at the universities. So many famous liberal and Jewish professors have been dismissed that their future has become a matter of international concern. Psychoanalysis, Marxian sociology, and certain philosophies have been banned from the curriculum. All the biological and social sciences have been censored. The old sound German science has been replaced by many scientifically unsound, even monstrous doctrines. Like the arts, education and the sciences are concerned with a changing world order. Fascism denies any such change and hence must suppress education and science.

The Position of National Minorities.—Under liberal democracy there is a widespread belief that national minorities should be protected in their civil rights and should even over a long period of

[1] In 1934 only one-third as many new students were accepted as in previous years and these enrolled only after they had spent six months in a labor camp.

time be assimilated into the national racial stocks. If the minorities have a cultural or economic disadvantage it is always hoped through education, charity, and "uplift" gradually to better this condition. In the United States, for instance, the whole trend of liberal opinion from the period of the Civil War was toward a betterment of the condition of the Negro. Similarly in Germany under the Weimar Constitution the Jew was guaranteed for the first time in Germany complete equality of civil rights. So much has been written and said concerning the persecution of German Jewry under fascism that it would be superfluous to do more than mention it here. The anti-Semitism of fascism represents first a return to the anti-Semitism of semifeudal times in Germany and secondly a cloak under which fascist demagogy may hide the more basic economic failures of its internal policy.

The Position of the Rural Family.—In Chap. XII we saw that the trend under liberal democracy was toward an urbanization of the rural family and toward decreasing potency of familial membership-character. In other words the rural family tended less and less to be tied to the ground and more and more to enjoy the greater freedom of social locomotion which increasing industrialization allows modern man. This tendency was also discernible under republican Germany. Under fascism there has developed a movement for the recreation of a permanent and hereditary peasant class. Such a trend may only be looked on as "backward."

The Position of the City Family.—As the rural family becomes urbanized the city family loses its potency of membership-character under liberal democracy. In Chap. XII we saw how more and more functions of the primitive rural frontier family were being taken over by the social class groups, national groups, and various minor groups. Typical of this change are the reduction in authority of the nominal head of the family, increased social freedom for the women members of the family, and in general greater social mobility in familial affairs. Under fascism the doctrine of leadership is applied to the family so that the father again becomes head of the family. Furthermore the already mentioned slogan of "Kirche, Küche, und Kinder," reduces the freedom of women almost to that of feudal times.

The Position of Women.—During the last three centuries liberal democracy has brought about the gradual social, economic, and political emancipation of women. At the breakup of feudalism

the position of the average woman was that of the chattel property of her husband. She was sexually bounden to him without the right of divorce. Economically she was completely dependent on father and husband. She had no suffrage. Her education was limited to the domestic and decorative arts. Under liberal democracy we find the growth of the rights of divorce and even the single standard in sexual affairs, the increasing participation of women in business and industrial affairs, the gradual granting to women of suffrage, and women's admittance to institutions of higher learning. Even today in the United States, for instance, the woman *cannot* be said to have a social, economic, or political status equal with the male, but at least she approaches it. And similarly under republican Germany the woman enjoyed a greater freedom than ever before. Under fascism there is a direct reversal of this whole tendency. Women are again almost the chattel domestic servants of their husbands; they have lost the rights of social, economic, political, and educational freedom.

Sexual Hygiene.—The biological science of the nineteenth century began to understand a great deal about both the processes of human reproduction and the general significance of psychosexuality (Chap. XVI). The application of this knowledge enabled humanity to undertake the rational control of births and lead a proper and biologically healthful sexual life. In republican Germany there were widespread birth-control and psychoanalytical clinics. Both sorts of these clinics have been abolished under the Hitler regime. Birth control is frowned on and psychoanalysis practically forbidden today.

Social Insurance.—Under liberal democracy social insurance is usually considered a progressive means of limiting the suffering caused by accidents.[1] By social insurance we mean unemployment, sickness, accident, and death benefits. Republican Germany had a system of such social insurances probably second to none in the world with regard to the number of people covered and the benefits involved. Although certain aspects of this system have been continued under the fascist regime, on the whole the German system of social insurance has been badly set back by it.

Attitude toward War and Internationalism.—The slogans of "The war to end all wars" and "The war to make the world safe for

[1] The United States has been slow to adopt social insurance, but recent events indicate that it is now in great favor.

democracy" are still ringing in the ears of all Americans over thirty. On the surface at least liberal democracy claims to abhor war and work for international amity. The whole trend of the so-called Stresemann[1] policy in republican Germany was to this end. Today it is generally realized that fascism must lead to war. We have given the reasons for this above. That this viewpoint is not only that of the avowed antifascists is attested from a recent speech of Winston Churchill, a British conservative statesman.

> There is a factor that dwarfs all others, a factor you will find affecting the movements of politics and diplomacy in every country of Europe [cried Mr. Churchill]. . . . Whatever you believe, I venture to submit we cannot have any anxiety comparable to the anxiety caused by German rearmament. . . .
>
> The whole of Germany is an armed camp and the industries of Germany are mobilized for war to an extent that ours were not mobilized even a year after the Great War began. The Germans are even able to be great exporters of munitions, as well as developing their own enormous magazines. We have no prospect of equaling the German air force or overtaking Germany in the air in the near future, whatever we do.
>
> The Italo-Ethiopian war is a very small matter compared with the dangers I have just described. . . . It was the fear of a rearmed Germany that led France to settle her differences with Italy at the beginning of the year. It is very likely that what is called a free hand in Ethiopia was thrown in. . . . It is upon the basis of German rearmament and French apprehension that the Italo-Ethiopian war and the dispute between Italy and the League can alone be properly considered. . . . [From *Time*, Nov. 4, 1935.]

Similar, in fact almost identical, "backward" trends have occurred in all other fascist states. In its reactions to nearly all progressive trends the fascist state may be said to be moving backward, and it must do this if change is even temporarily to be halted. Its success depends on its possibility of retaining inner stability under the existing field structure. But that is field-dynamically impossible unless a certain amount of freedom of social locomotion is assured the classes which fascism attempts to keep stable. All evidence points to the fact that such is not occurring. The high nationalism under fascism will give way to class warfare unless an international conflict occurs. We shall return to this problem in the next chapter.

[1] *Cf.* Cole and Cole(64).

6. Summary

In this chapter we have seen that:

1. The fascist dictatorship is the rule of the bourgeoisie through force. It arises on the basis of the instability of the liberal democratic state.

2. The characteristics of the internal field structure necessary for the rise of fascism were given.

3. The aim of the fascist state is to recreate capitalist stability by removing those freedoms which threaten it.

4. The degrees of freedom of social locomotion vary for the class regions of the national field under fascism. Fascism represents the curtailment in personal-social, intellectual-action, and political freedom of all the classes in the interest of economic freedom of the bourgeoisie.

5. The "backward" trends under fascism were outlined and their necessity explained.

Bibliographical Note

It is typical of fascist theorists that they write little which is scientifically even worth criticizing. The bible of the German fascist is Hitler's *Mein Kampf*(148). The most considered economic discussion of the corporate state is that of the Italian Pittigliani(272). Mussolini(253) has written an apologia but little more restrained than Hitler's. I shall not take space to speak of the various paeans of praise for fascism from Hitler's and Mussolini's lieutenants.

Analyses of fascism from without are numerous. Among the best are those of Schuman(297), Lasswell(183), Heiden(136), Strachey(320), Palme Dutt(90), Cole and Cole(64). I have drawn on all of these rather heavily in preparing this chapter.

CHAPTER XXI

TYPES OF STATE: THE COMMUNIST DICTATORSHIP

1. Field-dynamical Similarities and Differences between the Fascist and Communist Dictatorships

Similarities.—The communist dictatorship, like the fascist, openly abolishes previously guaranteed freedoms of social locomotion in certain regions of the social field. Like the fascist dictatorship it is the rule of a class based on armed force. As with the fascist dictatorship, barriers are imposed against locomotions which had previously been possible, and barriers are removed making previously impossible locomotions possible. The communist dictatorship abolishes completely the political apparatus of liberal democracy, prohibits freedom of speech and assembly, greatly restricts the suffrage of certain elements in the population, and establishes an entirely new sort of governmental entity, the soviet. Webster's New International Dictionary defines soviet as follows: "A council in the Union of Socialist Soviet Republics, established as a result of the Russian revolution of 1917 and by the constitution of the Republic of July, 1918, and later by the constitution of the Union, July, 1923. These soviets are the primary organs of a government based on the principle of communism, seeking to give the power to the working classes. They are the supreme local authorities; consist of representatives, chosen annually, of workmen (elected by shops, organizations, etc.) soldiers, and peasants; and send deputies to the higher soviet congresses: volosts (rural district), uyezds (county), guberniyas (provincial), oblasts (regional), and the congresses of the constituent republics. All these soviet congresses meet annually. The highest governmental body of all is the Union Soviet Congress, composed of representatives of town soviets and of representatives of the provincial soviet congresses. This congress elects the Union Central Executive Committee." Actual control as under the fascist dictatorship comes into the hands of a political party. And like the fascist dictator, the communist dictator becomes on superficial analysis the ruler of the country.

However, the same general considerations which led us to emphasize that the fascist "leadership" is only apparently the leadership of an individual also lead us to point out the impossibility of the communist leader imposing his particular "will" on the country. Stalin, the Russian dictator, as we pointed out before, realizes these limitations on the power of the dictator and constantly emphasizes them in his written works. *The communist dictatorship like the fascist is the rule of a party in the interests of a class.*

Differences.—That the class in whose interest the state operates in a communist dictatorship is the proletariat makes the differences between the two dictatorships even more striking than the similarities. The basic "purpose" of the fascist dictatorship is to assure freedom of economic locomotion to the bourgeoisie. The basic "purpose" of the communist dictatorship is to assure freedom of economic locomotion to the proletariat. Since we have seen in the last chapters that it is necessary to relate all degrees of freedom of social locomotion to economic freedom, and since under monopoly-finance capitalism, particularly during the capitalist crisis, the class struggle is accentuated, this variance in the class basis of the dictatorships makes them as different from each other as black from white. The similarities from the standpoint of a field-theoretical analysis are of a very superficial nature, the differences are basic. Both can perhaps most readily be seen in the chart (page 401) which gave the existing degrees of freedom with regard to the various social locomotions and the avowed aims of both dictatorships with regard to the various classes. The possibility, field-dynamically, of either dictatorship's arriving at its ends will be considered in detail in the course of this chapter. From the chart it is obvious that the existing freedoms with regard to the existing classes differ considerably in Germany and in the U.S.S.R. It should also be quite obvious that the aims of the two dictatorships are diametrically opposed.

Popular thinking and writing (as well as much which claims to be scientific) are confused not only regarding the "power" of the dictator but also regarding freedom under the dictatorship. The liberal in his expressions of horror at dictatorship, firstly, fails to realize that the dictator may rule only in the interests of an economic class, and secondly fails adequately to define freedom in his thinking and hence fails to differentiate between economic, political, and social freedom with regard to the existing field structure. Thirdly, he usually fails completely to differentiate between the conditions

which exist under a dictatorship and the avowed *aims* of the various dictators. Fourthly, he does not take the *long view* of considering the possibility of either type of dictatorship's fulfilling its aims. All this means sloppy and emotional thinking with regard to dictatorship. The communist dictatorship is the dictatorship of the proletariat. Its aim is to establish a classless socialist state. The fascist dictatorship is the dictatorship of the bourgeoisie. Its aim is to preserve the *status quo* of a class-divided capitalist state. Since both arise out of the class struggle under liberal democracy, they originally abolish much political, personal-social, and intellectual-action freedom in the interests of the economic freedom of the class which they represent. Hence the surface superficial resemblances of the party, the armed forces, the terror, the lack of political freedom, censorship, etc. Hence also the basic differences in economic freedom for the different classes and the different positions taken with regard to nationalism, racial minorities, education, the arts, the position of women, internationalism, etc. These things will be discussed in greater detail in the latter part of this chapter. Since we have discussed the fascist dictatorship at such length we shall be chiefly concerned with comparing the communist dictatorship with it.

2. Origin of the Communist State

The communist state arises when all the requirements mentioned in the last chapter for fascism have been fulfilled except that a strong workers' party seizes the control of the state instead of allowing the bourgeoisie to freeze its control by setting up a fascist dictatorship. The communist state represents the victory of the proletariat in a revolutionary situation. Let us review very briefly the conditions for the growth of fascism and see how they were fulfilled in Russia at the time of the 1917 revolutions. Then we shall be able to see the differences in the aims of fascist and communist dictatorships.

1.[1] In 1917, although Russia was still largely a backward semi-feudal agrarian country, the cities showed the beginnings of finance-capital industrial production. The class struggle was active and class membership-character had become an important force in determining the social psychology of the whole people. The labor movement was growing in strength and several times in the preceding

[1] *Cf.* the same items in the last chapter on origin of fascist dictatorship.

fifty years revolutionary situations had been approached. In the earlier of these situations the middle class had worked on the side of the proletariat because of the semifeudal character of the whole national field. At the outbreak of the World War the class struggle was particularly intense.[1]

At the end of the period of three years' unsuccessful war the capitalist system in Russia was threatened with collapse. There were inflation, foodstuff shortage, wholesale discontent. It was under these conditions that the Czar was forced to abdicate and the government attempted to introduce liberal democratic reforms. These reforms under Kerensky were unable to restore stability to a capitalist economy. The attempts to continue the war resulted disastrously, inflation increased, and the shortage of foodstuffs became critical. By November, 1917, a second revolutionary situation had developed which was successfully terminated by the Bolshevik party under the leadership of Lenin.

2. The paraphernalia of liberal democracy had been introduced after the February uprising. The monarchy was abolished, and a constituent assembly under the presidency of Kerensky attempted to set up a constitutional liberal democracy. Thus the paraphernalia of liberal democratic state control was established but failed to function. Liberal democracy became more and more unpopular. During the period of reaction (from July to October, 1917) the stage was set for the possibility of either a fascist military dictatorship or a proletarian revolution. That the proletarian revolution resulted is known to all.

3. The petty bourgeois between February and November became gradually expropriated. The petty-bourgeois farmer suffered even sharper setbacks. The Russian agrarian economy depended to a great extent on the labor of the young men at the front. These brought home from the front the seeds of discontent with the war. The succeeding events showed that although the rural petty bourgeois failed to take the direct political line of the Bolshevik party they became ardent sympathizers. *The petty bourgeois although not on the side of the revolution failed to side with the counterrevolution in sufficient numbers to make it successful.*

4. There was also the necessary growth of a communist party. From the time of Lenin's return from his exile in Switzerland in the spring of 1917 until the October revolution the Bolshevik party

[1] *Cf.* Trotsky(336), Vol. I.

grew in numbers and influence. By the time of the October revolution the masses were taking orders from the Executive Committee of the Bolsheviks alone.

5. The attempts at reform government by the provisional regime failed. There was a great deal of talk about dividing the land, terminating the war, setting up the new constitution, but the actual freedoms of social locomotion were continually diminishing. We have referred to this above.

6. There was a growing reaction against the liberal democratic forms of government. The stage was set for a possible fascist government.[1] The forces of fascism or military dictatorship were unable to freeze the power in the hands of the bourgeoisie. Capitalism in Russia was not highly organized enough to continue successfully to support the Kerensky government with the armies of Kornilov.[2] The actual revolutionary situation was successfully resolved by the Bolsheviks.

7. The army plays an active role. In Russia the army failed to support Kornilov. There was great dissatisfaction owing to the unsuccessful war. The army came over to the forces of the revolution.

Thus we see the conditions of a revolutionary situation, the same conditions which gave rise to fascism in Germany. But the result was the victory of the proletariat and the establishment of the first socialist state.

3. Aims of the Communist Dictatorship

The avowed aims of communism are the liquidation of the bourgeoisie-controlled state apparatus, the establishment of a dictatorship to accomplish this and to educate the masses to socialism, and the final abolition of the state control and the creation of a classless society. It is in their aims that fascism and communism are diametrically opposed. The reader will remember that fascism promises to sustain the *status quo* of general property relationships even if to do this it must return to a simpler economic form of control and enforce the existing order for eternity by continuous use of armed force. The fascist state aims at perpetuating capitalist

[1] *Cf.* Trotsky(336), Vol. II.

[2] Kornilov was the first of a whole series of White Russian generals who attempted either to prevent the Bolsheviks from seizing power or to overthrow the Bolshevik regime.

economy and the classes of the capitalist order. The aim of the communist dictatorship is to bring about a classless society based on a socialist economy. Can this be done?

Are the Aims of the Communist State Obtainable?—The success of fascism over a long period of time was shown to be doubtful, firstly, because of the dangers of internal pressure created by capitalist crises, secondly, because of the inability of the leaders to fulfill the promised socialist reforms, *i.e.*, really to break up monopoly, and, thirdly, because of the militarist-nationalistic policy of the government. Only under a great capitalist recovery can the existing freedoms of economic locomotion for the members of the proletariat and petty bourgeoisie be maintained. Failing such a boom further limitations on social freedom of the "lower classes" must be applied. And further limitations lead of necessity to an enhancing of class membership-character within the nation. Only with an extreme modification of national economy could increase in social freedom be possible. The leaders who have attempted actual breakup of monopoly capitalism have been impotent in both Italy and Germany. The reasons for this have been given in the last chapter.

Under socialism however the dictatorship plays quite a different role. Actually the economic freedom for the proletariat has been greatly increased, the promised reforms have been established. While the German foreign policy is militantly aggressive and must be so for reasons given in Chap. XX, that of Russia is, as we shall see, internationalistic and non-militarist. The only great danger to the communist dictatorship is in a war of fascist powers against Russia. Every year which passes without such intervention finds the Russian better able to meet this danger, both through a development of the Red Army and through the industrialization of the country.

But may the aims of a classless society be realized? The theories which claim such a society impossible on the basis of fixed traits of "human nature" are, as the whole argument of this book shows, untenable. And this is the only argument against such a success. Human nature varies with field structure. The classless society cannot be introduced now because of cultural lag and the large numbers of the population whose most potent membership-character is that of the old bourgeoisie. As long as there is the danger of armed intervention the state and the Red Army must be maintained.

But from the standpoint of field dynamics, which allows for the variation in "human nature," and from the standpoint of physical potentiality, a classless society may well be realized. This does not mean the immediate abolition of the state, but the building up of a political apparatus for the general good, for the common weal. The classless society is no Utopian dream which is impossible because of innate "human irrationality," "aggressiveness," or "laziness." It is only made possible, however, through the liquidation of present-day irrationality. But this liquidation is to a large extent possible under a communist dictatorship. Vast strides toward its accomplishment in the Soviet Union have already been taken, as the rest of this chapter will show. It is equally true that the present communist dictatorship is far from this goal.

Thus while the fascist dictatorship aims at its own eternal continuance, the communist dictatorship aims at its own abolition when the objective conditions for the establishment of a classless society have been accomplished. It is, as the journalist Louis Fischer has admirably stated, " . . . a dictatorship which prepares for its own abdication."

We also saw that the fascist dictatorship was based on little or no rational theory. The communist dictatorship is based completely on the economic theories of Marx, Engels, and Lenin. Whether these theories are completely correct is of course a matter yet to be decided. But it must be stressed that these theories, applied in the Soviet Union, have created an almost unbelievable industrial expansion and with it an increase in social freedom for the proletariat at a time when the capitalist civilizations are retrogressing or even on the brink of chaos. The final aims of the communist dictatorships have been very eloquently stated by the communist dictator himself.

Stalin(314) writes:

> The general characteristics of Communist society are given in the works of Marx, Engels, and Lenin. Briefly, the anatomy of Communist society may be described as follows: It is a society in which (*a*) there will be no private ownership of the means of production, but social, collective ownership; (*b*) there will be no classes or State, but workers in industry and agriculture managing their economic affairs as a free association of toilers; (*c*) national economy, organized according to plan, will be based on the highest technique in both industry and agriculture; (*d*) there will be no antithesis between town and country, between industry

and agriculture; (*e*) the products will be distributed according to the principle of the old French Communists: "from each according to his abilities, to each according to his needs"; (*f*) science and art will enjoy conditions conducive to their highest development; (*g*) the individual, freed from bread-and-butter cares, and of necessity of cringing to the "powerful of the earth," will become really free, etc., etc. Clearly, we are still remote from such a society. [From J. Stalin, *Leninism*, International Publishers Company, Inc., New York, 1933, pp. 70–71.]

4. Degree of Freedom of Social Locomotions under Communism

The communist state is the dictatorship of the proletariat, *i.e.*, the establishment of rule by force in the interests of the proletariat. Field-dynamically, the degrees of freedom of social locomotion previously held by the bourgeoisie, particularly with respect to economic locomotions, are forcibly diminished. And at the same time the degrees of freedom of social locomotion for the proletariat are increased as rapidly as possible under the existing economic production system. This does not mean that the proletariat is immediately given complete freedom in the sense that the total national income is equitably distributed. In a backward country like Russia much of the national income had to be spent for education and industrialization. Furthermore a large part (almost one-fifth) of the national income is devoted to the support of the Red Army. But the labor, which in the Marxian sense is immediately unpaid, goes not to private profits but to the state. Thus the five-year plans may be looked on as great national savings policies, the interests on which will be returned to the workers and their offspring when time warrants. The aim of the communist dictatorship is eventually to create, as we have seen, a classless, stateless, society. But at first the existing production units must be maintained and further ones built up. Consequently since economic freedom depends on production factors an economy of state-controlled socialism must precede the communist state. The first step after the political revolution is the establishment of a technological revolution in the interests of the proletariat. Consequently economic freedom is withdrawn from the bourgeoisie and the state functions to increase the economic freedom of the proletariat. State control is established as under fascism by armed forces.[1] The attempt is made through

[1] In Russia the O.G.P.U. and the Red Army are under the immediate control of the Communist Party.

this forced control to eradicate class membership-character. Those bourgeois who actually take a reactionary position may be terrorized and undoubtedly, as individuals, suffer considerably. The petty bourgeois who have not become actually proletarianized receive the same treatment. All the organs of propaganda become immediately forced into the service of the state.

Although classes are subjected to forceful dissolution, under the dictatorship a certain caste system must of necessity be maintained. These castes range from political executives, through technicians and professional men, down to workers and farmers. But the varying degrees of freedom of social locomotion which exist within these castes are an arbitrary condition subject to planning and are never as great as under a fascist dictatorship or under capitalism.

The state in the name of the proletariat takes over the apparatus of production. And in so doing it sets up a completely new form of government agency, the soviet. The soviet is the council of workers and farmers and is built up on a pyramidal system.[1] With the establishment of the dictatorship of the proletariat, the social field becomes radically restructured. The Communist Party controls the whole social field in the interests of the proletariat. This restructurization with regard to political, intellectual-action, personal-social, and economic locomotions will be handled in the next paragraphs.

Political Freedom.—Political freedom is at first completely abolished under the communist dictatorship.[2] The proletarian loses his "right" to vote except for local representatives. He is free to assemble only in the interests of the Communist Party. His freedom of speech is limited to non-political matters. He is met everywhere by the slogans of the Communist Party and may not set up others against these. However, his legal status becomes in the hands of the people's courts better than it had ever been under liberal democracy. His voice in local matters, like control in his factory or on his collective farm, is attended to. The political power of the bourgeoisie is completely destroyed. Parliamentary government, as under fascism, is abandoned by decree, and in its

[1] *Cf.* the definition on p. 409.

[2] Political freedom with regard to local government (within the shop, factory, on the farm) existed from the earliest days of the communist regime. Under the fascist dictatorship even such local government falls under the "leadership principle."

place the Executive Committee of the Communist Party becomes the chief controlling political agency. The political control of radio, press, stage, screen, and academic freedom is complete. *But the tenure of such control is limited by plan and as soon as more freedom is considered safe it is granted.* Thus it is very difficult to know exactly what political or other social freedoms are existent at any time in the Soviet Union. It would also be meaningless to attempt an exact list of such freedoms. While this book was being written, the secret ballot has been established in Russia, bread ration cards abolished, light opera returned to the stage, and night clubs and cabarets established. Consequently we may say that while political freedom has been seriously curtailed from the standpoint of liberal democracy this curtailment is temporary. The avowed aim of communism is to create a higher degree of political freedom than has ever existed under liberal democracy and the communist dictatorship is definitely moving toward this end.[1]

Intellectual-action Freedom.—Intellectual-action freedom is likewise diminished and changed in its degree in the various social regions. These changes may be said to be inversely correlated with those in Germany. The barriers imposed cover almost diametrically opposite social regions. In our discussion of political freedom we have already spoken of some of the limitations on intellectual-action freedom under communism. The press, stage, and radio are under strict governmental control. But even this control must be differentiated from that under fascism. The Russian press actively propagandizes for socialism, internationalism, and the classless society. As under fascism, in the universities the biological and social sciences are controlled but here again the control is in quite different interests. I think it may be safely said that the Russian biological and social science is today second to none, despite the dictatorial censorship.

We must deal separately with the problem of religious freedom under the communist dictatorship. This is a topic which has been

[1] While this book was in press the important work of B. and S. Webb (*Soviet Communism: A New Civilization?*, Charles Scribner's Sons, New York, 1936) appeared. From this work it is evident that we have underestimated the degree of freedom of political locomotion in the Soviet Union. At the present time a new constitution is being drawn, which will, it is claimed, make the Soviet Union the most democratic state in the modern world. Our analysis consequently is already somewhat obsolete. However, at the time of the third impression (Spring 1939) there has been a reversal of the tendency to greater political freedom because of the threat of fascist attack.

as widely discussed as the treatment of the Jews under fascism. The power of the church in Russia was destroyed in so far as the church was an appendage of the bourgeois state. Of this there can be no doubt. Furthermore, the political philosophy of communism with regard to religion is that of atheism. The larger churches have been turned into museums (often antireligious museums) and workers' clubs because in modern Russia, owing perhaps to the atheist propaganda, these are no longer in demand as places of worship. In so far as religious observance does not interfere with the creation of the new economic forms, however, the *individual has religious freedom.* It is a remarkable confirmation of the field theory (Chap. VIII) that as scientific education increases and the church is removed as a social force, the deep religiosity belonging supposedly to the "Russian nature" is no longer in evidence. Whether or not this is a good or desirable factor it is not necessary to state here. The proletariat with few exceptions have become atheists under the communist dictatorship. Nor have their manners and morals become in any way decadent from this transformation. It is becoming increasingly evident that the member of the "classless" society will be an atheist so far as holding belief in a supernatural personal God is concerned. It is frequently stated that communism itself has become the religion of the Russian people. If by religion is meant belief in supernaturalism this is the purest nonsense. On the other hand, if by religion one means behavior which attempts to create social equality, brotherhood, and well-being, communism may be looked on as religion. But it is a religion based on scientific discovery and experiment, not on mysticism, revelation, and pronunciamentos of a clergy.

Personal-social Freedom.—Personal-social freedom for the bourgeois is again decidedly limited under communism. He is no longer able to indulge in "conspicuous consumption," he is no longer able to have special rights with regard to his familial and marital relationships. On the other hand, the social life of the proletarian is much enriched. Cultural activities and education are stressed by the government in his interests. The family economy is collectivized as rapidly as the "cultural lag" will permit. The laws regarding marriage, divorce, and birth control have been liberalized in keeping with the best scientific beliefs of the medical and psychological professions. So far as is possible under the economic planning system, personal-social freedom is being increased for the proletariat.

Economic Freedom.—It is in the sphere of economic freedom, however, that the greatest change has occurred. Capitalist economy has been replaced by state socialism. This means that the forces of production have been taken over by the state, that with few exceptions the individuals are in the employ of the state, and that production is for consumption on the basis of the planned economy. This economy furthermore is planned over a long-time range on the basis of the Marxian theories of economics. Only when these factors are considered can one understand the problem of freedom of economic locomotion under the communist dictatorship. At the time of the successful proletarian revolution in 1917, Russia was a backward semifeudal agrarian nation, torn with years of war, and soon to be surrounded by enemies. It was necessary to industrialize Russia, to recreate the losses of the war, and to build up a strong army against the aggression of capitalist powers. Today all this has been done and Russia, as most competent observers agree, has the most stable government in the world, a rapidly rising standard of living under an almost self-sufficient domestic economy and with a very efficient modern army. On the other hand, a fact which must not be overlooked is that this situation has been created by nearly twenty years of the greatest suffering and sacrifice.

The greatest reorganization has occurred in the previous bourgeois groups. They have been expropriated, mostly without recompense. That great individual suffering and hardship has been inflicted on them goes without saying. Furthermore the large landowning farmer class (the kulaks) have been actually starved off their land if they failed to come over to the new order. This policy has led to great individual hardship and is certainly responsible for no small number of deaths. This policy, however, was inaugurated in order that the danger of famine, previously an ever present threat to the Russian people, might be removed as rapidly as possible. At present it may be said to be non-existent. Again we must stress that the economic freedom which the bourgeois enjoys under capitalism is destroyed under socialism.

On the other hand, despite many minor setbacks, despite the dangers of bureaucracy, despite much inefficiency, the socialist system is rapidly creating a *permanent degree of freedom of economic locomotion for the proletariat only equaled under capitalism at times of its maximal efficiency*. Furthermore there is every reason to believe that this increase may continue indefinitely. The Russian

who "by nature" was considered unable to adjust to a machine economy has turned into a technician. Russia today is the first industrial nation of Europe. Wages have risen and prices fallen continuously and drastically under the communist dictatorship. It is quite possible, indeed many observers think it highly probable that there will be more economic freedom for the proletariat under communism within the next twenty years than has ever existed under capitalism even in economic good times in the United States. Furthermore, unless this advance is halted by war the progress may be made continual. The trend toward increased economic freedom for the proletariat may well be seen in the following statistical figures:

1. Unemployment was entirely abolished and insecurity of the workers ended. "The threat of unemployment, poverty and starvation has vanished for the toiler in the U.S.S.R." (Molotov).

2. A 100 per cent increase in the number of workers employed in large-scale industry compared with 1928—an increase of 57 per cent in excess of the figures originally set for the full five years.

3. Adoption of the seven-hour day in industry (six hours in hazardous trades) affecting the overwhelming majority of the working class.

4. An 85 per cent increase in the national income compared with 1928.

5. An increase of 67 per cent, as compared with 1928, in the average annual wages of workers employed in large-scale industry.

6. An increase in the social insurance fund of 292 per cent above 1928 which meant that the Five-year Plan estimates had been exceeded by 111 per cent.

7. In the educational field affecting workers, peasants and their families, the gains were equally significant, for example: Number of pupils in elementary schools increased from 10 million to 19 million between 1928 and 1932. Literacy among the population rose from 67 per cent in 1930 to 90 per cent in 1932. Number of pupils in intermediate schools rose from 1,600,000 in 1928 to 4,350,000 in 1932. Number of students in factory technical schools ("technicums") and "workers' faculties" increased from 264,000 in 1928 to 1,437,000 in 1932. Number of students in universities grew from 166,000 in 1928 to 500,000 in 1932. Number of scientific research institutes increased from 224 in 1929 to 770 in 1932, while the number of scientific workers was doubled. [From *Labor Fact Book II*, International Publishers Company, Inc., New York, 1934, pp. 199–200.][1]

[1] Today even these figures are being surpassed along every line.

In Table 8, we repeat some of the material from the last chapter, with additional material on Czarist Russia. Through study of this table, the reader should be able to review easily the differences and comparisons of the fascist and communist dictatorships.[1]

TABLE 8.—EXISTING AND PURPOSED FUTURE DEGREES OF FREEDOM FOR THE VARIOUS ECONOMIC CLASSES

	Under Czarist Russia			Under Communist dictatorship				Under Fascist dictatorship[1]					
	Previously existent			Existent[2]			Aimed no classes	Existent			Aimed		
	B	PB	P	B	PB	P		B	PB	P	B	PB	P
Economic	6	3	1	1	2	3	>>	4	2	1	c or >	c or >	c or >
Personal-social	6	3	1	1	2	3	>	3	2	1	c or <	c or <	c or <
Intellectual-action	6	3	1	1	2	3	>	3	2	1	c or <	c or <	c or <
Political	6	3	1	1	2	3	>	3	2	1	c or <	c or <	c or <

Cf. Table 7 for meaning of symbols.

[1] In this chart as in Table 7 the comparison of index figures is limited to pre- and post-revolutionary Russia. The fascist data are repeated simply for a comparison of aims. It is almost impossible to get comparable indices for both Germany and Russia because Germany has been an advanced industrialized nation for 60 years, while Russia until 1917 was a backward semifeudal agrarian nation.

[2] The existing freedoms for the petty bourgeois and bourgeois under communism refer to locomotions with regard to goals previously sought by the bourgeois. Those bourgeois who have accepted communism have the same freedoms as proletarians.

5. "FORWARD" TRENDS UNDER COMMUNISM[2]

The differences between the fascist and communist dictatorships are perhaps nowhere so clearly evident as in a comparison between the reactions of both state forms toward the trends listed in the last chapter. There we saw that from the standpoint of the avowed ideals of liberal democracy certain fascist attitudes could only

[1] *Cf.* the limitations discussed in connection with Table 7.

[2] *Cf.* the limitations discussed in connection with the topic in Chap. XX.

be classified as "backward." All these corresponding reaction tendencies under the communist dictatorship must be classified as "forward." Again we use the designation "forward" in quotes, indicating that it is an evaluative concept. However it should be quite obvious that on the whole those tendencies in society which were looked on as progressive in the most typical era of liberal democracy are also looked on as progressive under the communist dictatorship. We shall discuss them in the same order, referring only to Russia. For comparison purposes the reader must look back to Chap. XX, Sec. 5.

The Fine Arts.—Nearly every observer agrees that the fine arts are being cultivated in Russia today as seldom in the history of any country. The center for modern architecture has moved from Berlin to Moscow. New buildings of a functional nature are being constructed all over the U.S.S.R. The plastic arts likewise are being encouraged. More individuals are concerned with painting and sculpturing than ever before in Russia's history. Vast music festivals are held. The Moscow Theater has become the first experimental theater of the world. The Russian cinema has produced much more than its share of recent pictures of real artistic merit.

The most surprising progress, however, has been in the field of published literature. The Russian writer has a larger potential market than a writer in any capitalist country. The type of novel which is printed in a first edition of 5,000 here, is printed in the U.S.S.R. in a first edition of 50,000, even up to 250,000 copies. This increase in the market for literature is furthermore not limited to "propaganda" literature but also has occurred in the market for Russian and translated classics. The book-publishing business has made even greater comparative gains than Russian heavy industry.

Education and the Sciences.—At the time of the Czar only some 35 per cent of the Russians were literate. At the present time illiteracy is practically abolished.[1] The vast majority of Russian citizens spend some of their time in study. Trade schools, factory schools, special study groups have sprung up in a mushroom growth. At the end of the second Five-year Plan in 1937, over one quarter of the population will go to institutions of higher learning (normal

[1] The only illiterates are the few congenitally stupid, or the very set old people who refuse to learn.

schools, technical schools, universities). Even at the present time a greater proportion of the Russian than of the American populace attends universities. This is particularly striking because the American university enrollment has been proportionately many times that of the western European capitalist countries. It would be misleading to state that the quality of the educational process is as high in Russia as in the United States. However, as the quantity has increased, the quality will undoubtedly do likewise.

Before the revolution Russian science was largely the contribution of a few very distinguished bourgeois university professors. At the present time there are not only many times the number of trained scientists in Russia as previously, but the number of research institutes has increased many times. The Russians today are making distinguished contributions in the physical, biological, and social sciences. That the lack of completely free enquiry may hamper certain lines of scientific endeavor is to be freely granted. But it is entirely possible even today that the science capital of Europe is in Russia rather than in Germany.

The Position of National Minorities.—Nowhere is the difference between the fascist and the communist dictatorships more clearly to be seen than in the problem of the rights of national minorities. In Russia anti-Semitism is punished as drastically as possible. In fact all races are assured of complete social, political, economic, and intellectual-action equality. In the Soviet Union members of racial minorities live on a completely equal footing. There is, however, no attempt made to uproot national and linguistic traditions which any of the racial minority groups wish to maintain.

The Position of the Rural Family.—The rural family is being urbanized as rapidly as possible. The land has been collectivized and on the great collective farms completely modern conditions of life have been established. There are modern libraries, schools, gymnasia, theaters and workers' clubs in communities which fifteen years ago could only be described as primitive rural communities.

The Position of the City Family.—The potency of familial membership-character in the city family has been decidedly diminished since the revolution. Marriage and divorce laws have been extremely liberalized, day nurseries established for working mothers, cooperative boarding enterprises established. In the field of familial relationship there exists undoubtedly a higher degree of freedom in Russia than in any other civilized state.

The Position of Women.—For the first time in the history of any country the Russian woman enjoys complete social, political, and economic freedom. All schools are open to women students. All professions and walks of life have many women representatives. The woman in Russia can go just as far as her abilities will take her.

Sexual Hygiene.—In the field of sexual hygiene Russia undoubtedly enjoys first place of all the nations of the world. It is well known that birth-control knowledge is spread by state-established clinics in Russia. Furthermore, when cause can be shown why the child should not be born, there are free clinics in which abortion is performed. Despite alarmists, who predicted that such information and practice would cut the birth rate, actually the birth rate has increased rapidly in the last few years. It is well known to abnormal psychologists and psychiatrists that neurosis is largely caused by sexual maladjustment (Chap. XVI). The newer freedom in Russia concerning sexual affairs and the spread of sexological knowledge together with the new economic security have practically removed neurosis from Russia.[1]

Social Insurance.—Russia today enjoys the most complete system of social insurance ever adopted. There is complete unemployment, sickness, old age, and accident insurance for all workers. Every worker in Russia is guaranteed at least a two weeks' holiday with full wages and his travel expenses paid to some resort. Many classes of workers receive even as much as two months.

Attitude toward War and Internationalism.—Russia may be said to be the most pacifistic and internationalistic nation in the world today. Ever since her entrance into the League, Russia has stood for complete and immediate disarmament. In the Italo-Ethiopian struggle Russia has demanded most emphatically of all the nations the application of sanctions. The propaganda in the Red Army even is for peace. This is not surprising to individuals who realize that owing to the Russian economic system there can never be surpluses which must be sold abroad at some profit in order to prevent capitalist crises at home.

We see then that, in accordance with the avowed ideals of liberal democracy, the *trend* in Russia is "progressive" and "forward" while Germany is definitely retrogressing.[2]

[1] *Cf.* Dr. Frankwood Williams(361).

[2] The reader is again asked to observe the emphasis on *trend* and the meaning of "forward."

6. Summary

In this chapter we have seen:

1. The communist and fascist dictatorships are similar in that they both represent rule by force in the economic interests of a certain class. They are different in that the fascist dictatorship is the dictatorship of the bourgeoisie, while the communist is that of the proletariat.

2. The characteristics of the field structure necessary for the rise of communism were given. These are the same as those giving rise to fascism *except that the communist rather than the fascist party is successful in the revolutionary situation.*

3. The aims of the communist state are to create a classless stateless society by creating the material basis for this society through a socialist economy.

4. The degrees of freedom of social locomotion under communism vary for the class regions. Communism represents the temporary curtailment of the various freedoms for all the classes in the interest of the economic freedom of the proletariat.

5. The "forward trends" under communism are outlined and their necessity explained.

Bibliographical Note

The best discussions of events leading up to the Russian Revolution are those of Trotsky(336), Lenin(189, 191, 188), and Stalin(314). Also good is Rosenberg's *History of Bolshevism*(289).

For the growth and changes of Russian internal organization since the revolution Stalin's(314, 315) reports to the Communist Party of Russia are indispensable. Also important are the various publications like *Voks* and *Soviet Russia Today*. General works by outsiders which are good are those of Hindus(145, 146, 147), Strong(322), Winter(363), and Duranty(88). For a brief account of the significant features of Russian national economy see *Handbook of the Soviet Union*(11).

CHAPTER XXII

THEORIES CONCERNING THE OUTCOME OF THE PRESENT WORLD CRISIS

1. The Increasing Need for a Social Psychology

We have completed our presentation of a field-theoretical account of social psychology. In this chapter we shall see what there is to be said for the many theories which deal with the present world cultural and economic crisis. That such a crisis exists now seems to be admitted by most competent observers. This work started by pointing out the crisis in modern society and showing the very real need for a better understanding of social psychology than we now possess. The first chapter was written nearly five years ago.[1] Has the crisis passed in the meantime so that we can say the need of a social psychology is any less?

Increased Danger of War.—Decidedly, *no*. In the first chapter we pointed out that war constituted an imminent danger. At the time of writing war has actually broken out between Italy and Ethiopia. It may well be that the war will be terminated before this book has been published. But it is impossible to foresee any termination which will in any way permanently decrease the danger of future wars. If the League of Nations should be successful in fully preserving Ethiopian independence, which to all sane observers seems impossible, Italy will be in danger of internal revolution. And if the League fails and Ethiopia is partitioned by the Great Powers, it means the end of the effectiveness of the League of Nations, the end of even the semblance of international cooperation in the interests of peace.[2] While Europe is completely engaged with the Italo-Ethiopian struggle, Japan has furthered her subjugation of China. Germany, which began wholesale rearmament in 1933, is becoming actually an armed camp. In Chap. XX we saw that

[1] June, 1934.

[2] While this book was in press, the Italians have conquered and annexed Ethiopia, thus creating an even more dangerous international situation. At the time of the third impression of this book (Spring 1939) world events are happening so rapidly that the examples chosen to indicate the war danger seem weak indeed. The general predictions of this chapter have been well verified however.

fascism must lead to war. The deadlock in which the World Disarmament Conference found itself in 1933, which led to a complete cessation of disarmament, not only continues, but in actual practice rearmament is occurring on a scale never before known in history. The budgets of all civilized countries for "defense" are considerably larger than they were at any time before the World War.

Economic Recovery?—One hears a great deal about domestic economic recovery in the great capitalist countries. In fact many public men are beginning to speak of the "late depression." It is not to be denied that the total industrial production of the capitalist countries has regained about one-half the loss suffered between 1929 and 1932. It is quite likely that further gains will be made in the index figures indicative of industrial production. But these gains have been in America much greater than either the gain in employment or the gain in pay rolls. Actually *real wages* have *not* increased at all and some statisticians even consider that they have decreased. Furthermore even the most optimistic estimates suppose that "technological" unemployment on a large scale is here to stay. The gains in America have also been conditioned by price inflation and to a certain extent by money inflation. From the standpoint of any orthodox economics the outcome of this situation must be a gradual recreation of a domestically unconsumable surplus, which, failing foreign markets, must end in another crisis. Whatever "recovery" has occurred elsewhere is also on the basis of inflation or the increase in the war industries. We must conclude that the general surface appearance of recovery and the unquestionably greater confidence of businessmen is on no sound economic basis. It must eventually lead either to imperialist war or to another world financial crisis.

Everywhere there continue signs of unrest. In fascist countries the conditions are particularly critical, as is evidenced in both Italy and Germany. Rioting has occurred in both countries in the past two years. In France, long the stronghold of republican democracy, events which are more than strongly reminiscent of the changes immediately preceding Hitlerism in Germany have occurred at the time of writing[1], and finally, at home there have been numerous industrial struggles including two general strikes since this

[1] October, 1935. Since then in the spring elections the fascists have suffered a severe setback. Added note, Spring 1939. The original setback to fascism in France was followed by the Popular front, its collapse, and the present appeasement policy which make fascism again a danger to France.

book was started. Actually, then, the crisis continues and the need of a social psychology is perhaps greater than ever.

2. Types of Social Theory

The literature, good, bad, and indifferent in style and method, optimistic and pessimistic in outlook, concerning the present economic and cultural crisis is tremendous, and the list grows daily. The conservatives, the liberals, the socialists, the fascists, the communists, the technocrats, the conservative economists, the Social Creditites, the Townsendites, even the Prohibitionists have found spokesmen. All the political parties publish official pronouncements regarding the course of the crisis. There has been a tremendous growth in America of daily, weekly, and monthly publications dealing with sociological, political, and economic problems. There has been an even greater increase in popular works on social philosophy, economics, and history by philosophers, economists, historians, and others. The opinions expressed in these works range from the actual denial of the crisis of the ultra-conservative thinkers to the predictions of complete decline of our immediate culture by men like O. Spengler. There is every shade of opinion between these two extreme viewpoints. From all this welter one can gain no sure conclusions until the basic positions of the various writers have been analyzed. Upon such analysis, however, certain types of theory may be isolated and certain at least of these types of theory may be seen to be erroneous. By type of theory we mean the pattern of underlying basic postulates on which details of the theory are based. We shall see that, as all modern biological theories can be reduced to variations of vitalism, atomistic-mechanism, and the organismic viewpoint (Chap. II) so may all the variant social philosophies be reduced to certain genotypes. Whether these genotypes are based on vitalistic, atomistic-mechanistic, or organismic philosophies of biology, and how well they may be integrated with the modern social psychology, will be of course considerations of the greatest importance, because a social philosophy based on a faulty philosophy of biology or on inaccurate social-psychological postulates cannot itself be sound. In our opening chapter we saw that it was highly unlikely that society could remain permanently constituted just as it is at present. A good starting point for our discussion of social theory may be made with the question of social change.

Of each of the theories to be discussed we may ask the following questions concerning the existence of change: Is there social change? Does change mean progress? Is change gradual or mutatory? We may well ask also: What creates change? Is it ideas? Is it matter? Or is it both combined? In the third place, we should know of each theory what it says concerning man's ability to *create change.* May he rationally create change? Is he powerless against change? May he do something about change? After examining various theories of social psychology, we shall finally reexamine some of the chief postulates of our field-theoretical social psychology in order to see what light the findings of the book throw on these very important questions regarding social change.

It would be as presumptuous as it would be confusing to attempt an examination of *all* the various social philosophies which have some adherents today. As it is, we can scarcely hope that the reader who is completely ignorant of the theories which we do discuss will gain more than a very superficial insight into them. But we hope to point out the methodological bases for certain very important theories, their consequent predictions concerning social change, and finally the probability of these predictions being fulfilled from the standpoint of the methodological principles developed in this book. Representative of theories denying change we shall consider political conservatism and Pareto's theory of society as an equilibrated dynamic system. For theories which affirm change as gradual we shall discuss the theory of social evolution of H. Spencer, W. G. Sumner, and A. G. Keller and the political sociological theories of the social democrats. For theories which affirm change as mutatory we shall discuss Spengler's theory of cultural cycles and Marx's theory of revolutionary social progressivism. Most remaining modern theories are refinements in one form or another of these above. When a theory is primarily connected with the name of a single man we shall use his name to designate it. However, particularly in the modern world, no theory is the exclusive contribution of a single individual and all the theories which we shall discuss are representative of important modes of thinking about certain practical social problems. In each case lack of space prevents any development of the detail of the theory. We believe, however, in the following paragraphs we have adequately characterized the basic postulates of each theory and have accurately presented the predictions of its chief adherents.

3. Theories Which Deny Change

A. Complete Conservatism.—The belief that nature including society is stable and that there is no change in its basic structure is seldom seriously held today. Discoveries, some of which we have discussed, in the fields of general biology, social anthropology, law, political science, and economics have embarrassed the view that nature, including society, is stable. Rather society as a particular manifestation of nature has been seen to be in a continual state of flux. The last important philosopher to hold even a modified view of societal constancy was the great German, Kant. And Kant himself as is well known invented an important theory of cosmic evolution,[1] which was the first of a long line of evolutionary theories.

The discoveries of change in every field throughout the nineteenth century discredited the belief in the complete stability of human society. Consequently conservatism in political and social philosophy today, rather than attempting to deny change, attempts to regulate it and hold it back. With the exception of certain completely ignorant and rather stupid individuals on the one hand and certain self-interested and deceitful ones on the other, no one holds that change is completely undesirable. And even these individuals must realize that, desirable or not, change is occurring. Our question, then, "Does change occur?" must be answered in the affirmative. The social structure, the political system, the economic system, fashion, laws, morals, all depend on the structure of the social field and this structure is in a continual flux. The theory nearest to complete conservatism which is worthy of *scientific* consideration is Pareto's theory that change is illusory.

B. Change Is Illusory (Pareto).—The only modern representative of conservative thinking in social philosophy worthy of being taken seriously is the Italian economist and sociologist, Pareto. In his monumental *Trattato*(263), Pareto has presented a systematized sociological theory with definite implications for the future of society and definite predictions on the outcome of the present crisis. Pareto's basic theme is that *change is illusory.* Despite the change in our forms of government and economic organization, despite the fact that the rulers come from different strata of society and that existing aristocracies decay, there remain for Pareto a basic

[1] The Kant-Laplace nebular hypothesis of the origin of the solar system.

form of society and basic drives of "human nature." Society represents a dynamic system wherein forces tending to destroy equilibrium are balanced by forces which recreate it, so that the process of historical sociology is a series of cyclical returns to equilibrium without any real progress. Man, belonging as he does to the species *Homo sapiens*, has certain natural reaction tendencies; a society built up from such individuals, who are its molecules, must have a basic form. There is always a ruling class, which rules in its own interests, exploits for its own leisure. There is always the ruled mass, which is exploited by the rulers. Consequently throughout history all that has changed has been the appearance of society. Its basic form has remained the same. Change and progress are illusory.

The above lines indicate in the briefest outline form Pareto's social philosophy. Let us now see on what methodological basis his theory rests. Pareto considered society to be a dynamic system which in order to exist must be in a state of equilibrium and in which the forces which tend to disrupt it are counterbalanced by forces which integrate it. Pareto had studied engineering and physics thoroughly before coming to sociology and hence starts his work by asking what in these sciences gives them their methodological excellence. He then attempts to use the method of physics, the so-called logico-experimental method, in sociology. Much if not most of what Pareto has to say about scientific methodology is very sound and his trenchant criticism of his sociological predecessors sets a high standard for sociological writing. In our own methodological section we owe much to this part of Pareto's work. Certainly the attempt at a sociology based on the logico-experimental method, without evaluation, without moralization, and supposedly not in the interests of any social group or class, is highly to be praised. The positive critical and methodological contributions of Pareto, have, we believe, been assimilated in all sound scientific sociology today. Pareto, however, is to be criticized very seriously when he attempts to define the functional variables operative in society as a system.

These variables include, first, the physical environment including soil, climate, flora, and fauna, secondly, other groups or societies and, thirdly, the inner elements of the society. It is chiefly with these inner elements that Pareto's book is actually concerned. It is here that Pareto brings in his very inadequate social-psychological

theory, makes it basic to his sociological theory, and completely invalidates his whole argument. The inner elements of the society include men and their reaction tendencies. In fact Pareto's whole work is chiefly concerned with a theory as to the "nature of man" and one which like all "human nature" theories is very limited in its applicability. Let us turn to it.

The Basic Reaction Forms.—Pareto posits as the basic social-psychological reaction forms, sentiments, residues, and derivations. In no place does he clearly define and delimit these categories.[1] However from the whole work one gains a fairly good idea of what he understands by them. The sentiments are the chief springs of human motivation. They are at least quasi-instinctual in nature and from them spring the residues and derivations. No definite list of sentiments is given so we shall concern our critique chiefly with the residues.

Pareto believes underlying all social behavior are six basic classes of residues which are the innate reaction tendencies of human beings. By residue Pareto means a relatively constant reaction tendency of some modificability which is common to men at all times. They are not to be looked on as invariable reaction tendencies, and some individuals are more guided by some sets of residues than they are by others. However the residues represent the irreducible minimum of human reaction tendencies. Sorokin(308) has summarized Pareto's classification of residues very neatly and we give his summary:

> There are six principal classes of residues, each of which is divided into a series of subclasses. The classes are as follows: (1) *Residues of Combinations:* These are the drives to make physical and mental combinations of various things generally, of opposite things, of like with like, of rare things with exceptional events, and so on: (2) *Residues of the Persistence of Aggregates:* The drives to keep the persistence of man's relations to other men and to places; of the living to the dead; and the persistence of abstractions, of symbols, of personified concepts, and so on; (3) *Residues (or Needs) of the Manifestation of Sentiments through Exterior Acts:* Religious exaltation, political agitation, and so on; (4) *Residues in Regard to Sociability:* Drives which compose particular societies and factions; imposing a uniformity on the members of an aggregate, such as neophobia, pity, cruelty, asceticism, drive for popularity, inferiority and superiority complexes, and so on; (5) *Residues of the Integrity of Per-*

[1] *Cf.* the brilliant critique of McDougall(221).

sonality: Drives which preserve one's personality against alteration, the drive for equality, and so on. (6) *Sexual Residues.* [From P. Sorokin, *Contemporary Sociological Theories,* Harper & Brothers, New York, 1928, p. 49.]

These residues determine human behavior and the nature of society. They are the sources of the basic behaviors on which sociological rationalizations are based. In this point Pareto, although he never mentions Freud, comes close to a theory for sociology which is similar to the Freudian theory of individual rationalization. The residues are the "genotypes" of behavior, actually governing behavior, on which the derivations or sociological "phenotypes" are based. Derivations are the consciously and openly assigned motives for social behavior. The masses, for reasons not clearly stated by Pareto, are on the whole incognizant of the residues, while the élite or rulers are cognizant of them to a large extent and use them to dupe the masses with appropriate derivations from them. In this respect it is quite obvious that Pareto begins his analyses with a definite picture of traits of human nature. Our criticism of such procedures in Chap. XIV renders any further criticism of this aspect of Pareto's theory unnecessary. And this aspect of Pareto's theory is basic to the rest of it.

Circulation of the Élite.—Despite the fact that these drives are basic to human nature, they occur in different amounts in various individuals. The relative preponderance of residues of combinations in a certain type of individual called by Pareto the *entrepreneurs* leads them into conflict with the individuals who are predominantly governed by the residues of persistence of aggregates, the *rentiers.* In so far as there is a class struggle it is based on this conflict. The entrepreneurs, because of the strong residues of combination which govern their activities, are speculators, reformers, reconstructors, tending to increase economic expansion and democracy. The rentiers are the predominantly conservative who attempt to maintain and preserve the existing structure of society. History is a process of a quasi-dialectical nature between the leaders of these two groups. But out of their struggles comes no synthesis on a higher level. The vast majority of individuals are heterogeneously unequal and destined to become stratified into castes and classes. They are on the whole led alternately by the self-interests of the entrepreneurs and the rentiers. Thus in the period before the World War, society was governed primarily by the entrepreneurs.

This accounted for the increase in speculation, spread of democracy, and reformism which ended in the war. The reaction to the excesses of the entrepreneurs, whose activity causes societal disequilibration, by the more conservative rentiers, is made the basis for the growth of dictatorship and fascism in contemporary Europe. Pareto is to be credited as being one of the few social scientists who predicted a collapse of liberal democracy at a time when most of his profession were predicting its continued expansion. Thus throughout history recurrent equilibrium occurs first under the entrepreneurs and then under the rentiers, but society remains basically the same, a class society governed by the élite in its own interests. Change is only illusory. Politicians must be self-seeking, because men are self-seeking on the basis of residues. It must be admitted that Pareto's theory of social change and political action is solid stuff compared with that of most of his contemporaries.

Critique of Pareto.—Pareto is a social philosopher to be taken seriously and his analysis of political change under the field structure of capitalism is a sound piece of work. But as a social prophet, Pareto himself becomes a fine example of how attitudes are determined by field structure. Being a rather wealthy upper-class bourgeois he could not see beyond the limits of the capitalist culture.[1] He was able to predict Mussolini and Hitler and the collapse of liberal democracy, but the phenomenon of the Stalin dictatorship is completely incomprehensible from his analysis. Since under capitalism politicians, to gain freedom of social locomotion, are corrupt he makes the class-theoretical generalization that they are by nature so. Since there occurs under capitalism a fluctuation in government without any real advance in the condition of the masses, he makes the mistake of believing that the normal probability curve *mean* is determined by "nature."[2] Pareto is a curious mixture of field theorist and class theorist. His conception of society as an energy system is field-theoretical, but he fails to see the supersummative nature of energy systems in general. His mode of attack is hypothetico-deductive, but he fails properly to avail himself of adequate constructs in the modern scientific sense. He was the first sociologist to insist on nonvaluative constructs

[1] Pareto was also an important economist but his economic theories were likewise conditioned by his membership-character in the bourgeois social region. *Cf* Florance's(106) critique of his law of income distribution.

[2] *Cf.* Chapter XIII.

in the modern scientific sense. Of all his contemporary bourgeois sociologists he was the only one who made predictions that were even partially realized by the actual course of events. But despite his sound methodological premises, despite his tough-mindedness, despite his insistence that only nonvaluative concepts be used, his own thinking was definitely limited by his time and his class, as well as by his inadequate social-psychological premises.

We find Pareto's theory that change is illusory and his prediction that society has a constant basic structure unsound. Actual social-psychological changes do occur when fields are radically restructured. Pareto's theory insists on the constancy of human nature. And after he has posited these constancies, it is easy for him to find support for them in his study of historical literature. Actually as we have seen even human reasoning has changed in its form during recorded history. Human nature does not exist independently of the structure of the social field. Basic to Pareto's theory is the doctrine of residues, which is a class-theoretical abstraction. Even if there were various basic drives (*i.e.*, traits of human nature) which it was possible to isolate, the goals to which they react would be found to change with field structure. Technological advancement has furthermore definitely changed the nature and abundance of these goals. The mere existence of new forms and arrangements of material energy means a basic difference in the underlying structure of the social field. Consequently change in the field is real and change in the concomitant social psychology is real.

The *absolute* heterogeneity of individuals on which Pareto bases his theory has also been shown to be nonexistent. In Chap. XIII we saw that, although traits show similar distributions, the range and central tendencies of these distributions change with control and manipulation. We are hence not foreordained to mediocrity on any absolute scale. That sociological types such as those of the rentier and entrepreneur exist is possible. But even granted social type differences, if there is no basic human nature, changing the field structure will change the goals of both types. The élite may exist but their reaction to the masses is a product of field structure rather than of human nature. The most striking refutation of the theory of circulation of the élite is to be found in the last chapters of this book, in the comparison of the fascist and communist dictatorship. From the Paretan theory these two states should be practically identical. The chief fact of modern history which belies the

Paretan theory is the existence of the Soviet Union. In final analysis, then, Pareto's theory, which is perhaps the most adequate sociology of capitalism which we possess, is unreliable as a tool with which to predict world history. Pareto belongs to the period before the relativity physics and the Gestalt psychology. His social psychology is hopelessly outdated and it is on his social psychology that his whole theory really rests.[1]

4. Theories Which Affirm Change as Gradual

A. The Theory of Social Evolution.—Neither the conservatives nor Pareto are correct in denying change. Change does occur. The question remains: Does it occur gradually or suddenly? Let us first deal with theories which claim that change is gradual. The most important social philosopher of this viewpoint in the nineteenth century was Herbert Spencer(309). In contemporary America various slight modifications of his theory have had many adherents, the most notable probably being that of W. G. Sumner and A. G. Keller(325). The theory in general is based on the application of the evolutionary principle of biology to account for sociological change.

Basis of the Theory.—Methodologically this theory is a historical theory which attempts to account for social change by the process of the survival of the fittest of various forms of social adaptations and their continuance through the traditional behavior of societies. It is well known that great changes have occurred in all our social folkways, mores, customs, laws, and institutions. The theory says in brief that the maladaptations among these variants in social behavior are replaced by better adaptations. This process undoubtedly occurs in social nature and has occurred from time immemorial. However, the theory also claims that such changes are gradual and self-generating. By self-generating we mean that they occur automatically and that man is quite powerless to direct them. Belief in this theory is today very widespread. It was the most popular viewpoint from the time of Darwin to the World War.

[1] In the first number of the new *Journal of Social Psychology* there is a symposium on Pareto which points out his methodological inadequacies. The authors (McDougall, Murchison, Tufts, and House) fail completely to realize that Pareto's present vogue is wholly due to his accurate predictions regarding social change in western Europe.

Probably most of my readers have been taught that change occurs through some form of adaptive selection, a process more or less automatic and gradual. This viewpoint is the prevalent social philosophy of liberal democracy. The political and ethical liberals continue to affirm it. It supposes that the form of society, as well as the form of the organism which composes it, adapts to the changing conditions of the social structure. It supposes that of two different and opposing sets of mores, or of political systems, or of manufacturers, the one will survive which is best adapted to the conditions under which it is supposed to function. Although in the hands of most of its adherents, little is said about the struggle for existence as a bloody and wasteful affair, the basis of this philosophy is to be found partially in the evolutionary theory of the origin of species. This theory of social evolution is a very polite and highly ethical theory. It supposes that we are fortunately through the bloodiest part of this adaptation process.

The theory explains change on the basis of the struggle for existence. Between variant forms (of species, as well as social structure) there is a struggle which results in the consequent survival of the fittest. The fittest adaptations are continued through heredity (of humans) or (in case of social structures) tradition. All the social institutions are in a constant process of adaptation. The existing adaptation is the best it possibly could be under existing conditions. Consequently, change is self-generating and the movement is toward progressive goals. The adherents of this school usually believe in "laissez faire" economics and are against the purposeful striving for social reform.[1]

The theory further supposes that although in the biological world struggle for existence means actual conflict, in the social world of man this has been replaced in the process of evolution by competition. Hence optimal change occurs in modern society when a liberal democratic state regulates competition only to an extent that is consistent with the natural evolutionary forces. The social order and the economic order are hence looked on as self-generative of change and as self-adjusting. This viewpoint led to the wholesale optimism of liberal democracy prevalent up to the World War and was continued by well-meaning liberals through the first postwar

[1] *Cf.* A. G. Keller's *Man's Rough Road*(169) for examples. The doctrine of laissez faire supposes that if humans do not interfere economic processes will adapt in an evolutionary fashion for the greatest common good.

decade. Thus adherents of this viewpoint supported the "war to end all wars," believed in the possibility of a League of Nations, believed in the impossibility of fascism, believed the current crisis would adjust itself out of its own difficulties. Spencer and his followers have made mistaken prediction on mistaken prediction on these grounds. To mention perhaps the most unfortunate one, let us recall that Spencer supposed the military caste in Europe would be replaced by an industrial caste so that war would be eliminated as a social force. This idea is even today occasionally met with in liberals like H. G. Wells(348) and Walter Lippmann(212).

Critique of the Social Evolutionists.—Recent events, above all the war, should have succeeded in showing the complete inadequacy of this view of social change. Not only was the World War conflict on an unprecedented level, but it looks very much as if it were simply the first of a series of world wars. The rise of fascism contradicts the theory of progress and promise through liberal democracy. Increasing research into history has shown that past evolution was anything but gradual and continual. It has also indicated that future evolution will not be of this nature. If one wishes to look forward to the twenty-third century it is quite probable that humanity will have again progressed. But few people can view present events with equanimity and content themselves with visualizing the peace and calm of twenty-third-century humanity. The basic theory of evolution is hence to be looked on as correct, but not the idea that society under liberal democracy had evolved to the state where competitive adjustment would peacefully end all society's contradictions. The spokesmen for this viewpoint mistakenly supposed that all social nature behaved in the gentlemanly fashion of the upper bourgeois at their very best.

There are theoretical reasons which show this viewpoint to be as unsound as its predictions have been unsuccessful. In the first place, based as it is on the theory of natural selection, it supposes this theory to be complete biological truth. Now Darwin was undoubtedly right about the facts of evolution but he was wrong about the method. This has only recently been realized. The theory of natural selection adequately accounts for the selection of traits among the variations in a species but it fails, despite the title of Darwin's great work, to account for the *origin* of species. Similarly the theory of social selection accounts for selection of variations within a given social structure, but it fails to account

at all for the great changes in the basic field structure of society. There is not space to go into modern evolutionary theory, but we can state quite definitely that species arise only on the basis of sudden mutations. In other words even in the biological sphere change is mutatory.[1]

Secondly, the theory supposes that the doctrine of economic laissez faire will succeed when put into practice. Actually, as many say of Christianity, it has never been tried. The reason that, like Christianity, it has never been tried is not that humans are by nature vicious, but that human activity is determined by field structure. The individual does not stand outside the social field and decide his course independently of changes in the physical, economic, and social environment. Changes in the field are reflected in human behavior and human behavior affects the field.[2] The rise of both imperialism and fascism are, as this book has shown, irrefutable arguments against the doctrine of laissez faire. The theory of social selection supposes that the individual is outside the actual social field. It supposes that his judgments are relatively independent of it. These theorists always suppose progress to be automatic. Despite Pareto's many faults, his critique of the Spencerian theory is completely sound on methodological grounds.

Thirdly, the theory completely violates certain social-psychological principles. Actually we have seen that whenever an organized group is threatened with destruction, its organization becomes more complete. The theory of social evolution supposes that when a system, such as an economic system, becomes a maladjustment it will be replaced by a better one. In the long run this has certainly been true, but the process of this change is not one of automatic readjustment but of very real struggle. There is plenty of evidence that, in its present form at least, capitalism is maladjusted. To suppose however that the bourgeois will hand over the reins of the government to socialists by democratic methods is fantastic. It is quite impossible from the standpoint of field theory, as we have already seen in Chap. XX. When the theory of social evolution denies automatic adjustment, but still claims the possibility of creating adjustment by democratic methods, the theory becomes that of evolutionary socialism. Let us turn to it.

[1] *Cf.* The critiques of Darwin given in Woodger(366) and von Bertalanffy(21).
[2] Within the limitations discussed in Chap. XVII, of course.

B. The Theory of Evolutionary Socialism.—For their basic postulate, the evolutionary socialists[1] accept the idea of the gradual evolution of social change, as it is promulgated by the liberal democrats. However they see in the political-economic structure of liberal democracy an institution which is in need of purposeful change. They accept the theory of social evolution but not the doctrine of economic laissez faire. In its place they accept a highly modified form of the Marxian theory of economics, which admits the maladjustive aspect of capitalism but which supposes it may be changed by utilization of the suffrage rights of liberal democracy. They believe socialism may be accomplished by the gradual education of the electorate to the inadequacies of the capitalist mode of production, with the result that the electorate will vote into office men of their own persuasion. Consequently, they assume that the capitalist system may be gradually modified into socialism. They differ from the revolutionary Marxists, of whom we shall speak later, on three basic premises. Firstly, they believe that since Spencerian evolution is possible in other fields it also functions in politics, *but* that this process may be hurried by their agitation. Secondly, they believe that the evolutionary increase in actual wealth has created a type of proletarian and of petty bourgeois who will not be driven into the revolutionary situation (*cf.* Chap. IX). Thirdly, they deny the necessity of a war between the classes, *i.e.*, they deny any basic antagonism between the bourgeoisie and the proletariat. Consequently they believe in the automatic trend toward collectivism as an evolutionary end in itself, which may be brought about through the existing state apparatus. Change occurs, but change is gradual. Change is not completely self-generating, as the liberal democrats maintain, but may be pushed by political activity. They hold beliefs somewhere between the liberal democrats and the Marxists, of whom we shall speak shortly.

That the economic system is not completely self-adjusting becomes daily more obvious. In this the socialists seem to be more keenly percipient than the liberal democrats. But the socialist prediction that power may be gained through liberal democratic political mechanisms is completely false. In the modern world, the socialists

[1] By evolutionary socialists we mean the adherents to the program of the Second International as opposed to revolutionary socialists, the adherents of the Third International.

have often approached this goal.[1] *Whenever they have been within striking distance of their goal, there has ensued a reactionary movement which has outlawed socialism.* The events in Italy, Germany, Austria, and Spain all in practice invalidate the socialist's theory of the possibility of a gradual evolutionary transition to socialism. The socialists place too great a reliance on social evolution. Secondly, their criticism of the more extreme Marxists to the effect that capitalism has created a satisfied petty bourgeoise and a satisfied proletariat, who are not revolutionary, has suffered rude shocks and setbacks in the great depression. Thirdly, their arguments that the class war is not a social force of consequence are based on the study of fields of expanding freedom of social locomotion (*cf.* Chap. VII). Consequently their three chief criticisms of the Marxian doctrine of revolution are unsound.

Critique of the Evolutionary Socialists.—From the standpoint of the field theory the socialist program is based on fallacies as serious as those of the social evolutionists. Among other premises which are social-psychologically not valid is the socialist idea of the state. In socialist theory the state becomes an entity outside the field, under control of the people's *will.* According to them the only reason that the people do not establish the more satisfactory form of collectivistic government, which they desire, is because of their backwardness. The state, as we saw in Chap. XVIII, is actually the instrument of class rule. Consequently the state does not change hands on the mandate of an electoral majority. The bourgeoisie as a class strengthen their control of the state when they are threatened. This leads to fascism. Secondly, the socialist program fails completely to allow for the extremely rapid changes in social attitude with major changes in the social field structure. The bourgeois, who still tolerate socialism as a subject matter for debate, will not tolerate it in power. The people's attitudes fall into chaotic disorder with long periods of falling degree of freedom of social locomotion. The process of education becomes further extremely difficult because the socialists' powers of furthering education are very limited. The socialists, believing that evolution of a progressive nature must occur, are not able to meet the retrogressive phenomenon of depression. And it is only under depression that class membership-character is enhanced sufficiently for them to make much headway.

[1] In England twice, in Germany and Austria frequently. In Spain, Italy, Hungary, at least once.

Finally when the conflict situation tends to a revolutionary situation, the socialists are unable to take over the state power, given as they are to theories of gradualism and democratic method. That revolutions do occur has been well evidenced by modern events. The socialists very seriously overemphasize the rule of "free choice" both in themselves and in the electorate during radical field restructurization. Consequently the theories of both the social evolutionists and the evolutionary socialists are inadequate theories of social change.

5. Theories Which Affirm Change as Mutatory

A. Spengler's Theory of Cultural Cycles.—We come now to the theories which affirm change as being sudden, so that radically new organizations come out of it. The first of these to be considered is Oswald Spengler's(311). Spengler claims that societies are vast "organisms" with a period of growth, a period of constructive adulthood, and a period of old age. The culture dies finally, just as the individual organism dies, and is replaced by a new and lustier culture, as the individuals are replaced by a new generation.

Spengler bases his theory on the comparative study of cultures. From a detailed reading of the literature, contemplation of the art, and study of the science of various cultures Spengler is able to point out quite definite similarities in all these aspects of the various cultures. In recorded history we have examples of at least ten such cultural cycles. These are, with the dates of their lives, the following.[1]

Table 9

1. Sumerian-Akkadian	3200	–1700 B.C.
2. Egyptian	2800?	–1100? B.C.
3. Hittite-Assyrian	1800	– 333 B.C.
4. Ancient Chinese	1500?	– 0 B.C.
5. Ancient Hindu	1500	– 0 B.C.
6. Classical	1200 B.C.	– 200 A.D.
7. Arabian	0	–1400 A.D.
8. Mayan	200	–1500 A.D.
9. West European	900	–2300? A.D.
10. Russian	1800 A.D.	

Furthermore he believes that each of these civilizations goes through similar stages whose approximate lengths are indicated in Table 10.

[1] The following tables are taken from Folsom's(107) *Social Psychology*, p. 570.

Our present culture, the Faustian, or western European, started its upward swing about 900 A. D., celebrated its youth through the time of feudalism, came of age, so to speak, around the middle of the seventeenth century, remained moderately active and useful until the turn of the present century. Now it is to be looked on as in decline. There is no hope for western European industrial civilization really to expand culturally again. The next few years will see the growth of Caesarism.[1] Then western European culture will gradually relapse into barbarism to be replaced by some completely new form of culture.

TABLE 10

Years since beginning	
0	Precivilized, amorphous tribes
0– 200	Feudalism—myth
200– 400	Feudalism, increased power of nobles, faith
400– 600	Last stage of feudalism, natural and scientific thought (reformation era)
600– 800	Tyranny, real states formed, individual thinkers, and systematic philosophy
800– 900	Relaxation of form, rise of large states, rationalism, return to nature
900–1100	Rise of the proletariat, warring states, materialism, skepticism, socialism, humanitarianism, pessimism, theosophy
1100–1200	Caesarism
1200–1400	Empire system, systematization, compilation, stagnation
1400–1600	Stagnation and close

That Spengler has done great service in showing the relation of the most various expressions of a culture (art, science, literature, government, even the popular mores and folkways) to its underlying pattern is certainly to be affirmed. Here the relationship of Spengler's theory to field theory is very close. As we have pointed out throughout this work all such phenotypical data are to be derived from the underlying field structure or genotype. Spengler, however, bases his phenotypical data on very unscientific constructs. The concept of "destiny" rules, the "spirit" of the culture. Spengler's underlying genotype is a nonobservable causal factor. Of Spengler's many critics perhaps S. Hook(152) has seen this most clearly. Hook says:

[1] By Caesarism Spengler means a period of imperialism and strong absolutistic dictatorship.

When we inquire, however, what determines the character type or pattern of a specific culture, why the categories of finitude, quality, and natural order, are central to Greek culture while contemporary Europe and America are so much concerned with process, quantity and experience, why the "world-feeling" of medieval culture is so different from that of the Renaissance—Spengler, like Hegel, answers in terms of metaphysical abstractions. It is the soul or spirit of a people which expresses itself in its culture, and the spirit of a people in turn is an expression of spirit as a primary metaphysical reality. Indeed, Spengler even appeals to "the style of the soul" to account for the fact that different peoples have produced different types of mathematics. Spirit, soul, style, destiny—all these are one. They are the ultimate determining force of whatever exists. They cannot be explained; but they explain everything else:

"Style is not . . . the product, of material, technique and function. It is the very opposite of this, something inaccessible to art-reason. It is a revelation of the metaphysical order, a mysterious must, a Destiny." [*Decline of the West*, I, Chap. VII.]

Here we have a conception of culture which is not empirical but essentially mystical (as are all objective idealisms); which at best accounts for the organization, not its development; which is fatalistic and denies to human beings genuine creative power; and which is distinguished for its cool disregard of the immense importance of cultural diffusion and social heredity in Western history.

The key weakness of Spengler's architectonic construction is to be found in his use of the terms "spirit" and "soul" to explain differences in culture. If spirit determines an existing culture, what determines spirit? And if spirit is self-determined, why cannot the culture-complex be self-determined? If spirit is the source of such different institutions as slavery, feudalism and capitalism, how account for the fact that they appear *when* they do, and in the *order* they do? Every culture shows a conflict between different groups which develop their own ideologies. How can the spirit of the age or people or nation account for these different expressions? Why did the reformation succeed in Northern Europe and fail everywhere else? Why did the "spirit of freedom" liberate Europeans from slavery and feudalism only to reimpose slavery upon the Negroes in America? It is clear to invoke the soul of a culture as an explanation of a material culture is to invoke a mystery. [From S. Hook, *Towards the Understanding of Karl Marx*, John Day Company, Inc., New York, 1933, pp. 80–81.]

Spengler as Prophet.—The educated world which largely still held to the belief in progress promised by the liberal democratic political state and the laissez faire economics was shocked by the

appearance of Spengler's work, as it was by that of Pareto.[1] Here were two individuals, scholarly, even to a certain extent scientific, who questioned the optimism of liberal democracy. Pareto, who simply denied progress, however, was mild in his prophecies compared with Spengler, who saw western culture definitely doomed. Spengler like Pareto predicted war and fascism, the definite end of the liberal tradition in Europe and North America. But he predicted it on a basis of real change rather than illusory change. At first Spengler was ridiculed. But the events of the last ten years have borne him out. In Italy and Germany and to a lesser extent all over central Europe and discernibly in America such events have occurred. He predicted the war and the war occurred. He predicted the rise of fascism. He has recently become the philosopher of German fascism just as Pareto became the philosopher of Italian fascism. Spengler does not find in fascism any absolute good. But according to Spengler fascism is inevitable in our culture at our time. According to him "our backs are against the wall"; our duty as humans is to go down fighting.[2] From the standpoint of prediction of events under capitalism Spengler may well be looked on as a major prophet.

We saw, however, that in the realm of practical prediction the Paretan theory was tremendously embarrassed at the phenomenon of contemporary Russia. Pareto, however, for his own peace of mind as a prophet, died (1923) and did not have to deal with the Russian experiment. Spengler, who lived until May, 1936, could not ignore it. How does his theory account for it?

Spengler is not so blind as not to see the tremendous success along certain lines at least of the Russian experiment. While western Europe is on the decline, Russia is progressing. According to Spengler each culture has an organic unity, as we have seen. So Spengler is forced to deal with Russia as a new culture—a culture

[1] Spengler undoubtedly enjoyed the greater popularity of the two however because of the florid expansiveness of his style. Pareto actually is a much more scientific methodologist.

[2] Neither Pareto nor Spengler, both of whom are men of broad education, can be said to be philosophers of fascism as Marx may be said to be the philosopher of communism. There is reason to believe that Pareto would consider Mussolini just another politician. Certainly Spengler cannot adhere to Hitler's extravagance that "Nazism will conquer the world and become a stable government form for at least one thousand years."

characterized by drives toward a horizontal spread of economic goods rather than vertical Faustian striving toward individual attainment. This culture which is just beginning will be characterized by a different "spirit" from that of the Faustian culture and we as western Europeans could not possibly be happy under it. Consequently our "destiny" as western Europeans is to fight against this new culture, if necessary to go down with "our backs against the wall." Spengler has thus become a semiofficial spokesman for fascist attacks on the Soviet Union.

Critique of Spengler.—Here Spengler's attitudes like those of Pareto are determined by his class membership-character. That individuals of Spengler's tastes, social position, and wealth[1] have much to lose under a Soviet government, no one could possibly deny. Spengler was a very cultured person, he knew much of history, art, literature, and science. In fact he was one of the most cultured persons of today. Few have been more imbued with the "Faustian Spirit." But Spengler forgot that the vast majority of individuals living under Western industrialized civilization have taken no part whatever in the particular *Weltanschauung* of Spengler's philosophy. He wished to sacrifice the vast majority, to hold them at a starvation level, in order that a few like himself may have complete freedom. The Spenglerian argument waxes very weak indeed at this point. He detests the vulgar masses and considers them biologically completely and eternally damned to mediocrity. His social psychology like Pareto's is hence class-theoretical and implicitly highly evaluative. Success of the Russian experiment is not a success that he, Spengler, could particularly relish.

The Russian experiment belies still another Spenglerian postulate, namely, that the new culture must have its own particular form and cannot take over any particular social structures of a preceding culture. The Russian Socialist Soviet Union has taken over the particular machine culture of western Europe with unprecedented success. Spengler's prophecy that the Bolshevik state would fail in its industrialization has been most unfortunate. Anyone who has been to Russia has seen the forms of production developed under Western civilization unctioning in the new state.[2]

[1] His works have had a tremendous sale.

[2] It is quite true that the industrialization of Russia under the Five-year Plan was no easy matter and in many places was tremendously inefficient at first. Spengler was not alone in predicting its failure. Most engineers abroad considered it impossible.

In Spengler as in Pareto there remain much of essentially class-theoretical analysis and a strong belief in original "human nature." Spengler, as Hook pointed out, is essentially an Hegelian. Concepts like "cultural destiny" and "Faustian spirit" are abstractions based on appearances rather than on adequate methodological concepts. Hence Spengler attributes the ideology of his own class to a vague something called the "Faustian spirit." He has failed completely to analyze the exact field structure underlying other classes. Spengler believes furthermore in the immutability of the ideology of a system except for its change in the general process of growth and development. On this basis, he predicts the disability for western Europe to be revived under communism. Furthermore he is a strict believer in certain biological postulates of human nature. Man, for instance, is by nature a fighting animal. In this he is very similar to Pareto. They both believe that supermen are born, so to speak, not made, and that the vast majority must remain by nature stupid and vicious. If this were so, and we hope the reader is now able to see that it is *not* so, there might be some justification of the Spenglerian-Paretan ethics. This ethics seems to give much support to fascism.

Of the thinkers so far mentioned, Spengler comes nearest to the postulates of field theory in his insistence that the basic pattern underlying a culture determines its interrelationships. Where Spenglerian theory falls down and makes its very disastrous mistakes in prediction is in attributing this pattern to a scientifically meaningless something called "destiny." There are great similarities between the Spengler theory and that of Marx, which we shall next discuss. The great difference is that Marx's theory is based on a much more adequate determinant for the pattern, *i.e.*, on the doctrine of economic determinism.

B. Marx's Revolutionary Progressivism.—Marx, like Spengler, claims that cultures have an organic pattern of a unified nature, so that political and economic structure are interrelated with the art, science, literature, religion, fashions, and even social mores of the culture. It is one of Marx's greatest accomplishments to show to how great an extent this is true; thus the resemblance between Marx and Spengler. But the Marxian theory is based on quite a different methodology and leads to quite different predictions concerning the outcome of the present crisis.

The Marxian philosophy of society is a tremendous and imposing structure. It consists in a methodology for the study of sociology and history, a theory of history, a theory of economics, a theory of political science, and a great number of practical maxims for the individual politician who wishes to apply this philosophy to life. Marx's writings covered mathematics, history, economics, sociology, politics, and ethics. His chief colleague Engels wrote on all of these things as well. And most of them have again been handled by his modern disciple Lenin and his most important contemporary disciple Stalin. And in addition to these leaders there have been a host of writers on every possible subject from theories of economic crisis, through theories of social ethics, to theories of how to write poetry, whose philosophic position might be said to be Marxist. Furthermore these writers have never been in complete agreement among themselves as to what constitutes the Marxist philosophy and at times have engaged in furious internecine struggle. But out of all this great literature with its apparent contradictions and its superficial disagreements it is possible to separate certain definite postulates, which lead to certain quite definite predictions, which have been quite precisely tested in recent historical events. We shall have space for only such a development of the Marxian social philosophy here.

Dialectical Materialism.—Marx bases his social philosophy on the method of dialectical materialism. Dialectics to the Marxist is simply a study of the general laws of motion of physical nature, of biological nature, and of society and history. The dialectical laws which the Marxist uncovers might be called in our nomenclature the basic dynamical genotypes. Marx was a student of the German philosopher Hegel, who built the last great system of idealistic philosophy on the basis of a dialectical idealism. Hegel believed that the laws of the development of world processes simply mirrored the laws of the development of logical thinking. In logical thinking one must start with a thesis, which suggests its own contradiction or antithesis. In the face of this antithesis the thinker is forced to view the contradiction from various aspects and out of this process comes a synthesis or development of a new idea in which the former contradiction is resolved. Now it is undoubtedly true that our thinking follows some such zigzag process. In biological science, for instance, if I start with the thesis that human behavior depends

on heredity, in the course of my observation and experiment I soon get to the antithesis that human behavior depends on environment. This negation of my original premise itself is negated or the contradiction is resolved when through synthesis I treat human behavior in terms of a field theory. Similarly in mathematics I may start with the equation $v = s/t$, negate it by the differential process ds/dt, which may be integrated, and out of the process I get a path, something more than I started with. Hegel believed that the process of world history mirrored such logical processes, so that history itself was simply the unfolding of logical ideas. Hegel considered the whole course of history simply the gradual evolution of world ideas. As we pointed out above, Spengler is using Hegelian concepts in his idea of the gradual growth and decline of the ideas of the Faustian spirit. The Hegelian idea lacks tangibility, lacks the possibility of the critical experiment.

Marx accepts from Hegel the conception that there are laws of dialectic, *i.e.*, laws governing the great dynamical changes. He also accepts the allegation that these laws are discoverable by the dialectical method.[1] Furthermore he accepts that the laws themselves although they represent absolute truths are provisional or relatively absolute truths conditioned by the historical process. Marx finally accepts the Hegelian postulates that change is real and that all the aspects of a culture are related by an historically determined underlying genotype.

As to the nature of the underlying genotype, however, Marx disagrees sharply with Hegel. Separating Marx and Hegel are the great discoveries of nineteenth-century physics and biology. These discoveries sounded the death knell for German idealistic philosophy which had grown topheavy from the time of Immanuel Kant. The first application of the new discoveries resulted in a period of decline in philosophy and a belief in materialism. Marx believed in the materialism of his time, but could not share the vulgar optimism of the positivistic materialists. The new discoveries, which led to the

[1] In Appendix A, Section 4*D*, we give a much more detailed discussion of the relationship between dialectical materialism and field theory. One of the reasons why novices find the discussions of Marxists concerning dialectical materialism so confusing, even mystical, is that dialectic is used to refer to (1) a system of logic, (2) a system of epistemology, (3) the laws of natural science methodology, and (4) historical processes. That these things are related, I believe, is quite certain. The Marxists have never, however, written explicitly enough about the interrelationships between these.

thesis that material well-being at least could be taken care of, led also to the antithesis created by the profit system, which would only receive synthesis through the overthrow of private property and the establishment of a new political state form. Marx failed to accept the optimism of the materialists and refused to lose his historical sense. Marx believes in the dialectic but in a dialectic based on materialism. The sequence of events in human logic and philosophy *mirror* the events of the natural, materialistic, physical world. Mind, the human consciousness, the human logic are temporarily and causally secondary to the physical world. As Engels said, Marx put Hegel on his feet. Certainly the Marxian philosophy here stands nearer to the findings of modern natural science than the Hegelian.

History, then, is a dialectical process whereby the forces of nature evolve in such a way that really new syntheses occur on the basis of the resolution of previous antitheses. Nature is in a continuous dynamic flux. Out of this flux there have evolved new forms, first life out of the inorganic, then society out of life, then forms of society, primitive communism, feudalism, capitalism, and finally (at Marx's time unrealized) communism. And each of these societies develops its own antitheses or contradictions which are resolved or synthesized at the next higher level. Thus feudalism could not adapt to the new trade routes and the possibility of industrial expansion which occurred within its frame, and capitalism in the creation of the modern market represented a better adjustment. At the present time there exists the contradiction created by the profit system to an industry already collectivized and this antithesis may be resolved only under communism, where capitalist crises of overproduction are impossible. In the future communism will be replaced by something else. Throughout this process there has been progress, if by progress is meant increase in ethical freedom,[1] but this progress has been by no means continuous. According to Marx, changes originating in the sphere of the material are mirrored in men's consciousness, and the realization of the antitheses of nature so mirrored compel men to strive to change these things, or, as Sidney Hook(152) puts it:

> From objective *conditions*, social and natural (thesis), there arise human needs and purposes which, in recognizing the objective possibilities in the given situation (antithesis) set up a course of *action* (synthesis) designed

[1] *Cf.* Chap. XVII, on ethical freedom.

to actualize these possibilities. All change from one social situation to another, and from one social system to another exhibits (1) unity between the two phases, in that certain features are preserved (*e.g.*, the technical forms of socialized production under capitalism are preserved under communism); (2) difference, in that certain features of the first are destroyed (*e.g.*, the social relations of capitalist production, private property, etc.); and (3) qualitative novelty, in that new forms of organization and activity appear which change the significance of the old elements still preserved, and which cannot be reduced merely to a mechanical combination of them. The process of creative development continues for ever. There are no laws of social life which are invariant except the general schema of development. At a critical point in the complex interaction of (1) the social institutions from which we start, (2) the felt needs which their immanent development produces, (3) and the will to action which flows from knowledge of the relation between institutions and human needs, new laws of social organization and behavior arise. [From S. Hook, *Towards the Understanding of Karl Marx*, John Day Company, Inc., New York, 1933, pp. 84–85.]

Historical Materialism.—Thus man has an active role in history. He makes his history, but he is limited by the existing objective conditions of his particular times. This part of the Marxian doctrine has been called "historical materialism" and may best be summarized in Marx's(231) own words:

The mode of production in material life determines the general character of the social, political and spiritual processes of life. It is not the consciousness of men that determines their existence, but on the contrary, their social existence determines their consciousness. With the change of the economic foundation, the entire immense superstructure is more or less rapidly transformed. In considering such transformations the distinction should always be made between the material transformation of the economic conditions of production, which can be determined with the precision of natural science, and the legal, political, religious, esthetic, or philosophical—in short, the ideological forms in which men become conscious of this conflict and fight it out. Just as our opinion of an individual is not based on what he thinks of himself, so can we not judge of such a period of transformation by its own consciousness; on the contrary, this consciousness must rather be explained from the contradictions of material life, from the existing conflict between the social forces of production and the relations of production. [From K. Marx, *Contribution to the Critique of Political Economy*, Charles Kerr & Company, Chicago, 1911.]

In human society basic material change occurs in the field of economic production. Marx does not say that the mode of economic production is the sole determinant of social change nor does he say that every single aspect of a culture is determined economically any more than Freud said that everything is sex. But Marx did say that the *chief* motive forces for human sociological change are to be found in the economic production system. By an economic production system Marx means the system of relationships through which economic goods are manufactured and distributed. This is the well-known doctrine of economic determinism. The relations of production include existing technologies, skills, and, above all, existing property relationships. The theory of economic determinism is basic to Marx's *magnum opus*, *Capital*(233), which presents in detail the Marxian economic theory. The argument of capital is in brief the argument that capitalism contains in its own antitheses the seeds of its own destruction. In a few lines one cannot reproduce the argument of Marx's *Capital*. The most we can do is give the conclusions to which he comes.

The Critique of Capitalism.—Classical economics studied the mechanics of economic distribution and production under the capitalist system. The earlier economists followed Adam Smith(304) in adopting a minimal amount of psychological theory. They simply supposed the unit of the "economic man," who would act in terms of an enlightened self-interest.[1] The science was interested in determining the functional relationships between supply, demand, and price on the supposition of the *existing techniques of production and the existing economic system of property relationships and an existing and immutable "human nature."* On the whole they concluded that the optimal functioning of the economic system would ensue with minimal restraint in trade or that the economic doctrine of laissez faire was sound. The classical economists were mechanists, optimists, and liberals.

Marx's economics, although he attempted to account for the mechanics of supply and demand under capitalism, were primarily concerned with the dialectics rather than with the mechanics of capitalism. *Capital* attempts to discover the chief law of motion or development of capitalism. Furthermore his economics is much more concerned with psychological theory than are the theories of

[1] Contemporary conservative economists attempt to get along without any psychological theory at all. *Cf.* Robbins(285).

the orthodox economists. These supposed the immutability of human nature. Marx supposed, and here his philosophy is based on a sound social psychology, that the social psychology of the individual depended on the times and the individual's position in the productive process. Consequently the subject matter of Marx's *Capital* is very different from that of most of the treatises on orthodox economics.

The chief laws of motion or the development of capitalism are the laws governing capitalist accumulation and of these the chief law is the "law of the falling tendency of the rate of profit."[1] This law states that the capitalist system of economic distribution can function only when the total amount of profit is increasing fast enough to more than offset the inevitable fall in the rate of profit. This is what occurs during periods of capitalist expansion. Now, according to Marx, profits represent the value which accrues to the capitalist because he possesses the means of production. This possession allows him to deduct a certain amount of the due wages of the laborer. Actually labor is the only source of value and consequently profits represent unpaid labor. Accumulated capital represents the unpaid earnings of past generations of insufficiently rewarded laborers. If labor is the only source of value, the only source of profit must be in the variable capital or the wages paid to the laborer. But under advanced capitalism an increasing proportion of the costs of production are in the capital accumulated. This leads to a continual fall in the rate of profits, as the only source of profit is in the labor and rate is calculated on the basis of total capital outlay. Consequently rates of profit fall and this fall must be counterbalanced by increases in the amount of capital invested. Such increases in modern times must go into producers' goods. The law of falling tendency of the rate of profit hence makes capitalism into a vicious circle, where more and more of the products of labor are forced into making machines to make machines and where less and less are consumed by the masses. However, since it is inherent in capitalism that periodically conditions are such that entrepreneurs

[1] Marx, *Capital*, Vol. III, Part III. Only a few people have read *Capital* at all and of these only a very few have gotten as far as Vol. III. This is deplorable because Vol. III is the crucial part to the whole Marxian economics and the Marxian economics is crucial to Marx's social philosophy. Not only is *Capital* seldom really read but many learned commentators on it who have read it have failed to digest Vol. III.

see no possibility of profitably investing the funds necessary for this accumulation to occur, economic crises under capitalism are unavoidable. It is also implicit in this law that such crises must increase in severity. Now it is a social-psychological fact that capitalist crises create social unrest, in other words, enhance the class struggle. Consequently capitalism *must* result in increased class struggle and will end in either a socialist revolution or chaos. Capitalism creates a situation in which its highly efficient industry must periodically jam. Its highly efficient industry, however, has created a situation of collectivistic activity among the workers which allows for a synthesis between modern industrial efficiency and its antithesis of periodic capitalist crises. The basic contradiction of capitalism is the contradiction between the social character of production and the private or individualistic control which determines whether or not it is profitable for production to go on. Lenin(192) has described this contradiction as follows:

> All production thus merges into one social production process, whereas each enterprise is managed by a separate capitalist, depending on his arbitrary decisions, making the social products his private property. Is it not clear then that this form of production comes into irreconcilable contradiction with the form of appropriation?" [From N. Lenin, *Collected Works*, Russian ed., Vol. I, quoted by Leontiev(193).]

This contradiction between collectivistic productive efficiency and anarchistic capitalistic production for profit is mirrored in the antagonism between labor and capital. An outcome at a higher synthetic level lies only in the proletarian revolution. Capitalism's usefulness to humanity is over at the present time. Capitalism, which represented a synthesis of the contradictions which feudalism as an economy fell into, has dialectically developed its own contradictions. Capitalism was a necessary stage in the whole historical process. In fact it was very useful because the capitalist system of production *created* the necessary material basis for socialism and is *creating* the social psychology necessary for its establishment.[1]

[1] The five-year plans in Russia represent a completely consequent application of Marxian economics to the problem of the creation of socialism. The first five-year plan may be said to represent the necessary accumulation of capital (in the hands of the *state*, however), which is prerequisite to communism. In this case the unpaid labor or surplus value, which under capitalism becomes private property, is held in trust for the workers by the state. When the industrialization of Russia is completed only such surplus value (or profits) will

In brief the Marxian economics, then, attempts to account for the origin of capitalism, its initial colossal successes as an economic system, its heyday, and finally its present embarrassments. It does this on the basis of economic laws of a dialectical nature. Marx's final conclusion concerning the course of history under capitalism in our day is just as pessimistic as Spengler's. We stand in an epoch where the antagonisms of an economic system of production have become critical. Capitalism must undergo a series of crises of increasing severity. For reasons which follow from Marx's economics capitalism can only continue over a long period of time with permanent unemployment, with falling wages, with imperialist wars. Capitalism may only succeed while "the rich get richer and the poor get poorer." And this state of affairs in itself breeds social class consciousness on the part of the worker and consequently enhances the class struggle. Capitalism may meet this state of affairs only by establishment of a fascist dictatorship. From the standpoint of the immediate interests of the capitalists fascism is quite a consequent development of Marxian theory.[1]

Critique of Marx.—Spengler, however, considered modern man a victim of the "destiny of the Faustian spirit." It is his *methodology* which leads to his extreme pessimism. Marx on the other hand has a decidedly optimistic side. Man is not the tool of destiny. Man may make his own history within the existing materialistic-historical situation. Nature has created the modern threat of chaos, but with this threat has created the objective conditions necessary for the establishment of communism. Under socialism man may go on to even greater goals. Communism will also develop contradictions but that time is too far off to concern us. In the meantime, capitalism is dying and cannot be revived and our choice, in so far as we may choose at all, is limited to the choice between communism and chaos.

So much for the Marxian theory. Like the theories of Pareto and Spengler, and those of the social evolutionists and evolutionary socialists, it leads to certain predictions concerning actual sociological events. It is on the basis of these that the theory may best be tested

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be taken by the state as is necessary to cover social services, repair, and planned expansion. Already in Russia wages are rising and prices falling owing to a planned decrease in the rate of surplus value.

[1] The last paragraph contains ideas only implicitly stated by Marx. Their explicit statement was made by his follower, Lenin(186).

scientifically. We have already seen that the theories of the social evolutionists predicted nothing which has occurred and hence may not be looked on as scientific at all. The theories of Pareto and Spengler predicted quite accurately the course of events in the capitalist countries but were severely embarrassed by the initial progress of the Soviet Union. To the credit of Marx it must be said that his prediction of the collapse of capitalism and the success of communism are both being confirmed along broad general lines. Today we are living in a world situation which was more adequately predicted by Marx than by any other social philosopher.

From the standpoint of the theory of social fields the Marxian theory is verified in certain aspects and to be criticized in others. Of our criteria for a field theory Marx fulfills more than any theorist we have mentioned. Marx's social psychology is furthermore in better agreement with the findings of field theory than any other. It is the only theory which denies local determination of social-psychological reaction tendencies and implies that human nature is always dependent on social field structure. The Marxian analyses are always of a functional nature.[1] The dialectical method is closely related to the hypothetico-deductive method.[2] Marxian theory is chiefly concerned with "how" rather than "why."

This does not mean that every aspect of Marxian theory is in agreement with the field theory. Marx himself was a professional revolutionary and his concepts and thinking were always colored by this fact. To a certain extent they are evaluative because his sympathies are always with the proletariat. Marx indulged in dichotomous thinking in his treatment of proletariat and bourgeoisie. In Chap. IX we saw that there is no class struggle inherent in nature. At some times Marx wrote as if there were. In his own time Marx overemphasized the potency of class membership-character and underemphasized that of national membership-character. This was undoubtedly the source of many errors by Marxists through the later part of the nineteenth century. Marx did not completely foresee the complete development of "constructive capitalism" nor did he foresee the complete development of imperialism.[3] However, such criticisms cannot hide the fact that

[1] For instance, classical economics always looks on capital as a substance; Marx defines it as a relation.

[2] This relationship is treated in some detail in Appendix A.

[3] This, however, was foreseen by his disciple, Lenin.

Marx was one of the major thinkers of all times. In fact his own system contains the excuse, if that is necessary, for his own imperfections. Knowledge, he taught, although it has some of the attributes of the absolute is always imperfect, always relative to the historical situation.

Are Marx's predictions correct? The core of the Marxian social philosophy is the Marxian economics. If the Marxian economics is sound, the Marxian predictions *in general* are correct. Now it is only fair to point out that the vast majority of contemporary orthodox economists are not in agreement with the Marxian economics. The author must further state that he does not consider himself professionally competent to choose between rival theories of economics. Although we have been interested in economics in this work our chief purpose has always been simply to trace the effects of economic change on social psychology. On the other hand, it is also only fair to point out that modern orthodox economic theory, while criticizing Marxian theory, has not been nearly so successful in actual predictions of economic processes as has the Marxian theory. This state of affairs forces the author to conclude that unless professional economists devise some method of preventing recurrent capitalist crises and imperialist wars Marx is correct in his prediction that capitalism is preparing for its own downfall. It is hard to imagine that even the most staunch supporter of capitalism would wish its continuance under such conditions.

6. Summary: Field Theory and Social Change

We can best summarize the findings of this chapter by answering from the standpoint of field theory the questions concerning social change with which we started this chapter. First we were concerned with existence of change. Does change occur? Our answer to this question must be an affirmative. Invention and manipulation lead to a restructurization of the social field. This restructurization in turn works back on the social psychology of the individuals within this field. There are no traits of human nature independent of such changes. The modern world is in a very real sense different from the ancient world. Today is different from yesterday, and tomorrow will be different from today. The application of inventions to human society completely reorganizes the social structure. Thus change, despite the beliefs of the conservatives, does occur and contrary to the beliefs of Pareto it is real rather than illusory. Does

change mean progress? This we must answer with the words, "Not necessarily so." Progress is a useless concept unless we define it. If progress means increase in the freedom of social locomotions the general trend of human history has been toward progress. But this trend has been interrupted time and time again by reversals. Change does not necessarily mean progress. The theory of Spengler says that the next great changes will be away from progress as so defined. The theory of Marx says that the next great changes may be toward progress at a faster rate than has previously been considered possible. The theory of the social evolutionists considers that change means gradual progress. From the standpoint of the field theory, whether or not the next change will be progressive depends chiefly on economic events, which are outside the limits set for this book. Is change gradual or mutatory? Change is both. Fields may become restructured at very different temporal rates. That events occur sometimes with such speed that they may be looked on as mutatory seems to be an unquestioned fact. Revolutions have occurred as well as evolution in general. Modern life is by no means insured against them. Consequently the doctrine of both the evolutionary socialists and the social evolutionists that change is inevitably gradual may be looked on as unsound. What actually happens is that a long series of evolutionist changes may gradually create a situation where revolutionary change occurs just as water is gradually heated to 100°C. before it boils. There is considerable evidence on every hand that we stand at such a historical period. Revolutionary changes, however, are not overnight changes and revolutions must be looked on simply as social restructurizations of suddenly increased tempo. Change, then, occurs, but change does not necessarily mean progress and may be mutatory.

We secondly asked, granted that change occurs, what causes it? Is it ideas? Ideas do not create change if by ideas we mean something over and above the material world. There is no such thing as spirit or destiny independent of physical nature. The supposition of such entities led, as we saw, to the predictive failures of Hegel and Spengler. Is it purely physical nature? Matter or physical nature exists only in motion. Matter in motion may be looked on as the carrier of real change. But for practical purposes, where we do not know the complete laws of matter in motion we may suppose that ideas influence it through human activity. Is it both com-

bined? We must suppose that change occurs sometimes when humans act on matter and manipulate it. Roughly, change in physical nature creates changes in the consciousness of some individuals and they in return change physical nature.

Our next question dealt with man's ability to create change. Is man able to create change rationally? The answer to this question must be, only very rarely. Actually, as we saw in the chapter on leadership, there are very great limitations on man's freedom of choice. However, when we are not able to give the conditions which determine this choice in terms of operational definition, man enjoys freedom. Man, then, can effect social change within the very stringent limitations placed by the structure of the social field upon him. Here Spengler and Pareto err to the extent of believing in too much determinism, while the evolutionary socialists believe in too much freedom. Man can choose and can effect change, but both what he will choose and how much he will effect the change are very limited. All signs indicate that the next few years will be years where change occurs with extreme rapidity. The final outcome of these changes is quite uncertain. It is hoped, however, that the material presented in this book will help the reader to understand these changes and view his own role in them with greater equanimity. Any social psychology which does not do at least that much is worth nothing at all.

Bibliographical Note

Other works which attempt some clarification of existing social philosophies are Sorokin(308), Cole(62). The following are more concerned with the political consequences of the various social philosophies: Beard and Smith(16), Strachey(319), Dennis(77).

Pareto's chief works of sociological import are the *Trattato*(263) and *Les Systèmes socialistes*(262). The *Trattato* has been discussed in this chapter. The *Systèmes socialistes* is a criticism of and a polemic against the socialists, particularly Marx. Eulogistic and explanatory of Pareto's system are deVoto(339), Henderson(140). Most of these works are highly deficient in criticism. In middle ground is Sorokin(308). Very critical of Pareto is the symposium in the *Journal of Social Philosophy*(221, 156, 246, 337). The best brief reviews of Pareto are those of Cowley(69) and Lerner(195).

The chief work of the social evolutionists is undoubtedly H. Spencer's *Principles of Sociology*(309). Following Spencer in essentials are the works of Lippert(210), Sumner(324, 169), Sumner and Keller(325). Influenced by or taking the general position of Spencer have been most of the orthodox sociologists. Sorokin's(308) critique is good. The evolutionary socialists of theoretical

importance are Hilferding, Kautsky, Bernstein. Sidney Hook(152) gives a good account of their views and a criticism of them.

Spengler's *magnum opus* is *The Decline of the West*(311). Since then he has written in the same tone *Man and Technics*(310). His most recent work, *The Hour of Decision*(312), is an outright apology for fascism. There is a tremendous literature on Spengler; *cf.* the review of this literature given by Schroeter(296). Spengler's work is summarized and critized in English by Goddard and Gibbons(130).

The best works on dialectical materialism are those of Engels(98, 97), Lenin(187), and Adoratsky(5). Of these Lenin is too long and too much concerned with polemic against Russian philosophers unknown in America to hold the interest of the average reader. Adoratsky is perhaps too simple. Either Engels' *Feuerbach*(97) or his *Anti-Dühring*(96) is better. There has recently been an increased interest of natural scientists in dialectical materialism; *cf.* Emery(94) and Struik's(323) review of Engels' *Dialektik der Natur*(98). The Marxian philosophy of history is given in Marx and Engels(237), Marx(233, 231, 234). From the sociological standpoint this work is summarized in Bukharin(47). The Marxian economics in full may be had only from *Capital*(233). Briefer expositions by Marx(235, 231), exist. The best very brief exposition of Marxian economics is that of Leontiev(193). Strachey's(319, 321) two books together give a very readable and accurate presentation of Marx's whole philosophy. Very few criticisms of the Marxian theory are at all accurate in their presentation of the theory. Those approaching accuracy are those of Hook(152), Sombart(306), and Weber(345).

CHAPTER XXIII

RÉSUMÉ OF THE ARGUMENT

We have come to the end of our presentation of social psychology from the standpoint of the theory of psychological and social fields. In this chapter we shall attempt to summarize our various conclusions in as concise a manner as possible. We cannot, for reasons of space, repeat any of the evidence on which the main arguments are based. To compensate partially for this shortcoming the various conclusions are given under the numerical indices under which they were established in the text.[1] Thus the reader may at any time satisfy himself as to the grounds for any of the arguments by looking back into the table of contents and referring to the appropriate heading. The reader who readily recalls the line of argument and evidence upon which each conclusion was based has mastered the subject matter of this book.

PART I. METHODOLOGICAL SECTION

This section deals at some length with the methodological background of the field theory in general and its application to social psychology in particular. In ways it is the most important section of the book because the whole subsequent argument derives from it. It deals with the chief differences between the field-theoretical mode of attack on social problems and the existing methods which are scientifically less accurate.

I (1) Social psychology is provisionally defined as the science which deals with man's psychological reactions to his fellow men taken individually and as groups. Typical problems and the discussion of the possibility of their solution show us the great importance of social psychology. (2) The present economic and cultural crisis is discussed. The crisis is not due to the failure of the physical sciences to fulfill their promises but rather to the failure of humanity to develop an adequate social science. All the various "cures" suggested for the crisis depend for their application on a more thorough knowledge of social psychology than we now possess. (3) We are, however, not even able to apply the existing knowledge to practical problems. Knowledge and application of sciences go hand in hand. All revolutions in scientific procedure depend on political, religious, and economic conditions. The probable reaction of both the church

[1] To save space references to the more complete chapter summaries are omitted.

and the state to any real advance in social science technique is touched on. (4) Social psychology may be defined as a natural ahistorical biological science which falls between sociology and psychology in this particular series. Its laws must be expressed in the language of constructs. It is so closely related to social anthropology, psychoanalysis, and economics that a treatment of it without drawing on them would be sterile. Consequently certain basic facts from these sciences are touched on.

II (1) Underlying the many theories and "isms" in the biological and social sciences, one may distinguish three series of basic postulates, the atomistic-mechanistic, the vitalistic, and the organismic. The vitalistic theory, using as it does unverifiable causal factors, is not worthy of scientific credence. The atomistic-mechanistic viewpoint varies from the organismic regarding the nature of the organism, the relationship between wholes and parts, the most applicable type of analysis, and the relationship of biology to physics. The organismic viewpoint is the most promising one on which to build a social psychology. (2) Modern researches have clarified the best procedure in ascertaining scientific truth to be the hypothetico-deductive method. The relationships between this method and those of induction and deduction are discussed. (3) The use of constructs in making sound scientific theories is justified. The statements of the language of data may be translated into the language of constructs and when so translated gain precision, the possibility of experimental verification, and considerable economy in expression. (4) The combination of organismic philosophy, hypothetico-deductive method and language of constructs forms the basis of what we call the field-theoretical approach to social science. It is this approach which we shall use in the following chapters.

III (1) The social field is a mathematical-spatial construct to which the data of the social sciences may be ordered. Its properties are topological and non-metricized dynamical rather than geometrical and dynamical. (2) The topological constructs are introduced and illustrated. (3) The non-metricized dynamical concepts are introduced and illustrated.

IV (1) One of the most debated problems of social psychology is the problem of the reality of the social group. The atomistic-mechanistic theories are unable to solve this problem and the vitalistic theories solve it in a spurious fashion. (2) The group-mind hypothesis is viewed historically and its methodological shortcomings pointed out. (3) The field theory is able to resolve this dilemma. (4) A brief summary of the methodological postulates of field theory is given.

V (1) These methodological considerations lead us to compare the scope of this treatise on social psychology with several standard works. Many problems which are usually handled in works on social psychology, but which are either insoluble or whose solution is self-evident, are omitted in order to save space for important problems usually disregarded. (2, 3, 4, 5, 6) The standard problems of social psychology are introduced, their attempted solutions criticized, and reference is made to the sections of this work which will deal with them. (7) The chief characteristics of contemporary social psychology are given.

PART II. SOCIOLOGICAL SECTION

In this section we are concerned with the effect of changes in the structure of the social field on the psychology of the individuals, without consideration of

their individuality. We treat the individual as a topological point-region and consequently our analyses may have only statistical rather than dynamical validity. Our chief interest is in what happens to the social psychology of the "average" man when the structure of the social field changes.

VI (1) The sociological section deals with the changes in field structure to which changes in the ordinary data of sociology may be ordered. (2, 3, 4, 5, 6, 7, 8) There are various ways in which individuals and groups may be ordered. These are discussed and criticized.

VII (1) The designations race, nation, state are clarified and their usage in this work precisely defined. (2) Most previous descriptions of national psychology have been class-theoretical. The behavior of nationals under a given field structure is abstracted and such behavior is said to belong to the "nature" of these nationals. Examples show this viewpoint to be erroneous. (3) A field-theoretical attack on the problem of the behavior of nations allows generalities only in terms of underlying genotypes. Statements regarding actual nations may be made only for precise momentary situations. (4) The changes in field structure when economic competition changes to war are given. From these changes the resultant war psychology may be deduced. (5) The changes in national social psychology in economic depression are likewise to be deduced from the field structure of the national field in depression. (6) The position of racial minorities within the national social field varies with field structure. The conditions are given. (7) The nature of the state is touched on but a more thorough consideration of it reserved until Part IV.

VIII (1) Religious behavior and religious organization are field-theoretically defined. The relationship between the church and religious behavior, and the state and economic-political behavior, is shown to be similar. (2) The church once controlled many locomotions now controlled by the state. (3) The role of the clergy is changing continually with changes in field structure. (4) The church members are to be ordered to dependent subregions of the national social field. This is clearly demonstrated by the behavior of Christians in a war situation. (5) The Catholic and Protestant churches are ordered to fields of different structure. The resultant variations in religious behavior may be deduced from such an analysis. (6) The effect of church membership-character on the social psychology of the individual is discussed. (7) The alleged social-psychological necessity for religious behavior is critically examined.

IX (1) Social classes are defined and described. (2) The role of the social class is discussed for various types of field structure. (3) The conditions under which the "class struggle" is diminished and enhanced are given. There is no inherent class struggle, rather it is created by certain definite field conditions. (4) The social dynamics of strikes, general strikes, and revolutions enable us to understand the conditions generating these phenomena and the conditions for their success or failure.

X (1) The individual has, besides membership-character in a nation, a religious organization, and a social class, membership-character in various minor groups. (2) These groups become important only when they mirror the particular changes of the larger field structures. (3) Some individuals who are chiefly affected by minor group structure may only be understood on the basis of principles introduced in Part III; *i.e.*, they cannot be treated as point-regions. (4) Conflicts

between minor groups, however, show in a milder form the same dynamic principles as those between nations and classes. (5) Membership-character within the topological mean leads to conflict when the social field tends to bipolarity. (6) All through this section of the work abstraction has been necessary and consequently the problem of the accuracy of such abstraction arises. This is a problem which all sciences have to meet.

XI (1) So far the work is concerned with ahistorical analyses. This chapter attempts to view the chief historical events of the last three hundred years from the standpoint of field theory. (2, 3, 4) The chief changes in church, state, school, family, and economic organization during this period are schematically outlined.

XII (1) The primary group exists as an entity only after much abstraction. The prevalent viewpoint that a primary group like the family may be looked on as a basic social unit is criticized. While it is true that the individual personality is chiefly formed in the family during infancy, the parents are largely determined in their social psychology through the structure of larger groups. (2) The structure of the family varies according to the historical situation and the class to which the family belongs. (3, 4, 5) This is most evident from a discussion of rural and urban families, bourgeois and proletarian families, the role of the family under different national conditions. (6) The family is the most important determinant of the child's personality, and since the child's personality largely determines that of the adult, we shall return to this problem in Part III. (7) The social dynamics of love affairs and friendships is taken up. (8) In the last resort even the individual for social-psychological analyses is to be ordered to a structured field. This brings us to the end of the sociological section of our work.

PART III. PSYCHOLOGICAL SECTION

In the psychological section we cease to treat the individual as a point-region in the social field and interest ourselves in personality. Our chief concern will be with the development of personality and how the social field affects a given individual rather than the "average" man. In other words, the method attempts dynamical causal analysis rather than statistical, although little success is possible with dynamical analysis because we lack manipulatory power. The apparent effect of individual behavior on the structure of the social field is discussed under the topic "Leadership." Our interest, however, remains chiefly in the effect of field structure on social psychology, now of the individual rather than of the group.

XIII (1) The popular definitions of personality as a quantitative concept are criticized. Personality is seen to be the pattern of personality traits, and personality traits to be the aspects in which individuals vary. Personality becomes a purely qualitative concept, which the psychologist must view without evaluation. (2) Personality has a genesis, *i.e.*, personality is constantly fluctuating. (3) Personality traits are distributed with regard to amount and frequency along the normal probability curve. This curve must arise when n different causal factors combine according to the laws of chance. (4) The shape of the curve of distribution of personality traits is fixed in nature but human manipulation may change both the range and the average for any given trait. (5) The

relationship between personalities and the traits of personality are discussed. (6) Personality in its *social-psychological* significance is chiefly a function of membership-character in various groups.

XIV (1) A brief résumé of the age-old search for the irreducible minimum of traits which belong to the nature of man is discussed. Representative viewpoints are seen to be based almost wholly on the method of class-theoretical abstraction. (2) Heredity and environment are meaningless concepts as usually defined. The only possible operational definition is to call hereditary those traits which cannot be manipulated, and environmental those which can. (3, 4) Certain traits of personality, such as physique, are little subject to manipulation, while others, such as attitude, are highly so. A provisional hierarchy of personality traits ranging from the chiefly "hereditary" to the chiefly "environmental" is given on this basis. (5) It is concluded that there is no such thing as human nature independent of the structure of the social field.

XV (1) The psychological behavior of the individual is ordered to the construct of the individual psychological field. (2) The individual psychological field is a three-dimensional manifold, the third dimension showing the degree of reality of psychological behavior. The personality varies in its person structure and in the differentiation of the reality dimension. The child behaves psychologically in a field of medium reality. (3) The blockage of tensions imposed on the individual by the family and society leads to the growth of personality. "Personality has its genesis in the way in which the individual meets blockages in the psychological field." (4) The structure of the person varies in degree of differentiation and communicability of the regions. The person varies also dynamically in its material properties and in the content of the psychical systems. (5) The frequency and distribution of barriers in the individual's psychological field cannot be adequately explained without reference to social field structure. (6) The development of the "normal" personality is brought about by the optimal distribution of barriers in the psychological field. Optimal for the individual implies optimal for society. The field theory is concerned directly neither with the "nature" of basic urges nor with the "nature" of barriers. Of the modern theories which define these S. Freud's is most worthy of more detailed discussion.

XVI (1) The Freudian theory designates the nature of the frustrated urges and the manner of their frustration for existing field structure. (2) The basic urges which society frustrates, according to Freud, are the erotic and the aggressive drives. Freud does not say all behavior is sexually motivated but he does say that the sexual and aggressive behavior is the most frequently frustrated. (3) The frustration of basic urges leads to the development of ego and superego out of id. This is the dynamical problem of Freudian psychology. The loci of these dynamic processes are the unconscious, the foreconscious, and the conscious. All psychological behavior including the development of neurosis, psychosis, and genius is economical in function. (4) The frustration of basic urges by society and the family under "normal" conditions leads to the highly differentiated adult personality. (5) The Freudian theory remains in many aspects class-theoretical. It is, however, probably the best explanation we have of the development of personality under the existing structure of the social field.

XVII (1) We may now discuss the effect of the individual on the structure of the social field. The old problem of history versus the leader is seen to lead to similar dilemmas as did the problems of heredity versus environment. The individual, on superficial analysis, changes the field structure. But the existing structure of the field determines the behavior of the individual. (2) From the standpoint of operational analysis, however, where we are unable to predict the individual's activity we may attribute to him "freedom" of the will. This freedom is limited by physiological, psychological, and sociological factors. As we understand these factors more thoroughly we shall probably be forced further to limit freedom. (3) The leader is to be ordered to a region of high potential in the social field. The power and freedom of leadership depend on field structure. (4) Certain laws of leadership were introduced. These concerned the relationship between leaders and membership-character, leaders and potential, leadership and field structure, potency of leadership and freedom. (5) No set of characteristics of the leader may be set up other than these. Much current research on these problems is criticized. These considerations lead us to the end of the psychological problems of social psychology. The next section concerns the effects of the political-economic system on field structure and hence on social psychology.

PART IV. POLITICAL SCIENCE SECTION

In this section no attempt is made at a presentation of political science as such, but rather a discussion of the effects of political organization, and to a less extent economic organization, on the structure of the social field. We discuss the field-theoretical description of the state in general and illustrate the adequacy of this description by illustrations of various types of state. We end the discussion by a criticism of existing social and political philosophies, which predict the outcome of the existing crisis. Hence we return to our point of departure.

XVIII (1) The terms state, government, administration are defined and distinguished. (2) The popular theory of the state as a cooperative commonwealth is considered and found inadequate. (3) From the standpoint of field theory the state consists of the whole paraphernalia through which certain regions of the social field impose barriers and boundaries on the other regions and to a lesser extent on themselves. (4) Most observers have agreed that throughout history there have been a ruling class and ruled classes. From this standpoint the state is the mechanism through which the ruling class exerts its rule. The ruling class itself, however, is limited in its freedom. (5) The various processes of state control are ordered to forces and barriers in the social field. (6) Laws represent barriers of varying permeability for different regions of the social field. (7) Control is partially through force and partially through persuasion. The limitations of both are discussed. (8) Distinct classes or coalitions of classes control the state.

XIX (1) There are innumerable types of state. Several existing types show enough dynamical differences, however, to allow useful classification. (2) Liberal democracy as a state form has its origin in the bourgeois revolution. The rise of the modern market, Protestantism, capitalism, parliamentarism, and national sovereignty hang together. (3) The liberal democracy is a nationalist, class, capitalist state, governed by parliamentary control. (4) Freedom may

only mean freedom to make locomotions toward goals. It is necessary to separate political, personal-social, intellectual-action, and religious freedom. The distribution of these freedoms to various regions of the national field under liberal democracy is described. The importance of economic freedom is stressed. (5) The bourgeois are important in controlling the liberal democratic state through their superior economic freedom. (6) When such control is threatened, fascism may arise.

XX (1) The dictatorship is the open rule of a class with a maximum of force and a minimum of persuasion. The dictator cannot be an individual tyrant outside the social field. (2) The fascist state arises when the social field tends toward decreased freedom of social locomotion for all regions and when the rule of the bourgeoisie is threatened by the proletariat. The various techniques used by the fascists are discussed. (3) The fascist state aims to perpetuate the existing structure of the social field through eternity by abolition of the political and social freedoms which threaten the existing economic freedoms. (4) The degrees of freedom of social locomotion are correlated with changes of field structure under fascism. (5) From the standpoint of the ideology of liberal democracy the trends of fascism are admittedly "backward" for all except the industrial bourgeoisie.

XXI (1) The similarities and differences between fascism and communism are stressed. Both represent the abolition of political and social freedom in the interests of economic freedom. The economic freedom, however, is in the interest of the proletariat under communism. (2) The communist state has its origin in the same objective situations which bring on fascism, but in this case the proletariat brings about a successful revolution. (3) The aims of the communist state are almost diametrically opposed to those of the fascist state. The communist aim is to establish a completely new economic order. (4) The degrees of freedom of social locomotion under the communist state show most clearly the differences between communism and fascism. (5) From the standpoint of the ideology of liberal democracy, the trends of communism are admittedly "forward" except for the industrial bourgeoisie.

XXII (1, 2, 3, 4, 5) The chief existing theories concerning the outcome of the present world crisis are subjected to a critique from the standpoint of field theory. (6) The problem of what constitutes social change, the rate of its flow, the ability of individuals to vary it is discussed from the standpoint of field theory.

The two appendices which follow contain more detailed discussion of certain methodological problems connected with field theory. The first gives in a more stringent fashion than was possible in the body of the text the mathematical background for psychological and sociological field theory. The second gives the topological and non-metricized dynamical variants in field structure similarly at a more advanced level.

APPENDIX A

THE MATHEMATICAL AND METHODOLOGICAL BACKGROUND OF PSYCHOLOGICAL FIELD THEORY[1]

Science consists of those postulates regarding experience to which the universal assent of competent observers may be obtained, plus the organization of such postulates into theories for which universal assent is likewise obtainable. Although perhaps complete universality of assent is never realized, and it is difficult to pass on the competency of all observers, it is still best to regard those statements and theories most scientific which approach this ideal. From such a standpoint the most scientific of our individual disciplines is undoubtedly physics; psychology is generally realized to be much less so. One of our tasks in the following paragraphs will be to see why this is true.

From this definition the Kantian aphorism that a discipline is as scientific as it contains mathematics is self-enlightening. According to Campbell (48), of all the propositions about nature those dealing with number are most readily given universal assent. For this reason mathematics may well be called the language of science. Mathematics is used in science both in making statements about observed phenomena (measurement) and in the building of theories. Neither of these processes is, however, as simple as many scientists have believed.

Psychologists have made wide use of mathematics in measurement, but have scarcely ever used mathematical concepts in theory building. It will be the purpose of this section of our work to point out the inadequacy of past attempts at measurement in psychology and to see if mathematical theory is not possible for at least certain psychological problems. To do this we must first show how in recent times mathematics has changed from the science whose chief purpose was measurement, to the science whose chief purpose is the construction of logically related systems of concepts.

1. Measurement and Arithmetical Applications

It seems best to reserve the title of measurement for those scientific processes whereby number is assigned to the qualities of nature, and where the arithmetic theorem of addition holds for the number involved.[2] Such processes have been called by Campbell fundamental measurement, and they have this great advantage over the mere assignation of number. The scales on which they are based

[1] Appendices A and B together cover the material of Chap. III at a more advanced level. The reader's pardon is asked for the unavoidable repetition necessitated by this procedure. The advanced student and professional psychologist might well read these appendices in lieu of Chap. III.

[2] *Cf.* Campbell(48). Campbell gives the mathematical proof that in fundamental measurement the units may be treated as numbers in arithmetic. *Cf.* also Nagel(255) and Brown(37).

may be constructed with an absolute zero point, and the equality of the units is assured. Such measurements are those of space, time, weight, and temperature on the absolute scale. Color, on the other hand, and hardness are not subject to fundamental measurement in this sense. In the common mineralogical hardness scales we have neither a set zero point nor the assurance that the points on the scale vary from one another by fixed amounts.

Science becomes systematized by relating the events of nature to fundamental measurement. The superiority of the absolute scale for thermometrics is obvious to everyone, and the great advantages of translating color into the fundamental units of wave length scarcely need mention. Where fundamental measurement is not possible, simple assignation of number to the qualities of nature has advantages, but such assignations ought not to be honored with the title of measurement. For psychology such a service is performed by rating scales, Intelligence Quotients, and the common psychophysical methods. In general, sciences start with such numerical assignations and through a very complicated process reduce these to measurements. The earliest thermometric scales do not represent measurement as we have defined it, although the absolute scale does. The scientific process whereby numerical assignation is transformed into mensuration will now be considered. From this discussion the inadequacy of existing attempts at psychometrics should become clear.

A. Attempts to Apply Physical Methods of Measurement to Psychology.[1]—The two most ambitious essays at exact measurement in contemporary psychology have been the Fechnerian psychometrics and the attempt to measure intelligence which originated with Binet. While both of these have decided value in their practical applications it is commonplace knowledge that neither has done anything toward helping psychology develop into a systematized science. We believe the reason for this to be that both were attempts to apply a physical methodology of measurement to psychology without a proper understanding of how derived measurement becomes possible in physics and how it is related to fundamental measurement.

The prevalent belief in the later nineteenth century was that the scientific process follows three separate and clearly defined steps. *First*, events of nature are measured; *second*, correlations are found between sets of these measurements and these correlations are called laws; *third*, laws are related under theories or hypotheses. Now in fairly advanced sciences where a certain number of fundamental measurements are already possible additional information may be obtained in this fashion. But psychology at the time of Fechner and Binet had no such fundamental measuring devices; in fact they are still lacking today. Fechner and Binet, however, both felt the need of measurement strongly, and they attempted to force it without any adequate fundamental scales.

Modern researches[2] into methodology have indicated that the nineteenth-century view of the steps in the scientific process as being simple induction—*i.e.*, (1) observation, (2) measurement, (3) finding laws and building theories—is

[1] This and the following section (B) contain the essential points made in the author's article "A Methodological Consideration of the Problem of Psychometrics,"(37) where many illustrations of this argument are given.

[2] *Cf.* Brown(37), and the references therein given to other papers; also Campbell(48) Reichenbach(279), and Nagel(255).

wrong. The process is much more complex than this. An examination of the most frequently used measurements in physics indicates that measurement ability may be said to be the resultant of law just as certainly as laws result from measurements. Every measuring device, except the determination of length by means of the measuring rod, depends for its construction on the knowledge of a law. Hence the clock is impossible without the law, $v = \frac{s}{t}$; determination of weight by means of a scale or balance depends on Archimedes' law of the lever; all standard photometric devices represent the application of the inverse square law; and all the most common electrometric devices represent the application of Ohm's law. The instrument might well be called a "law in action" and measurement, "the process whereby the experiment which originally uncovered the law is repeated with a new set of variables." That the instrument is not something without the experimental situation and independent of it, is perhaps most clearly shown from the recent difficulties of microphysics which led to the setting up of the Heisenberg relationship of indeterminacy.

Measurement, then, as actually practised in physics, instead of being the starting point of the scientific method occurs at a fairly *late* stage. Laws are necessary for exact measurement and can be defined as the *statements of functional relationship which may be used to reduce the quantitative aspects of nature to fundamental measurement.* Thus the lever law gives us the relationship between weight and distance which allows the fundamental measurement of weight in terms of distance, just as the clock constructed on the principle of the velocity law allows us to reduce time to spatial extents. What really happens in the scientific process is roughly the following: Uncontrolled observation gives the investigator some sort of "hunch" as to what the possible law relating two variables may be. He states this law in terms of a functional equation which becomes a working hypothesis. In the experimental situation, where the hypothesis is tested, the validity of the law is assured and a device is found which allows the reduction of qualities in nature to fundamental measurement.

The best modern thought on the scientific method leads us to conclude that: "(1) The view that measurement leads to laws through the discovery of correlations between sets of measurements on different entities is unsound. (2) Law and measurements are so closely related that any chronological separation of the order in which they are accomplished in the scientific process is impossible. It is, however, nearer the truth to say that law precedes measurement, than that measurement precedes law. (3) The instrument has been shown to be a physical system obeying certain laws. This means that the instrument is a 'law in action,' or rather that the process of measurement requires putting a law into action. The measurement process repeats the experiment by which the law was discovered. (4) It is increasingly likely that the theory comes before the law, in the form of what we called a 'hunch.' Theory is then the starting point rather than the end point in the scientific process. (5) If this viewpoint is true our ideas that any science is solely inductive must be abandoned. Science is the result of the contribution of the productive thinker perhaps even more than the experiments of the diligent researcher."—Brown (37).

Returning to psychometrics, we may say that the measurement attempts of modern psychology have been sterile because laws have not been found which

can be turned into instruments for reducing psychological variants to fundamental measurement.

B. Critique of the Same.—We have not yet answered the more basic question as to why psychologists have so far not had the "hunches" necessary to set up working hypotheses which might lead to laws. The literature abounds in excuses for the psychologist's lack of precision, and apologies for his scientific shortcomings. That psychology is a young science is certainly true, but modern physics is not really so much older, and the present intensive activity of psychologists should make up for its comparative youthfulness. There is small doubt that more individuals have concerned themselves with the intricacies of psychometrics and that more "experiments" have been performed with psychometrics as a basis than there were individuals and experiments concerned with the classical mechanics from Galileo to Laplace. That psychological activities are complex is also to be granted, but here again there is no a priori reason for believing them to be any more so than the phenomena of physics. That psychological problems are always of a genetic nature may also be granted, but so to a certain extent are all problems of natural science. None of these stock arguments are finally of methodological validity.

The real reason seems to me to lie in the lack of an adequate mathematical methodology with which to phrase psychological theories. If our viewpoint concerning scientific methodology in general is sound, laws precede experimentation and measurement. Mathematics are as important for theories as they are for measurement. Psychology, like any science, will advance rapidly as theory and experiment become integrated. The chief difficulty with the past attempts at psychometrics was that such theories as were used for psychometrical devices were without a mathematical foundation consistent with psychological reality.

The chief discovery of modern psychological research has been that of the importance of Gestalten through the whole field of psychological behavior. The importance of the whole-part relationship first stressed by Wertheimer for a definite problem of perception has gradually been admitted for learning, for emotion, for social and abnormal psychology. Probably, as we shall see, physical fields also show supersummative properties. But the physicist has a great advantage over the psychologist in that he can isolate and control many variables in experiment, and hence build approximately accurate theories in terms of part-to-part causality. The psychologist's manipulatory powers are much more limited than those of the physicist. What he most needs at the present time is a mathematical methodology which will enable him to phrase theories precisely in terms of the whole-part relationship. Such a methodology might eventually lead us to fundamental measurement in psychology. In the rest of this monograph we shall develop mathematical concepts which may be capable of doing just this. Before coming to them, however, we must spend some time on the historical developments in mathematics which have made such concepts possible.

C. Dynamical versus Statistical Causality.—In all modern discussions of methodology the problem of determinism and indeterminism, statistical and dynamical causal analysis has been stressed. Before attempting to develop the mathematics underlying the field theory in psychology a few words about this discussion are necessary. In the first place, I believe that a great deal of confusion has developed because of the indiscriminate mixture of sound methodo-

logical concepts (statistical and dynamical causal analyses) with rather meaningless metaphysical ones (determinism and indeterminism). By a statistical causal analysis is meant an analysis which expresses predictions only in terms of probability quotients; by a dynamical causal analysis, one which expresses predictions in terms of exact amounts. Determinism can only mean that the events of the world are such that they could be exactly predicted by a superior being outside the world, who was cognizant of its whole structure. Indeterminism would mean that such an individual would not be able to make exact predictions. The whole argument as to whether the events of nature are determined or indeterminate seems to me to be a metaphysical one. I believe that in so far as we must accept a certain metaphysical bias we should believe *metaphysically* in determinism.

The problem as to whether scientific analyses may be dynamical or statistical, however, is of real importance to us. Several reputable physicists and biologists have recently interpreted the Heisenberg indeterminacy relationship as indicating that biological science must content itself with statistical causal analyses.[1] On these grounds some psychologists have questioned the fruitfulness of any attempt whatsoever at strict dynamical causality analysis in psychology. Their argument runs: "Since physics itself allows strictly speaking only statistical analyses, that is all we can hope for in psychology. Consequently our best bet is to stick to straight empirical analyses and further refine our statistical procedures." This argument is, I believe, basically unsound because the type of scientific method which is most valid becomes confused with the probability of predictions from this method.

In modern physics the *hypothetico-deductive method*[2] is used to the exclusion of all others despite the fact that the analyses of quantum mechanics are probability analyses. The psychologists, who have never developed a hypothetico-deductive method, argue that one should not be developed because psychological analyses may be only statistical. It may well be, in fact I think it very likely, that at best psychological analyses may be only statistical. But the probability of these analyses will be greatly increased by the use of a mathematical methodology. Furthermore we must not forget that psychology is in general still a pre-Galilean science (*cf.* Lewin, 202). A strict dynamical causality analysis may still be quite possible for many of its macroproblems. The development of quantum mechanics then is no reason for the adoption of an attitude of defeatism in psychology. If all who have discussed this problem had kept clearly in mind that the debate over statistical and dynamical causation is a methodological rather than a metaphysical one and that the hypothetico-deductive approach, plus an adequate mathematics, is still the most valid, independent of whether the analyses are dynamical-causal or statistical, much confusion would have been avoided.

2. Geometric Applications

Arithmetical and algebraic conceptions find their chief application in science in fundamental measurement. For the building of theories which may lead to

[1] *Cf.* Bohr(25), von Bertalanffy(21); also the debate in *Erkenntnis* between Jensen(161) and Jordan(162).

[2] The hypothetico-deductive method is that outlined above where theory precedes experiment.

derived measurement, geometry is of the greater importance. In this light the extravagant pronouncement of Sir James Jeans, which has been so widely quoted, about God being a great geometer, acquires something of meaning. Geometry in modern times has become the chief mathematical tool for the construction of scientific theory. Let us see how this came about.

A. The Nature of Space.—The viewpoint of the ancient geometers, which found its richest expression in Euclid, was that space was the void in which the world existed. That there are types of space, that space is conceptual, that there are differences between phenomenal space, physical space, and mathematical space, are all very modern views. Even at the time of Galileo scientists did not distinguish between "spaces" and modern physics got its start firmly believing that perceived space and physical space were both Euclidean. The first modern discovery of importance about space was that perceived space (tactual and visual) varied decidedly from its physical correlate, although both of these were considered to follow the Euclidean postulates. Only in the nineteenth century was space first mathematically defined. Today the types of space are realized to be innumerable and Euclidean space is not even "the queen" of them any longer. Space, which the ancients considered roughly as "what the world existed in," may be defined as *a manifold in which positional relationships may be expressed.* In general the manifold may be continuous or discrete and position may be defined in terms of distance and direction, although for many types of space position may be defined only relationally. The science which deals with such manifolds and the positional relationships within them is geometry.[1] We shall return to the modern definition of space after a brief consideration of the mathematical discoveries which necessitated it. The greatest names in the development of modern geometry are those of Euclid, Descartes, Lobachevsky, Riemann, and Poincaré. Let us review very briefly what each accomplished.

Euclid established geometry as the deductive science of the relationships between constructions in space. Euclid accepted space without question and gave it only a nominal definition. If one follows the "rules" he laid down for constructing parallels, for bisecting angles, and the like, one finds that normal perceptual experience and the measurements which are made by means of the measuring rod turn out exactly as they should from Euclid's deductions. Euclidean geometry has, however, three great shortcomings. The first is that space itself remains without adequate definition. The second is that the parallel axiom, which is self-enlightening for normal visual experience, has not been proved.[2] If accepted as holding for every place in space, space becomes unbounded and unlimited. This was very difficult for later mathematicians and physicists to accept. The third is that Euclid devised no way in which to give algebraic value to the points in space. But despite these limitations Euclid gave the world its first great consistent system of logical constructs about space.

The third of the difficulties pointed out above in Euclid was the first to be overcome. As is well known, in his *Analytical Geometry* (1637) Descartes

[1] Although geometry literally means the science which measures the earth, the definition that will be given later of topology as the non-metrical branch of geometry is not incorrect, for the latter is not necessarily concerned with metrics despite its derivation.

[2] The axiom concerned with the impossibility of constructing more than one line parallel to a given line through a point without the given line.

performed "the marriage of Algebra to Geometry." The basis was hence laid for the future development of the mathematical theory of physics. This, however, we shall follow no further, because it is the development of "pure" geometry which will be most important for us as psychologists.

The difficulties of the parallel axiom were not clearly attacked until the early nineteenth century, when Gauss, Lobachevsky, and Bolyai[1] decided to see how Euclidean geometry would look if the parallel axiom were replaced by one which allowed two lines through a point parallel to a given line. They found that a whole new geometry (the so-called Lobachevskian non-Euclidean geometry) was possible, which was logically just as valid as the Euclidean. Although at first mathematicians were inclined to see little "practical" importance to this, and treated this new branch of mathematics as a curiosity, geometry could no longer be conceived as concerned only with Euclidean space. It became rather the science of *possible* logical constructs about space.[2] But space itself remained without adequate definition until Riemann's (282) great lecture, "Über die Hypothesen, welche der Geometrie zu Grunde liegen," delivered in 1854. The developments made by Riemann may be of vast importance to psychology, and we shall treat them with a little more detail.

B. Riemannian Space and Its Importance for Psychology.—Riemann clearly sensed the need for a mathematical definition of space. To define it he developed the mathematics of the n-dimensional manifold and showed that physical space values may be differentiated out of the n-dimensional manifold in the process of mensuration. Not only may Euclidean geometry be developed out of the n-dimensional manifold (Riemannian space), but also all other types of conceptual geometries. The Riemannian space concept gives an adequate basis for the definition of space in general, and through definition of dimensions and curvature, the properties of any particular space may be obtained.

A *manifold* is an extended magnitude which may be either *discrete* or *continuous*. Discrete manifolds are those described by the process of counting, such as the number series, or objects distributed in space. Continuous manifolds are those which are described adequately only by the process of mensuration, like space itself. A one-dimensional manifold is characterized by the fact that one can move continuously in it in either a forward or a backward direction. A one-dimensional manifold generates a two-dimensional by allowing every point in the first to pass over to a definite point in the second manifold. This process may be continued until an n-dimensional manifold is generated. Conversely Riemann shows that the n-dimensional manifold may be differentiated into a one-dimensional and an $(n - 1)$-dimensional manifold, and this process continued at will. In the second section of his paper, where the mensuration processes possible in an n-dimensional manifold are discussed, the possibility of considering the various spaces as differentiated out of n-dimensional space is developed. In a final section Riemann first suggested that *the properties of*

[1] The geometry developed is usually called Lobachevskian because, of the three independent discoverers, Lobachevsky did the most thorough job; *cf.* Lobachevsky (214).

[2] Today many types of non-Euclidean geometry are possible. The best known besides the Lobachevskian is the Riemannian, which instead of allowing two parallels through a point to a line allows none. Riemannian non-Euclidean geometry, however, must *not* be confused with Riemannian n-dimensional space, of which we shall speak next.

physical space might be dependent on the dynamics of the physical processes in the space, that the metric field is in principle of the same nature as the electromagnetic or gravitational field. Although the importance of this idea was not understood until the Einsteinian relativity theory, it was Riemann who first suggested it.

The following conclusions may be drawn from Riemann's paper which will be of importance to us in developing the concept of psychological space.

1. *Space is a manifold in which positional relationships may be expressed. Any dimensions and properties may be assigned, provided these are logically consistent. Space is generalized so that many individual spaces are possible.* In this we see that we have available as many dimensions as we shall need to express the variants in psychological phenomena, should we later be able to make fundamental measurements. We shall see that the personality may be ordered to a space of as many dimensions as we find necessary.

2. *The properties of space are not independent of the field dynamics of processes within the space.* Our psychological space concept may hence be constructed on the basis of our knowledge of psychodynamics. Riemannian space is, however, space where fundamental measurement is possible.[1] We have already seen that this is not yet possible in psychology, and hence we must consider a space that is even more generalized than Riemann's.

C. Topology.—Topology (analysis situs) is defined by von Kerékjártó(170) as "that part of geometry, which investigates the properties of figures which remain unchanged under continuous transformation. These are the relationships of connection and position, properties of a qualitative nature." The transformations admitted in topology are arbitrary point-to-point transformations. Topology investigates the non-metrical aspects of space, particularly the possible connections between different spatial regions. It should be quite obvious that there is relationship here to such modern psychological conceptions as Gestalt, configuration, belongingness, and membership-character. For psychological purposes one might define topology as the science which investigates the "belongingness" of spatial regions, and their connectivity with other regions. In appendix B we shall develop the topological concepts applicable to psychology; here we merely wish to show how topology is related to the other types of geometry and to indicate the methodological reasons for believing topological analyses applicable to psychological problems.

Like the theory of probability, topology grew up as a mathematical stepchild. Just as Galileo and Laplace amused themselves with the formulation of probability postulates but considered them of little real importance for science, so Leibnitz and Euler played with the ideas of topology. Riemann's investigations on the connectivity of surfaces, however, showed the importance of topology for the theory of functions, and since that time topology has been granted a place as a reputable mathematical science.

Poincaré(274) in 1895 first attempted a mathematical foundation for general topology and since then a great many of the ablest geometricians have concerned themselves with its problems.[2] Today there is a great body of proven topological

[1] Riemann laid the foundations for topology in Sec. I of his work, but did not emphasize its importance.

[2] For the history and general references *cf.* von Kerékjártó(170). For the American psychologist who wishes to orientate himself in this science it is difficult to recommend gen-

theorems and topology is applied in physical and psychological problems.[1] Furthermore topology has been given a firm mathematical foundation in the theory of abstract sets. The introduction of the theory of abstract sets has been characterized by Fraenkel(109) as creating "a scientific revolution in mathematics, of not less importance than the Copernican system in astronomy, than the Einsteinian relativity theory in physics."

Topology becomes a metricized geometry when direction and magnitude of topological concepts are defined. A circle, an ellipse, and any polygon are topologically equal. So are a cube, a sphere, and any closed three-dimensional figure. Topology investigates those spatial properties which are independent of metrics. For instance, any closed curve lying in a plane (the topological Jordan curve) has many such properties which have been handled mathematically by topologists. It can be proved that the Jordan curve divides a surface into two regions, of which the curve is the common boundary, that the Jordan curve defines at the most one limited region, that it is impossible to move from the inner limited region to the outer region without crossing the curve.[2] At the present time hundreds of such demonstrations are possible.

Topology is in many ways to be looked on as the basic science of space. With topology geometry becomes truly the science of positional relationships. Since relational thinking tends to structure itself in terms of spatial relationships, topology gives us the mathematics necessary to set up theories about psychological and sociological problems, where fundamental measurement is impossible at the present time. Such problems as the structure of the personality, the membership-character of the individuals in groups, social distance, psychological space, will, as we shall see, be subject to topological treatment.

We have sketched roughly the development of geometry from Euclid to Poincaré. Geometrical analyses, however, are only the beginnings, the statics, of science, which can help us little without knowledge of change, so we shall next discuss dynamical applications of mathematics.

3. Dynamical Applications

The greatest triumph of modern physics is the development of dynamics. Mach(222) has pointed out that the Greeks accomplished little besides statics, and that it was not until the seventeenth century that a real dynamical physics developed. Dynamical theory makes use of both the arithmetical and the geometrical applications of mathematics. Dynamics may be defined as the science of systems undergoing change. The idea of force is implicit in dynamics. Opposed to dynamics is statics, which investigates systems in equilibrium. It

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eral texts. Topology has several branches, of which the most important for psychology is surface topology. For an orientation in this, the best text found by the author is von Kerékjártó. The only English text found by him is that of Sierpinski(301). A brief introduction is given in the paper of Franklin(110). The theory of point-sets is presented by Fraenkel(109), who gives adequate references to the works of others. The forthcoming work of Lewin(207) includes a brief topological introduction.

[1] For physical applications *cf.* Reichenbach(279), for psychological, Lewin(207, 206), and Brown(39).

[2] Any readers who are so mathematically naïve as to consider such propositions unnecessary of proof are reminded of the history of the parallel axiom, which seemed equally self-evident.

is obvious that all psychological behavior involves problems of dynamics. Psychologically speaking, an organism ceases to be dynamic only at death. The greatest advantage of modern physics methodologically is that the dynamic processes of mechanics, heat, light, and electromagnetism may all be expressed in functional equations, where fundamental measurement has defined the constants so that causality predictions are possible.[1] One arrives at these functional equations by approaching nature by the hypothetico-deductive method in which a constructed mathematical theory is brought to the test of the *experimentum crucis*.

Since at the present time fundamental measurement is impossible in psychology, the question arises as to what the meaning of psychodynamics may be, and whether we are justified in speaking of psychological processes of a dynamic nature. It is this question which will now engage us.

A. Non-metricized Dynamical Concepts.—Psychologists are sometimes inclined to be overawed by the precision and elegance of physical analyses. They are inclined to forget the psychological primacy in epistemology, which puts psychology and physics on an equal basis, since in the last analysis physics is just as much based on pure experience as is psychology. It is easy to become convinced of the "reality" of gravity or magnetism, because of the exactitude with which physicists are able to predict their effects. No one questions the legitimacy of attributing the fall of the stone to gravity, or the alignment of the iron filings in the magnetic field to magnetism. But to attribute the behavior of a rat in a maze, or the behavior of a mathematician solving a problem, to psychological vectors causes a certain amount of unjustified but understandable apprehension. One is at first inclined to demand that the vector be shown him, laid on the table, so to speak. But a little careful thought convinces one that psychological vectors are just as valid as the concepts of vectors in the magnetic and gravitational fields, except that they are not subject to fundamental measurement. The dynamical concepts of both physics and psychology represent *constructs to which raw experience may be ordered*. The scientist observes the rat as he observes the stone and in both cases postulates a dynamic force to enable him to further investigate the behavior. Dynamical concepts are on exactly the same epistemological level in psychology as they are in physics. The physicist, however, is able to metricize his forces, *i.e.*, he is able to assign a fundamental measurement to them, while the psychologist must for the present deal with his forces non-metrically, and express his results only in index numbers. *The dynamical concepts of psychology have the same relationship to those of physics as topological concepts have to the metrical concepts of geometry*. Both are non-metricized.

In Appendix B we shall define the non-metricized dynamical concepts of psychology. Let us here characterize them briefly. Psychological behavior, like physical behavior, occurs in space. We postulate to begin with the existence of a psychological field, which we shall define precisely later. To account for any behavior we must further postulate a dynamic force. In dynamical systems in general, change occurs only when there is a difference in potential between two points. Movement occurs when the dynamical situation is such

[1] In certain microphysical problems only statistical predictions are possible; *cf.* 1C above.

that this potential difference can be lessened. Whenever individuals behave we must postulate the existence of a vector in the psychological field.[1] Behavior, however, depends on other factors than vectors alone. The rat in the maze is not free to go wherever his "desires" take him, nor is the individual solving a problem able to do so through his "wishes" alone. We shall hence speak of the fluidity of fields and the permeability of boundaries within them. Vectors, fluidity, permeability, and the like represent dynamic concepts like those of physics. Through experiment or statistical study we may assign index figures to them and so use them for scientific preditions. Furthermore, as we shall see, they are capable of operational definition and hence become real research tools and not merely façons de parler.

B. The Debate over the Supersummative Aspects of Dynamical Systems.—The amount of evidence which has accumulated in the last twenty years to support the claim that psychological phenomena show the properties of supersummative wholes or Gestalten is imposing indeed. At first this realization of supersummative psychological wholes gave considerable support to vitalism. For physical systems, it seemed, could be treated quite adequately in terms of an atomistic mechanism. Koehler(172), however, sensing the methodological drawbacks of vitalism as a theory, has performed a very valuable service to biological science by attempting to demonstrate the existence of supersummative wholes in the inorganic world.[2] The final acceptance of Koehler's theory would mean that psychology can be looked on as a natural science, really as a branch of physics. Not only would psycho-dynamics utilize the same type of methodology as physical dynamics, but the conceptual foundations of both sciences would be the same.

Koehler's argument has caused considerable dissension among methodologists in both physics and biology. This debate on the supersummative aspects of dynamical systems is by no means concluded, and only the names of the chief contestants may be given here. Mueller(244) and Buehler(45) have not been convinced of the validity of the argument, whereas Becher(17), Meyer(242), and Schlick(293) find Koehler's reasoning quite valid.[3] There are very good reasons for believing that physical systems do show supersummative properties in a "metaphysical" sense, but through their precise methods of experimentation physicists are able to handle many of their problems with an atomistic-mechanistic methodology, particularly where these problems are not investigated from the standpoint of systems. Whether it has any meaning to say that wholes actually determine the activities of their parts, when such a supposition is not needed for physical research, is questionable in terms of an operational logic. The field concept, however, which is the cornerstone of modern physical theory, has implicit in it the idea of an organized whole.

C. The Field Concept.—Undoubtedly the dynamical conception of modern physics which is of most importance is the idea of physical fields. The field

[1] Psychological-field vectors are in the field and not to be confused with the visceral tensions of the behaviorist.

[2] That the Gestalt theory is no longer limited to psychological problems but is applicable to all the biological sciences and certain physial problems may be seen in the work of Scheerer(292), Petermann(267), von Bertalanffy(21), and Woodger(366).

[3] *Cf.* the discussion of this debate in Petermann(267).

is a construct which decidedly shows supersummative properties. In the modern theory of the gravitational field, bodies fall in a direction and at a rate which is determined in final analysis by the spatial-temporal distribution of bodies in the cosmos. The important thing is the pattern or arrangement or Gestalt of these bodies, not the individual bodies themselves. The forces directing the fall, furthermore, show the properties of a vector. The strength and direction of these vectors are determined by the distribution of the objects in space and not within the object, so that one may say there is no local determination. This is precisely what Wertheimer meant by his original Gestalt thesis. The parts cannot be separately considered as activating forces but what happens at any individual point within the field is a function of the whole field structure.

Recently I pointed out that it is possible to differentiate between "class" theories and "field" theories(38). The central idea of a class theory is that membership in a certain class determines the behavior of an object. The central idea in a field theory is that the behavior of an object within a field is determined by field structure. All dynamical theory tends to be field theory. The whole trend of modern science is away from theories which consider the behavior of objects determined by the class to which they belong, to theories which consider the behavior of objects to be determined by the field structure. Physics began to make this transition at the time of Galileo. Psychology is making it today. Arithmetic, geometry, and dynamics are the mathematical cornerstones of modern scientific theory. We shall next consider the method through which they actually function in creating scientific knowledge.

4. The Constructive Method as the Method of Science

The first realization by scientists that psychological events could be adequately treated only as Gestalten seemed to give support to the neovitalism of Driesch and others. Koehler's demonstration of the Gestalt properties of certain physical systems and the methodological analysis of the construct of physical fields, however, allow psychology to continue to look on herself as a natural science. A denial of mechanism, as Koehler has shown, does not necessarily mean the affirmation of vitalism. We may still demand that psychology use only a scientifically proven methodology.

In demanding that a scientific psychology use the methods of physics, we retain the methodological advantages of nineteenth-century mechanism without committing ourselves to a type of theory which has been outgrown in physics itself. We gain the same freedom in construction of theory which physics has always enjoyed, but in return, rigor of thinking and preciseness of definition are demanded from us; our theories, moreover, must be capable of being verified or falsified in the type of experiment which has given physics its position as the experimental science par excellence. The field theory is such a theory, in that its concepts are so chosen as to permit of operational definition, and its hypotheses are verifiable or falsifiable in experiment. Mechanism limited biologists to theories which attempted to be mechanical, but were really "machine" theories.[1] A scientific psychology should entertain any theory which is subject to proof.

[1] *Cf.* Koehler(172).

It will not, however, entertain hypotheses which are vitalistic, mentalistic, spiritualistic, etc. The hypothetico-deductive method or the method of constructs follows just such a procedure. This method has been recently advocated by the American behaviorists and the Viennese neopositivists as well as the Gestalt psychologists. I believe the methodological limitations imposed on psychology by the behaviorists and positivists to be unnecessarily stringent, however, as the following lines attempt to show.

A. The Neopositivists' Physicalism.—Carnap[1] and his followers approach the problem of scientific method from the standpoint of philosophy of science. Philosophy, they say, should cease to concern itself with metaphysical problems, which are meaningless problems in that no satisfactory answer may be given to them, and turn to the logic of science, *i.e.*, the logical analysis of the concepts, propositions, proofs, and theorems of the individual sciences.

Such analysis has led this school to believe that all science starts with descriptions of experience in the language of data (*Protokolsprache*). We start with such descriptions as "I see red," "The body falls with acceleration," "The child is trying to get the candy." This type of statement is common to all the sciences and epistemologically (the positivists, however, dislike the term epistemology and would probably say "scientifically logically") those which are concerned with psychological events are just as valid as those concerned with physical events. When the scientist is in possession of a certain number of statements in the language of data, he translates these into the language of constructs (*Physicalischesprache*).

The language of physical constructs represents physical theory. The general method of arriving at constructs is now widely known as the hypothetico-deductive method. From the statements in the language of data, a theory is invented from which certain necessary consequences may be derived, and the theory is tested by gaining further data. Now of all theories those of physics are the most scientific, because they are the most productive of universal assent. Let us examine physical theory and see why it is capable of gaining universal assent.

We find first that the concepts of physical theory may be operationally defined,[2] *i.e.*, defined through the operations (measurement and experimental processes) performed in setting up the concepts. The best modern procedure in physics is to use only concepts which may be so defined. Concepts which are not subject to possible operational definition are meaningless; such are absolute time and space, determinism in problems of atomic structure, and the like. Differences which cannot be experientially shown are not to be looked on as differences at all. This ability to make operational definitions leads to the second property of physical theories.

[1] *Cf.* Carnap(52, 53, 54). The movement owes much to Wittgenstein(365). For the psychological theories see Carnap(53), for sociology Neurath(257). A good first orientation to neopositivism or Vienna physicalism may be obtained from Feigl(105). Here I shall only consider that part of the physicalistic argument which is concerned with problems of methodology common to physics and Gestalt psychology. All reference to Carnap's important distinction between *inhaltliche* (connotative, contential) and *formale* (formal) methods of expression is omitted, both because of lack of space and because I am not satisfied that I thoroughly understand this distinction.

[2] The idea of operational definition is most clearly developed in Bridgman(29), although it perhaps first originated with C. S. Peirce(266).

The propositions in the language of constructs are intersubjective. Physical statements like "the wave length of red light is greater than that of violet" or "water boils at sea level at 100°C." are intersubjective statements. Anyone who seriously denied them would be ready for the psychopathic ward. The concepts used in making them are *operationally definable* and experiments may readily be set up which convince competent observers of their correctness. On the other hand statements like "I feel worse than you do" or "my perception of a particular red patch is aesthetically superior to yours" may be argued *ad infinitum*.[1] The reason why statements in the language of data become intersubjective in the language of constructs is that they become subject to experiments where fundamental measurement plays a role.

In the third place, many of the statements in the language of constructs may be intrasensual and hence given an operational definition independent of any given sense modality. Thus a certain patch of red light may be measured as to wave length, may be transformed into tone through an audiospectroscope, or presumably into the vibratory sense through a tactuospectroscope. Consequently the blind or the deaf even could join in the universal assent.

Finally, the propositions of physical theory are operationally verifiable under conditions where they might also be falsifiable. That is to say, the theory must be expressed in such a way that an adequate critical experiment may be found to decide it. The physical law of least action is such a theory. Statements about entelechies and superegos are not.

The concepts which we shall use in building a psychological theory *must be operationally definable, intersubjective, and lead to theories which may be subjected to critical experiments*. This much of the argument of the neopositivists is sound and should, I believe, be applicable to a scientific psychology. The following is methodologically more debatable.

Since the physical language has the decided advantages outlined, investigators in the other sciences should strive to translate their data into the physical language. How far is this possible at the present time? Carnap(53) has shown the possibility of stating many of the conventional psychological problems in the language of physics and Neurath(257) has done the same thing for sociology. But really to *advance* along the lines suggested by these writers we would need to have a very much greater knowledge of the biophysics and biochemistry of the central nervous system than we now possess. One reads these papers with the feeling that the scientific "idealism" of the writers is good and that maybe future generations of psychologists and sociologists will solve problems as they suggest. But for the present the problems seem only conceptually capable of solution on such a level. Experimentally the *Fragestellungen* of this type of physicalism are sterile. American behaviorism of the sort advocated by Watson(343) and Weiss(346) has much in common with the Vienna positivistic psychology. The Vienna program is based on a sounder philosophy of science and on a less naïve epistemology, to be sure, but at the present state of our psychological analysis and our lack of adequate physiological analyses, extreme physicalism remains only programmatically of importance.

[1] This does not mean that such statements could never be given operational meaning, but simply that we cannot now do so.

B. The Method of Gestalt Theory.—The Gestalt theory agrees with the Vienna positivists in the necessity for intersubjective postulates and the operational verifiability of its theories. It does not demand, however, that the data statements be immediately translatable into physical language, but rather that they be translated into a language of constructs, which constructs may have no immediate physical correlate. Such are those of the psychological field, psychological tensions, psychological boundaries and barriers, in brief the topological and non-metrical dynamical concepts which we shall develop in detail in Appendix B. Statements about experience (language of data) are ordered to theoretical constructs (language of constructs), *without* insisting that these concepts be given physical meaning.[1] It is still insisted that the concepts be operationally defined and subject to experimental verification. Whether or not the concepts so developed by Lewin can be translated into physical concepts is left an open question (Lewin,201). It is highly probable that we shall need concepts in psychology and sociology which are not needed in physics. But these concepts *must* be as precisely defined as physical concepts, and must be subjected to the same type of critical experiment.

I believe that the dynamic methodology of the Gestalt theorists is methodologically sounder than that of the Vienna circle for the following reasons. The constructs used by the Gestalt theorists are in no way epistemologically different from those of physics. Consequently they are by no means less "scientific"[2] in any meaningful sense of the word. The history of physics itself shows us the slow development of a science. Psychology is only now making the transition from the Aristotelian to the Galilean level. Young science must be more speculative than older sciences, providing of course that the only speculations which are entertained are subject to experimental proof. Since recent developments in physical theory show that the whole-part problem may be of great importance to physics (*cf.* Planck,273, and Schroedinger,295), it seems likely that both physics and psychology may be amenable to a more basic discipline, such as the logic of dynamics. Finally, the attack by the Gestalt psychologists has been a very fruitful one, while that of the strict physical behaviorist has been most sterile.

In this connection we must devote a few words to Wheeler's organismic psychology, which has a great deal in common with both the positivistic psychology and the more conservative Gestalt theory of Koehler and Lewin. I believe the only basic difference between Wheeler's position and that of the Gestalt theory is that Wheeler would allow speculation an even freer hand.

Some of the well-known organismic laws(353) (those of least action and maximum work) may not be looked on as methodologically completely adequate as they contain concepts which are not as yet operationally definable. Other of the laws (individuation, derived properties, field genesis) for instance, are quite adequate postulates of a non-metrical character and are based on experimental evidence. In a young science speculation is undoubtedly of great value and it is quite possible that in the very near future even the laws of least action and maximum work may be given experimental verification.

[1] It may be that the physicalists would agree with the validity of the field-theoretical approach and simply have not thought of the possibility of the psychological field concept.

[2] They may, of course, only be topological and non-metricized.

C. The Constructive Method.—From the above it should be obvious that we consider the best scientific method the hypothetico-deductive or the constructive method. The constructive method may be defined as the method through which all statements in the language of data are translated into the language of constructs. Similarly Lewin speaks of ordering phenotypical descriptions to genotypical descriptions. Experimental situations may be found in which the validity of the constructs may be tested. Since the constructs must be operationally defined, they will have the general advantage of physicalism. Scientific laws are statements in the language of constructs or genotypical descriptions, and such statements have a very great advantage in that many sets of data or phenotypical descriptions may be explained by one of them. The fall of the apple, the pendulum, and the rotation of the moon around the earth, while differently described in the language of data, are all to be ordered to a definite single construct, that of the gravitational field. It will be seen that the most various forms of psychological behavior are to be ordered to the construct of the psychological field.

D. Field Theory and Dialectical Materialism.—The past few years have witnessed the belated appearance of an interest on the part of academic scientists in the scientific method known as dialectical materialism. Indicative of this interest has been the publication of Engels'(98) notes on the dialectical method under the title of *Dialektik der Natur*, a very favorable review of this work by Struik(323) in *Philosophy of Science*, an article by A. Emery(94) in the same journal, and the inclusion of an article on dialectical materialistic psychology in Murchison's well-known *Psychologies of* 1930(248). Undoubtedly one of the chief reasons for the growth of this interest has been the fact that dialectical materialism is the "official" scientific methodology of the U.S.S.R., whose remarkable economic achievements are being duplicated in the fields of scientific research. The reasons for the long neglect by most academic scientists of this method have been many. In the first place, it was created by three professional revolutionaries, Marx, Engels, and Lenin, whose very names have been anathema to the respectable bourgeois scientist until very recently. Secondly, their writings upon dialectical materialism as a scientific method were usually of a highly polemical and politically interested nature and the bourgeois scientists have always insisted that their interest was in "pure" science, *i.e.*, in a science uninfluenced by the affairs of the practical world. Thirdly, dialectical materialism is claimed by its creators to include the key to the understanding of logical processes and world history as well as the rules for procedure in scientific methodology itself. Such broad theories of an all-inclusive nature have usually been very unscientific in the past. Fourthly, Marx was a student of Hegel and took over Hegel's metaphysical nomenclature. This nomenclature has not hastened the understanding of dialectical materialism as nineteenth-century German idealistic philosophy has been quite rightly neglected by modern men of science.[1] For all these reasons the methodological writings of the dialectical materialists have been avoided by modern scientists. This is very unfortunate because these writings, particularly those of Engels, are works on critical philosophy and

[1] Bukharin(47) points out that the dialectical materialism can be quite adequately expressed in the language of mechanics. It is unfortunate in ways that this is not done.

methodology of the very first importance, and are rich in methodological insights which are generally accepted by modern methodologists, without the realization that they were originally advanced by Marx and Engels and Lenin.

The following lines attempt to point out some of the methodological principles held in common with dialectical materialism by field theory. They make no attempt to present dialectical materialism as a system and they take for granted a certain knowledge of its postulates on the part of the reader. Furthermore, they will be concerned with dialectical materialism as scientific *method* only, and not as a philosophy of history, a system of logic, or a set of máxims for political activity.[1] Unfortunately there is not available any treatise on method, and only on method, by any of the founders of dialectical materialism. The specific methodological postulates are scattered through the following works: Marx(235, 231), Engels(96, 97, 98), and Lenin(187). Furthermore, at no place do any of these men speak precisely of the steps in the dialectical method as applied to definite problems of scientific research. However, all of them considered themselves as using the dialectical method in their own today obviously very important treatises on economics, sociology, and political science.[2] Consequently in the following lines the postulates attributed to dialectical materialism are gathered from rather widely separated sources.

The first point of agreement between dialectical materialism and field theory is the emphasis both place on the role of theory in the scientific process. We have seen that "theory," rather than crowning the scientific process after the "facts" are discovered, plays actually an integral part in their discovery. Marx, Engels, and Lenin constantly stress not only in the field of research but also in the field of practical activity that theory must be the guide to practice. The importance of theory, it must be remembered, had been pretty well denied throughout the later part of the nineteenth century owing to the widespread belief in positivistic materialism. Only in the twentieth century have methodologists in general given theory the role it deserves. In this respect the dialectical materialists were "far ahead of their time."

Furthermore, the dialectical materialists placed theory in the same role as does the field theory. According to them, theory represents the conceptual solution of perceived antithesis which must be synthesized in practice. Scientific activity is simply a particular form of adaptive behavior in general. From objective conditions (thesis), there arise human needs and wishes which in recognizing the conditions of the objective situation (antithesis) set up a course of action (synthesis) which changes reality. The scientist uses his theories to bring about new knowledge when they are tested in the experimental method. Lenin(187) considered general and scientific activity a dialectical process where the concrete (physical reality) was mirrored in the abstract (perception) in such

[1] *Cf.* Chap. XXII.

[2] There may be such a precise treatise on the dialectical method in the modern Russian literature. This, however, is unavailable to the author. It may be considered significant that my views on the nature of the scientific method were developed without knowledge of the methodological writings of Marx, Engels, and Lenin. I came upon these writings only after the present work was outlined in the greatest detail. I mention this fact not out of any personal wish for the "credit of independent individual discovery" but because the agreement is much more significant when it is considered that the principles are developed in various fields of endeavor.

a way that action could change the course of the concrete. There is much more than a surface resemblance between these views and the theory of the hypothetico-deductive method as we have developed it above.

The dialectical materialists furthermore were the first to point out the importance of *manipulation* in the scientific process. We pointed out[1] elsewhere that nineteenth-century social and biological science was concerned only with attempting to understand social and biological processes, while nineteenth-century physics was concerned with manipulation of physical processes in order to learn their laws and hence control them. It is implicit in dialectical materialism as well as field theory that manipulation is necessary for science. On this point Marx(235) wrote in his *Theses on Feuerbach*, "The philosophers have only *interpreted* the world in various ways: the point, however, is to *change* it."

The dialectical method stresses as does field theory that there is no local determination but that the structure of the field determines what occurs at any given locus within it. While it is true that Marx and his collaborators did not use the field-theoretical nomenclature this point is implicit in all their work. Sufficient examples of this have been given in the account of Marx's theory in Chap. XXII. Marx furthermore was the only economist who was primarily interested in functional analysis rather than structural analysis. This is shown perhaps most clearly in his definition of capital where capital is defined as a *relationship* rather than as a substance. Dialectical materialism as a method is concerned like field theory with the dynamic processes and laws rather than static conditions. As in field theory the laws discovered by the method of dialectical materialism are to be looked on as relative absolutes. The laws are absolute only under the conditions of the experiment or relative to the total surrounding field.[2]

There are certain points, however, on which dialectical materialism and field theory are not in agreement. Dialectical materialism supposes the complete historicity of natural law and stresses this particularly for the social sciences. We have seen that dynamic constructs must be temporal but need not be concerned with history as it is popularly understood. I believe that the emphasis on historical materialism in dialectical materialism as a method is necessary only until adequate dynamical constructs are established. Since these were not available at the time of Marx and Lenin, their insistence on historical materialism can well be understood. Field theory further deviates from dialectical materialism in its insistence on the use of mathematically defined operational constructs. The founders of dialectical materialism, however, could scarcely be expected to utilize in their methodology principles only discovered after their deaths. It is only fair to point out that in final analysis many of the methodological postulates of the dialectical materialists have found their way into modern scientific methodology without what is usually called "proper acknowledgment."

[1] *Cf.* Chap. IV.

[2] Lenin(187) stresses this point in his notes on dialectic. Lenin's foresight as a layman into the epistemological difficulties in which modern physics has fallen is truly remarkable. He wrote in 1909 midway between the special and general relativity theories.

APPENDIX B

THE TOPOLOGICAL AND NON-METRICIZED DYNAMICAL VARIANTS IN SOCIAL FIELD STRUCTURE

In this Appendix we attempt a precise definition of those concepts which may be used as *constructs* in developing a theory of the psychological field. The chief concept is that of the field itself. Let us consider it.

1. The Field Concept

The idea of the field has been widely though somewhat loosely used by many contemporary psychologists, usually without any attempt at an adequate definition. Among others we mention Koehler and his students, who use the idea of sensory fields and sensory field structure(172, 174, 35). Wheeler, in his *Laws of Human Nature*, speaks of laws of field dynamics,(353). Most recently Gengerelli(129) has used the term in connection with a study of the neurological basis for human learning. It is easily understandable that a concept which has been fruitful for physical research should be adopted by psychologists at the time when psychology is changing from an Aristotelian to a Galilean science. But much confusion could have been avoided if, in adopting the concept, the users had defined it and shown its relation to the concept as used in physics. Our definition will not attempt to cover all the possible usages of the term field in psychology, but only to give the one most valuable for the present time.

The *psychological field* is a mathematical spatial construct to which all psychological behavior may be ordered. All psychological events (perception, emotion, learning) may be said to occur in the psychological field, just as electrical events occur in the electromagnetic field or events of free fall occur in the gravitational field. Every sample of human behavior may be analyzed physically, chemically, biologically, physiologically, psychologically, sociologically, perhaps also ethically. I refill my fountain pen. The physical analysis of such an event would describe the energy exchanges in terms of mechanics (possibly in terms of the changes in atomic structure) which occurred as my hands executed the movements necessary for this act. Chemical analysis would be concerned with the chemical changes attendant upon it. The biologist would treat the activity as a problem in ecological adaptation. The physiologist would concern himself with the changes in the biochemistry of my body during the behavior. *To the psychologist the behavior is analyzable as an example of goal-integrated activity.* The sociologist would be concerned with the possible results of the act in the social group to which I belong. The ethicist must decide as to whether I have done right in filling my pen in order to write the lines which you are now reading. Any analysis of the behavior requires *abstraction* of certain of its aspects. To describe the physics of the act the physicist makes use of the construct of the gravitational

field; psychologically the act may best be described as occurring in a psychological field. Statements like "the rat is hungry and trying to get the cheese,"[2] "I am attempting a clarification of psychological theory," are to be *ordered* to vectors within psychological fields. The psychological field is a *construct* to which all psychological activity (*i.e.*, behavior) may be ordered. It is spatial in the sense in which space has been defined above, and likewise mathematical.

The idea of the psychological field may perhaps be clarified by comparing it with mathematical and physical fields. Mathematical fields are spatial *regions* which may be either scalar or vector fields. A scalar field is a region where every point may have an associated set of magnitudes. A vector field is a region where every point is characterized by both direction and magnitude. Physical fields, as for instance force fields, have every point characterized by a vector, which represents the potential at that point. The points in the psychological field are associated with both direction and magnitude but these may for the present only be non-metrically defined. The behavior of an organism may be said to be *directed toward a goal. The force behind the behavior may be said to have a magnitude.* The magnitude may have an index figure assigned to it.[1] Whenever an organism behaves psychologically, it may be said to be behaving in a psychological field. The goal which it is "trying" to find is to be ordered to a point within this psychological field. The force which is causing the behavior is to be ordered to a vector within this psychological field, as is its present position.

For first analysis a two-dimensional plane suffices as an adequate construct for all psychological behavior problems. (A one-dimensional manifold would not be adequate, because we would then have no possibility of ordering behavior which was not in the simple direction toward or away from the goal.) In the language of data, there is a rat (a man) which (or who) is trying to get cheese (a solution to a mathematical problem). In the language of constructs, there is a vector in the psychological field, activating the rat (man) toward the goal (cheese or the solution of the problem). Both organism and goal are to be ordered to positions in the psychological field. The force (language of constructs) to which the behavior (language of data), of both is to be ordered represents a directed magnitude. The value of this vector depends on its position in the field. It is well known that when the goal is nearly attained the magnitude of the vector is greater.[2] From this one can conclude that the coordinates to the points in the psychological field have magnitude. But the magnitude which must be assigned to position within the psychological field is non-metricized. *Point values in the psychological field are not yet metricized in character, while those in physical fields are metricized.* The direction of vectors in the psychological field may be defined for certain problems through the distinctive path between points within the field.[3] Consequently the chief methodological difference between the psychological field and the physical field is that direction and magnitude of the point values within the psychological field are not as yet to be given with the same

[1] It is necessary to introduce the concepts of both vector and goal at this point. The exact definition of these will be given later.

[2] *Cf.* Hull's goal gradient hypothesis(157), the findings of Ovsiankina on humans(261), and Wheeler and Perkins' law of increasing energy(355).

[3] Lewin has accomplished this in his recent paper on hodological space(205). We shall deal with it in Section 3.

precise definition. When bodies behave physically or psychologically this behavior may be ordered to the construct of the physical or psychological field. The physical and psychological fields both represent spatial constructs. Every psychological activity may be ordered, for first approximation, to a two-dimensional plane (a surface), where organism and goal represent certain spatial regions within the surface. The surface must be treated as a topological rather than a metricized field at the present time. It is mathematically possible to create as many additional dimensions to this continuum as are necessary to enable us to treat adequately the psychological descriptions of the language of data. We shall shortly see that, as soon as we get beyond our simplest problems, the introduction of a reality dimension is necessary.

One may use the construct of the psychological field for several types of psychological problem. *Sensory fields* are constructs applicable to problems of perception. Various regions in the visual field, for instance, have definite values in the perceptual process and perception depends on the structure of the visual field. *Individual action fields* are constructs which allow adequate ordering of the observed facts concerning goal behavior. The *social field* is a construct to which problems of sociology may be ordered. The adequate characterization of the structure of the social field allows us to deduce what may occur sociologically at any point within it.

We have already spoken of *field structure*. By it we mean the variation in precision with which the position of points may be given in the field. Following Lewin(205) we shall call fields *unstructured* where it is impossible to give the position of (*i.e.*, distinguish) points. A field is said to be *structured* when one can distinguish larger regions but not infinitely small regions within it. When one can distinguish infinitely small regions or points within a field it is said to be *infinitely structured*. The degree of structure refers to topological, *i.e.*, non-metricized, fields. The metric field is conceptually at least infinitely structured so that one may assign definite coordinate values to all points within it.

2. Topological Concepts

We must begin with a few definitions of topological concepts. Any segment of space represents a *region*, and all spatial configurations (or figures) are regions. A point, a line, a plane, and a solid are regions of respectively 0, 1, 2, and 3 dimensions. Points may be taken as topologically given, or they may be defined as the limiting case where n closed curves are so constructed that each succeeding curve lies within the boundaries of the one preceding it. In the following we shall speak of *point-regions* as those segments of space which will be treated mathematically as points. For the first approximation of many problems the individual may be ordered to a point-region in the psychological field. Similarly the goal may be ordered to a point-region, when the goal is clearly definable, *i.e.*, when one can give its exact position relative to the subject. This is by no means always the case for psychological activities. In cases of actual physical locomotion (all sorts of problems of mazes and circuitous routes), the spatial definition of the goal as point is relatively easy. When the goal is the solution of a mathematical problem or the attainment of a social status its definition is more difficult. A *line-region* connecting two points is called a *path*. Psychological *activity* of all sorts will be ordered to a path and may be said to represent

a *locomotion* in the psychological field. Thus a successful running of a maze represents a locomotion along the only path connecting the starting position with the goal position. One of the chief problems of surface topology is the connectivity of certain points through certain paths and the problem of defining through what regions the path must run in order that the locomotion be attained. Spatial regions are said to be *incident* when it is possible to construct a path from a point in one to a point in the other without crossing any other region. The problem of incidence of regions is of psychological importance for defining the possible locomotions between the individual and the goal. Regions are further characterized as *bounded* and *unbounded*, *limited* and *unlimited*, and *onefold*, *twofold*, to *n-fold connected*. The properties of such regions will be given in the following lines. These characterizations do *not* pretend to be precise topological definitions as it is necessary to introduce the concept of direction, which has no topological meaning. It is believed, however, that for purposes of introduction such an approach will better clarify the concepts as used in actual psychological research. Whether or not a region is limited or bounded and its connectivity may also be determined by pure topological methods.

A region in which a point-region continues locomotion in a given direction indefinitely without return to its initial position is *unlimited*. If the point-region returns eventually to its initial position the region is said to be *limited*. A region in which locomotion of a point-region in a given direction must eventually bring it incident to another region (the boundary) is *bounded*. If the point-region does not eventually become incident to another region, the region is said to be *unbounded*. A region in which any point may be connected to any other point by at least one path, so that the path becomes incident to no other region, is *connected*. A simply or onefold connected region is one which may be divided into two separate connected regions by any cut through the region. Such a cut divides the region into two regions so that every point within the original region belongs to either one or the other of the new regions but not to both. A twofold connected region requires *under conditions* two such cuts to create two simply connected regions; a threefold connected region three such cuts, and an *n*-fold connected region *n* such cuts. These concepts may perhaps best be illustrated by reference to Fig. I.

The curve A alone represents an unbounded region, *i.e.*, the two-dimensional topological plane. (The curve is broken to indicate the lack of boundary. It is of course necessary to draw it so, because the page itself is bounded.) The contours B, D, H, L, J all define limited, bounded regions, and as contours are topologically all equal. C and C_1 represent point-regions, and the lines connecting them are paths between them. All these paths are topologically equal. B is onefold connected, as one *cut* E may be constructed through the region, dividing it into two simply connected regions B_1 and B_2. D is twofold connected. D remains a simply connected region after the construction of the *cut* F through it. In order to create two simply connected regions, the cut G must also be constructed. All the figures lie in the unbounded, unlimited region A. They may be said to be constructed in it. After such constructions have been made the space may be said to be structured. Space is infinitely structured when one can distinguish infinitely small regions within it. Hence K may be said to represent a region that is infinitely structured, in that Cartesian coordinates may

be constructed within it and the x, y values of any point within it may be given. L on the other hand is structured, but we may only say that the point lies within both boundaries, *i.e.*, only its topological position may be given. In unstructured space we can say nothing about the *position* of a point. At the present time in psychology the space to which we assign most of our data may be said to be structured but not infinitely structured (*cf.* Lewin, 207).

The reader is perhaps by this time anxious to see how certain psychological data may be ordered to the topological concepts. The individual is ordered to a point-region in the psychological field. Suppose an individual is on the playing field of one of our modern American athletic stadia, such as the Yale Bowl. If all the exits are blocked the individual's actual physical locomotions occur in limited, bounded region. The region is, furthermore, onefold connected

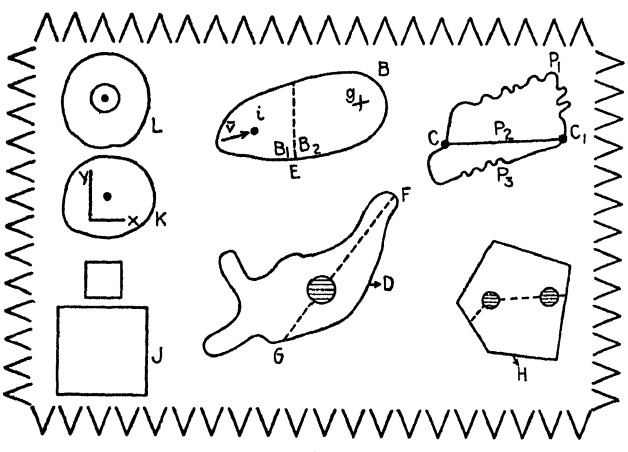


FIG. I.—The outside curve is curve A. It is broken to indicate lack of boundary.

because a barrier across the field would divide the field into two simply connected regions (*cf.* B in Fig. I). When the individual, either on instruction of the psychologist or on his own initiative moves, his direction of movement is indicated by the vector $\bar{v}$, which is a force directed toward the goal g.[1] In this case if one of the exit doors of the stadium is left open the field becomes unbounded and the individual may leave it.

The example just given is one of actual physical locomotion and the properties of psychological space may be directly ordered to physical space, so that the physical correlates of the subject's locomotion may be given. Although many of the specific problems of animal psychology are to be treated in terms of such a space, the chief problems of human and social psychology require a more developed spatial concept. All behavior is to be ordered to locomotion in the psychological field. The goal may be, as we pointed out above, of the nature of attainment of a certain social status or the solution of a mathematical problem. An individual A is a freshman student desirous of becoming a member of a certain

[1] The vector concept is a non-metricized dynamical concept and will be precisely defined in Sec. 3.

fraternity. In this case he is to be ordered to a position in space outside the region to which members of this fraternity belong. The situation topologically is given in Fig. II. *A* represents our student, *B* and *C* together the members of the fraternity. *A* wishes to get into the region *B* and *C*. In order for him to become a full-fledged member *C*, he must go through the pledge region *B*. Psychologically, in terms of the language of data, A wants to become a member

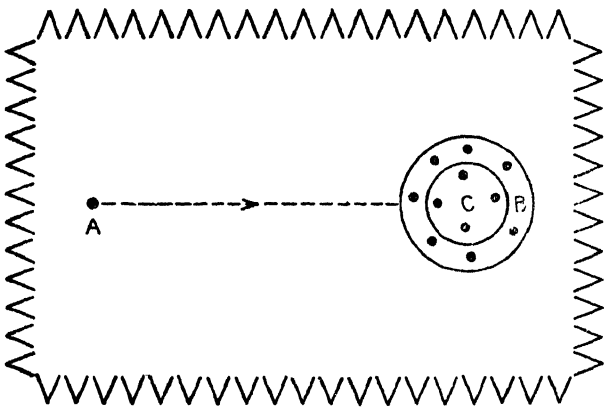


FIG. II.

of the fraternity. We order this situation to a field in which *B* and *C* represent bounded limited regions, where *C* lies within *B*. It is impossible to make the locomotion from *A*'s original position to *C* without first attaining membership-character in the region *B*. In this connection the *boundaries* surrounding both *B* and *C* must be crossed.[1]

A similar situation arises in the case of problem solution. If the individual is trying to solve the Pythagorean theorem, he must, in the language of data, make certain Euclidean constructions in order to arrive at the proof. Topologically the situation is that given in Fig. III.[2] It is necessary to go through regions *B* and *C* to get to the goal *D*. Not all individuals may fulfill this locomotion, and the "ease" with which the barriers are crossed distinguishes a good geometry student from a poor one. An individual is to be located in region *B* if he has gone so far in the solution of this problem that the first constructions are made.

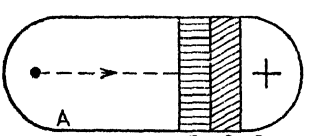


FIG. III.

Regions in the psychological field are marked off by boundaries. Boundaries have been topologically defined above. The psychological significance of boundary is that in crossing a boundary the individual's reactions are changed. Our freshman student behaves differently after he has become a member of the

[1] The exact definition of boundary and membership-character will be given shortly.

[2] For convenience in drawing we shall from now on discard the indication that all our constructions are in the two-dimensional topological plane and simply indicate the field of activity as a bounded region.

fraternity. Our geometry student's consciousness about the Pythagorean theorem as a problem is differently structured after he sees the first steps in its solution. Sociologically all the members of any organized group are to be ordered to a bounded region. Belonging to the group gives the individual certain psychological characteristics which differentiate him from nonmembers. Individual point-regions within a bounded region are said to have *membership-character* within that region. Consequently by membership-character we mean the pattern of reaction tendencies common to all the members of a group. We shall see shortly that the dynamics of the field determine the *variation* in membership-character among the individuals. All Catholics have membership-character in the bounded region to which the members of the Catholic Church are ordered, all Unitarians in the bounded region of the Unitarian Church. There is more variation in the Unitarian membership-character than in the Catholic. In other words a greater latitude of opinion on matters of religious dogma is allowed in the Unitarian Church. *All the individuals within a bounded social region are affected in their behavior through the fact that they have membership-character within this region.* The boundary may be said to be *quasi-physical, quasi-social,* or *quasi-conceptual.*[1] Quasi-physical are boundaries like prison walls and club buildings, where membership-character is marked off by an actual physical boundary. The quasi-social boundaries are those where social institutions and mores mark off the regions. The quasi-conceptual are those where intellectual factors function as boundaries.

Psychologically a boundary represents a barrier to locomotion. This barrier is not necessarily impenetrable, but in crossing it, the point-region (individual) becomes ordered to a new social region and his "psychology" is changed. It is convenient to distinguish between two types of psychological barrier, both of which represent topologically bounded social regions. In the following, *group-barriers* will be used to designate the limiting regions of social groups, *inner-barriers* to indicate blockages to locomotions within a given social region. Barriers may be quasi-physical, quasi-social, quasi-conceptual. The mores and social institutions, as well as actual walls and fences, are to be ordered to barriers in psychological space.

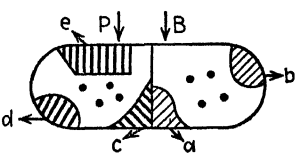


FIG. IV.

Figure IV gives the barrier characterization of the proletariat and bourgeoisie as social groups. *P* represents the proletariat group-barrier, *B* that of the bourgeoisie. *a, b, c, d, e,* all represent inner-barriers within these group-barriers. The detailed characterization of such barriers may only be given in connection with the non-metricized dynamical concepts now to be introduced.

The two-dimensional manifold allows us to treat of all initial positions and goals and consequently to give the topology for any psychological activity considered by itself. It has long been realized by psychologists, however, that there are decided differences in such activities as perceiving, thinking, dreaming, and daydreaming. The differences between such activities necessitate treating

[1] The prefix "quasi" indicates simply derived from physics, from sociology, from logic in these terms. We are interested only in the psychological effects of these physical, sociological, and logical entities.

problems of individual psychological acts in a three-dimensional manifold. The introduced third dimension has been called the *reality dimension* of the personality. It is necessary to introduce this third dimension because of the structural differences in activities which may occur practically simultaneously. Perceiving normally is said to have a higher degree of reality than thinking, and thinking a higher degree of reality than daydreaming. Thinking or even daydreaming may under circumstances, however, have a higher degree of reality than perceiving. The same goal may be perceived, thought, or dreamt about. Consequently the degree of reality is the third dimension of the psychological field. It is topologically treated as in Fig. V. (The reality dimension is *continuous*. In the diagram only the field structure for two planes in the con-

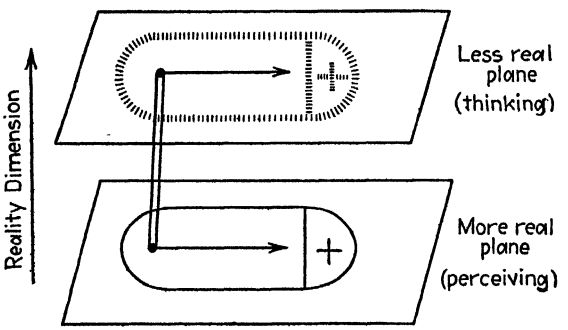


FIG. V.

tinuous dimension is shown. The barriers in the plane of lesser reality are indicated with broken lines to show their greater dynamical permeability, of which we shall speak in the next section.)

3. NON-METRICIZED DYNAMICAL CONCEPTS

The topological concepts allow us to assign individuals and goals to certain spatial regions. They allow us to designate what locomotions are possible for an individual and what regions must be traversed in attaining a definite goal. But the topological concepts alone tell us nothing of the actual locomotions performed in psychological activities. So far we have seen that the position of the individual at the start of the psychological activity may be defined in reference to this. Psychological activities may be ordered to locomotions. The individual in this sense has the character of a *thing*. The space through which the locomotion occurs has the properties of a *medium* (*cf.* Heider,137). In physical problems where the field construct is used, one may make this same distinction. Bodies falling in the earth's gravitational field have the properties of things, while the atmosphere is to be characterized as a medium. Similarly in the electrostatic field, the isolated conductors have the properties of things and the field has that of a medium. In the following, individual point-regions will be considered as things, and the fields in which the locomotions occur as media. Media have dynamic properties such as fluidity, permeability, cohesive-

ness, and the like.[1] Our next step must be to introduce these concepts, define them, and give examples of their use. Such concepts are of definite scientific value only when they are capable of *operational definition.* In other words, assignment of a certain fluidity to a field is permissible only when it is done on a definite experiential or experimental basis. They may perhaps be useful for speculation, before operational definition is possible. Our language of data is rich in phenomenological descriptions where non-metricized dynamic concepts are used and readily comprehended, and the adoption of them as constructs undoubtedly originates in such phenomenological descriptions. But *scientific meaning* accrues to such concepts only when they may be precisely, *i.e.*, operationally, defined. At the present time we may define these concepts in terms of *experimental* or *statistical indices.* We use the term index purposely to distinguish such numerical assignations from real or fundamental measurement. Experimental indices are gained from actual experiments and have their greatest use in problems of individual psychology. Statistical indices are used chiefly in problems of social psychology and sociology. Thus it is possible to use income-tax returns as an index for the permeability of boundaries separating social classes, or from questionnaire results to obtain indices for the variation of field fluidities among social groups.

In the following we shall suggest different operations which may be used in defining each concept. We do *not* wish at this early point in the development of field theory to commit ourselves to too definite procedures in defining our concepts, because, where several indices are available, it may later transpire that one of these has a particular value for a final definition. *In each specific problem where these concepts are used, it is necessary to give them an operational definition.* Unless this is done, the theory may become meaningless.

The non-metricized dynamical concepts which we shall use are fluidity, degree of freedom, degree of social locomotion, permeability, tension, and vector. The application of such concepts to psychological fields where the psychological space is quasi-physical, *i.e.*, where initial position and goal may be ordered to infinitely structured space (problems of mazes, circuitous routes, etc.), is quite obvious. For instance, the permeability of an electrical grid as a barrier may be assigned an index figure on the basis of strength of electric shock. The strength of a vector toward the goal of a maze may be non-metrically indicated by hours of hunger. For this reason we shall deal chiefly with examples of problems where initial position and goal are not so easily defined.

Fluidity.—By the degree of fluidity of a medium is meant the ease of locomotion in the medium.[2] Ease of locomotion depends not only on the fluidity of the medium, but also on the distribution of barriers in the medium and on internal psychological factors. It has meaning, however, to speak of the varying fluidity of psychological fields in themselves. For cases of actual physical locomotion it is quite obvious that *ceteris paribus* locomotion by walking across a street is in a

[1] Such dynamic terms have been frequently used by some sociologists and psychologists, usually without precise definition and without the realization that they represent theoretical constructs. It is hoped that the field-theoretical concepts will not be confused with these others.

[2] Lewin uses fluidity in a somewhat different sense and believes that only under special conditions may the ease of locomotion be used as a criterion for fluidity.

more fluid medium than swimming a stream of equal breadth. We speak, however, of the fluidity of psychological fields which have no immediate physical correlate and of the fluidity of social fields. Phenomenally one "moves about" more easily in daydreaming than in perceiving. Daydreams normally occur in a plane of lesser reality than perception and one is justified in assigning a greater fluidity to fields of lesser reality than to fields of greater reality.[1] Under such conditions fluidity may be operationally defined through the rate of diffuse discharge of tensions in the different fields. The memory for perceived acts and phantasied acts may be used for gaining an index figure to designate the fluidity. If the tensions in both fields may be considered equal, then perception may be said to occur in a field of less fluidity than phantasy when more perceived acts are remembered than phantasied acts. It goes without saying that such experiments require regular serial variation, control of motivation, and the other usual psychological controls.

Likewise social fields may be said to vary in fluidity where fluidity means the ease of social locomotion. One speaks popularly of "stiff" formal parties and compares these with "free" Bohemian ones. The formal party is to be ordered to a field of low fluidity, the Bohemian party is to be ordered to one of high fluidity.

Degree of Freedom of Social Locomotion.—By degree of freedom of social locomotion is meant the comparative number of directions in which social locomotion is possible. In a field having a high degree of freedom of social locomotion many locomotions are possible compared with a field having a low degree of such freedom. In general the degree of freedom of social locomotion varies inversely with the number of barriers within the field. The various social classes are to be ordered to fields of varying degrees of freedom of social locomotion. The bourgeoisie is to be ordered to a field of high degree of freedom of social locomotion, the petty bourgeoisie to a field of medium degree of freedom, and the proletariat to a field of low degree. Index figures may be assigned to the degree of freedom of such fields on the basis of economic and sociological statistics regarding income, consumption education, and the like(278). The various differences in degree of freedom of social locomotion are indicated in Fig. VI. There is a close coordination between the number of barriers and their permeability, of which we shall next speak.

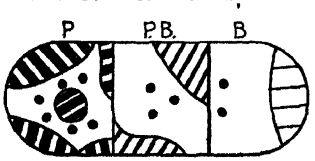


FIG. VI.

Permeability.—By the degree of permeability of a barrier is meant the ease with which locomotions are executed through the barrier. Here one distinguishes between group- and inner-barriers (*cf.* above).

The group-barrier of the Catholic Church may be said to be less permeable than that of Protestant denominations. One can join most Protestant sects by simply going to the meetings, whereas to obtain membership-character in the Catholic region it is necessary to take instruction, become baptized, etc. Operationally then we are quite justified in saying that the barrier permeability of the Catholic Church region is less than that of the Protestant. Figure VII

[1] *Cf.* the experiments of Brown(36) and Dembo(76) on this topic.

gives the dynamical characterization of this situation. Differences in permeability will be shown by thickness of boundary. Similarly one may speak of differences in barrier permeability for other groups and define the concept operationally. The boundary separating nations might be assigned an index of permeability on the basis of immigration statistics, that separating class groups within a nation on the basis of income statistics, etc.

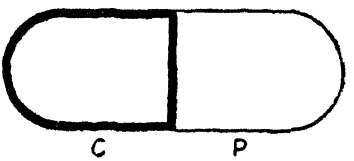


FIG. VII.

Inner-barriers, which represent impediments to locomotion within social field regions, likewise vary in their permeability. The barriers to which laws are ordered are more permeable in the field of the bourgeois than in the field of the proletariat. Operationally this may be indicated by the ease with which bail and counsel are obtained by the bourgeoisie in comparison with the proletariat. Similarly such taboos as being late to work represent barriers of decidedly different permeability for the executive, the salaried worker, and the wage earner.

Vectors.—The forces activating all locomotions in the psychological field are to be ordered to the concept of vector. These vectors represent forces causing psychological locomotion and are *directed* magnitudes. Their analogies in physical fields are the lines of field force within these fields. Such vectors, which represent forces, are to be indicated by arrows whose direction indicates the direction of the force, whose length represents its magnitude, and whose point of application is at the point of the arrow (*cf.* Fig. I). Vectors are also used to indicate locomotions, as in Figs. II, III, etc. Hence vectors represent the psychological force concepts. We say that the magnitude of vector varies directly with the ease of locomotion through fields and barriers of constant fluidity and permeability.

In all cases of actual physical locomotion vectors may be assigned index figures (though *not* measured) on the basis of hours of hunger, the strength of electric shock which will be suffered in attaining a definite goal, etc. Such procedures are so well known to experimental psychologists that further elucidation of them is unnecessary.

The assignation of "index figures" for vectors for locomotions other than physical may be accomplished through the operational definition of tension in terms of a memory index figure, or in the tendency to resume interrupted acts.

In the *social field*, the relative strength of vectors may be operationally defined through attainment or failure to attain membership-character in groups where the social goal lies within definite social regions or statistically through the outbreak of war, revolution, or industrial strike(39).

But vectors are directed magnitudes and the problem arises as to the definition of direction in psychological fields. Lewin(205) has recently attempted the mathematical solution of this problem and has been able to show under what conditions direction of vectors may be defined and what the prerequisites to such definition are. The following lines give only his findings. For the mathematical deductions and proofs the reader must go to his original paper.

For physical locomotions where there is no barrier between the initial position and the goal, the problem of definition of direction raises no particular difficulties. Direction is a binary spatial relationship, which may be defined in Euclidean space by two points and their sequence. Hence the direction from point *a* to point *b* of a Euclidean plane is given by the straight line joining them. The direction of the vector underlying physical locomotion, where there is no barrier lying in the line between the organism and the goal, is given by the straight line joining the organism and the goal. Hence a child walking toward a piece of

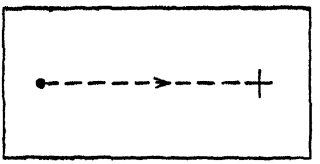


FIG. VIII.

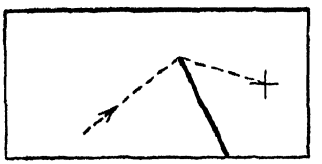


FIG. IX.

candy in a room is to be ordered to a field as in Fig. VIII. Such situations, however, are of little psychological interest, and as soon as a barrier is imposed the direction of the vector in quasi-physical space is more difficult of definition. Lewin introduces the concept hodological space, (*i.e.*, space of the path) and distinguishes between special and general hodological space. Special hodological space is space in which direction is defined by the initial differential quotient $\frac{dx}{dy}$ of the distinctive path between two points in the space. By distinctive (*ausgezeichnet*) path Lewin means one distinguished through some dynamic criterion, such as being the shortest in time, space, energy expenditure, or, under

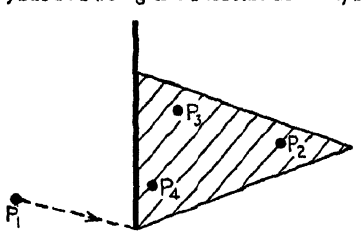


FIG. X.

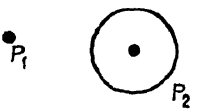


FIG. XI.

other conditions, longest in time, etc. Consequently, if a barrier is placed between the child and the candy in the above example, the hodological direction is as given in Fig. IX. The properties of such a space are immediately dependent on the psychobiological dynamics of the situation, because direction in it is definable only when these factors are taken into consideration. We saw above (Appendix A), however, that such a procedure is quite allowable in modern geometry. All problems of physical locomotion, where the initial position of the organism and the goal may be ordered to definite points, may be handled in special hodological space. However, in hodological space as opposed to Euclidean, there are multidimensional regions where the points are undifferentiated with regard to direction from a given initial point, and there are point pairs which are not related by a direction. Thus in Fig. X, all the points in the

shaded region A lie in the same direction from P_1. (The directions P_{12}, P_{13}, P_{14} are hodologically identical.) There is, further, *no* direction between P_1 and P_2 in Fig. XI, as there is no path between them. *The direction in quasi-physical space depends on the properties of the total field.*

When we attempt to define direction for problems where there is no direct correlated physical locomotion (problems in quasi-social and quasi-conceptual space) the difficulties which beset us are even greater. Physical space is usually infinitely structured (*durchstruktuiert*), while conceptual and social space in general only allow position to be topologically defined, *i.e.*, they are structured, but not infinitely structured.[1] Consequently the paths in *general* hodological space are between topological regions rather than between points. *Direction in general hodological space is defined as the step from the initial region to that contiguous region which lies in the distinctive path to the goal.* In the example given above, of the freshman and the fraternity, the direction towards C can be defined through the locomotion A to B. The *direction* in general hodological space is hence *relative* to the degree of structure of the psychological space. Lewin defines psychological space as a general hodological space. Consequently the magnitude of our vectors may be defined in terms of an index figure and its direction in terms of hodological space.

Cohesive Field Forces. Potential Difference. Tension.—In developing a theory of social dynamics I have found it necessary to introduce these three non-metricized dynamical concepts as well as those already given. *Cohesive field forces* are the forces binding together in the psychological field the point-regions ordered to the members of groups. The concept may be operationally defined through questionnaires on variation in opinion among the group. *Potential differences* between individuals as point-regions control the direction and magnitude of the cohesive field forces. The concept is necessary in order to deal with leadership. It is, where used, operationally definable. *Tension.* The vector concept is used only to refer to the field forces activating the individual as a point-region. Under conditions it is necessary to consider a whole social region under tension or in a tensional state. Such a condition obtains in all conflict situations. Lack of space prohibits a more complex presentation of these concepts at this point. They are introduced solely for the sake of completeness.

4. Criteria for the Fruitfulness of This Method

When I have presented the methodological and mathematical aspects of psychological field theory to my students and professional colleagues, certain criticisms and objections have arisen, almost invariably. The answer to most of these has been given either implicitly or explicitly in the foregoing lines. I believe, however, the reader may be spared much confusion by having these very common objections and criticisms presented and answered at this point. I am quite sure that those of my readers who have not read widely in the recent methodological literature will have already anticipated some of these.

The first set of criticisms is based on the idea that the concepts of field theory are simply physical concepts used without justification, or are, at the most, concepts based on physical analogy. On first acquaintance with the concepts

[1] *Cf.* the distinctions structured, unstructured, infinitely structured given above.

such a misinterpretation occurs quite frequently. Even one of my students made it in a published paper(299). The objection runs: "The field theory simply uses concepts of physics, which are meaningful in that science, but are not so in psychology. All this talk of vectors and fields and fluidity may have meaning in physics, but their use in psychology is not justifiable." The concepts are *not* physical concepts but rather constructs which play the same role in psychological theory as the dynamic concepts in physical theory. The concepts are "physicalistic" in the methodological sense, not in the conceptual sense. A variant on this argument runs: "The concepts of field theory are simply analogies drawn from physics." It is true that they play a methodologically analogous role, but they are epistemologically just as valid as physical constructs are. The physicist observes the stone falling and invents the construct of the gravitational field. The psychologist observes the rat move toward the goal (or the mathematician move toward the problem solution) and invents the construct of the psychological field. The difference between psychological and physical field is a *mathematical* not an *epistemological* difference. In terms of the realism-nominalism debate both may be interpreted as real or nominalistic. It is, however, impossible to interpret the physical field as real and the psychological as imagined, or as a *conceived analogy* to a *physical reality*. A third objection closely related to the foregoing is the following: "The constructions of psychological fields are simply models in the nineteenth-century sense. Models are pedagogically important and help the scientist to clarify his thinking, but they are of no explanatory value." The answer here is implied in the reply to the previous objections. If by model one means any theoretical construction to which data may be precisely ordered so that consequent data may be predicted, then the objection is valid. It applies, however, equally well to physical theory, and when so used cannot be considered derogatory. All that explanation does in any science is to order the language of data to theoretical constructs in such a way that predictions may be made.

Another misunderstanding which frequently arises concerns the validity of psychological laws in comparison with physical laws. The objection: "The physicist has real laws and consequently the right to build theories on these. He can determine his point values. You cannot. Your laws are nothing but working hypotheses and do not entitle you to build such elaborate theories." The answer: It is quite true that psychological laws are non-metricized and topological laws rather than metrical and geometrical laws. But this has nothing to do with their validity. These limitations are admitted but their validity is affirmed. The scientific method which has been most fruitful in the past built theories before metrics were possible. Actually (*cf.* Appendix A) metrics develop out of laws rather than the inverse. We are at least doing the best we can in the light of past achievements in natural science.

Furthermore, it has been alleged that the statements of psychological field theory are not verifiable. The objection: "You do not know that tension is present or that this field is more fluid than that. You cannot verify your theories and they hence remain idle speculations." The answer: "No concepts are used which are not operationally definable and no speculations are entertained which may not be submitted to the *experimentum crucis*." This monograph should do much to dispel this completely unjustifiable criticism.

A theory, however, may be fool-proof without being particularly fruitful. In general the "good" theories of science may be said to have the following characteristics. The "best" theory for the explanation of sets of data fulfills, I believe, the following criteria. (1) It should be economical in that it should be based on the fewest and simplest postulates, which will adequately integrate the experimental data. But economy must not be purchased at the price of neglect of facts; the best theories of today are *not* those most easily understood by sophomores. The simple frequency-association theory of learning is much more "teachable" than the configurational theory but this does not make it more true. We believe that the field theory fulfills the economy criterion for scientific theory. Only those theoretical constructions are allowed which necessity demands. (2) The best theory should be the only possible theory, *i.e.*, the facts will not be so adequately explained by any other, and any other will contain contradictions. Space does not permit of comparison of field theory with various other modern psychological theories. I believe, however, that, if there is to be theory building at the present time in psychology, field theory is the only possible theory on the basis of the known experimental evidence. (3) The best theory should be fruitful in the sense of leading to an accumulation of integrated facts. Here perhaps opinion must play a role. The present writer has examined all the numerous psychological theories of the present time and believes the field-theoretical attack to be not only the most promising, but the most productive manner of approaching contemporary problems of psychology, social psychology, and sociology. (4) The theory must yield postulates to which universal assent may be obtained. If we insist on operational definition and experimental verification or falsification of our postulates, field theory, when understood, will fulfill this criterion.

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NAME INDEX

A

Abrams, 165
Adams, 284
Adler, 268, 283, 291, 305
Adoratsky, 461
Aichorn, 228–229
Alexander, 313, 328
Allport, F., 103, 198, 268–269
Allport, G., 97–98, 103
Alverdes, 120–121
Aristotle, 14, 25, 31, 36–41, 86, 238, 261, 275

B

Babcock, 144
Barnes, 128, 163, 366
Bateson, 277
Bean, 143
Beard, 362, 460
Becher, 479
Bentley, 81
Bergson, 25
Berle, 181
Berman, 238
Bernstein, 461
von Bertalanffy, 42, 65, 84, 262, 277, 440, 473, 479
Binet, 257, 470
Birenbaum, 299
Bogardus, 233
Bohr, 266, 473
Boring, 277
Bosanquet, 366
Bowers, 22, 315, 328
Brett, 277
Bridgman, 42, 56, 481
Briffault, 222, 234
Broad, 10–11, 22–23, 161–162, 165
Bronner, 22, 315, 328
Brown, J. F., 22, 42, 62, 261, 287, 309, 328, 469, 471, 496
Brown, W., 242, 248, 257
Browne, 165
Brüning, 344
Bryce, 385
Buchan, 128
Buehler, 479
Buell, 385
Bukharin, 112–116, 121, 234, 277, 391, 461

C

Calvin, 203
Campbell, 469–470
Cantril, 22
Cantwell, 186
Carlyle, 330, 348
Carnap, 22, 42, 481–482
Cassirer, 35, 42
Cattell, 257
Chamberlain, 385
Chapin, 344, 347, 385
Child, 263, 265
Churchill, 407
Coghill, 303
Cole, G. D. H., 22, 128, 144, 407–408, 460
Cole, M., 128, 144, 407–408
Conroy, 186
Cooley, 119–121, 218, 346
Corey, 385
Coughlin, 352
Cowley, 460
Cromwell, 369
Czuber, 244, 257

D

Darwin, 86, 204, 437, 439–440
Dashiell, 99, 103
Dembo, 290, 292, 299, 496
Dennis, 460
Descartes, 85–86, 88–89, 204, 474
Dessoir, 277
Dewey, 22, 219, 259, 261, 277
Dingler, 32
Dobzahnsky, 267
Dodge, 233
von Domarus, 261, 302
Driesch, 480
Duerkin, 263, 265
Dunlap, 95, 103, 186
Duranty, 426
Durkheim, 66, 81
Dutt, 392, 394, 408

E

Ebbinghaus, 288
Einstein, 44
Elwood, 186
Ely, 357
Emery, 461, 484
Engels, 165, 186, 234, 337, 348, 415, 449, 451, 461, 484–485
Entres, 277
Erfurth, 298
Euclid, 474, 477
Euler, 476

F

Fajans, 299
Faris, 95–97
Farrell, 186
Fearing, 85
Fechner, 470
Feigl, 22, 42, 481
Florance, 435
Folsom, 80, 103, 198, 234
Fouillée, 81
Fraenkel, 477
Franklin, 62, 477
Frazer, 12–13
Freud, 14, 68, 74, 80–81, 99, 161, 163, 165, 221, 229, 231, 234, 274, 283, 291, 303, 305–328, 338, 344, 347, 359–360, 434, 453
Freund, 299
Fry, 165

G

Galen, 236
Galileo, 14, 32–41, 204, 208–209, 216, 268, 275, 369, 472, 474, 476, 480
Galton, 257
Garrett, 257
Garth, 143, 252
Gauss, 475
Gengerelli, 487
Gibbons, 461
Goddard, 461
Goethe, 311
Graves, 234
Gray, 331
Green, 343, 345

H

Hart, 176
von Hartmann, 314
Hartmann, 304
Healy, 22, 315, 328
Hegel, 353, 366, 449–451, 459, 484
Heiden, 392, 408
Heider, 55, 494
Heisenberg, 266, 333, 471, 473
Helvetius, 260
Hempelmann, 284
Henderson, 270, 460
Hendrick, 22, 328
Herbst, 186
Herskovits, 144, 252
Hesse, 311
Hilferding, 461
Hindus, 426
Hippocrates, 236
Hitler, 331, 341–347, 352, 360, 387, 389, 392–394, 396, 398, 400, 402, 404, 406, 408, 435, 446
Hobbes, 261

Hobhouse, 91
Hobson, 217
Holcombe, 231
Hook, 186, 348, 444–445, 448, 451–452, 461
Hoover, 339–340, 342, 344
Hopkins, 165
Hoppe, 293, 299
Hoskins, 238
Hull, 488
Hume, 93, 165
Huygens, 216

J

Jaensch, 301–303
James, 328
Jeans, 204, 474
Jensen, 266, 473
Jordan, 266, 473
Jucknat, 293, 299
Jung, 305, 320

K

Kafka, 186
Kant, 11, 14, 44, 431, 450, 469
Karpf, 80, 82, 95, 103
Karsten, 299
Katz, 64
Kautsky, 461
Keller, 7, 22, 54, 201, 234, 275, 348, 353, 430, 437–438, 460
von Kerékjártó, 476–477
Kerensky, 412–413
Keynes, 9
Koehler, 42, 84, 254–255, 284, 353, 479–480, 483, 487
Koffka, 42, 80
Köppke, 298
Kornilov, 413
Krueger, 103
Kunkel, 66, 353

L

Laplace, 431, 472, 476
Laski, 143, 357, 366, 385
Lasswell, 143, 359
Lathrop, 298
Lavoisier, 204
LeBon, 65, 68–74, 80–81, 93, 99, 144, 219, 339
Leibnitz, 476
Lenin, 128, 143, 181, 186, 198, 345–346, 366, 375, 412, 415, 426, 449, 455–457, 461, 484–486
Leontiev, 455, 461
LePlay, 218, 234
Lerner, 460
Lévy-Bruhl, 66, 81, 261, 301
Lewin, 22, 34–35, 37, 42, 44, 47, 60, 62, 80, 84, 198, 260–261, 282, 288, 291, 293, 295–298, 302–304, 312, 318, 473, 483–484, 488–489, 491–495, 497–499
Lewis, 352
Lipmann, 186
Lippert, 460
Lippmann, 143, 439
Lissner, 290, 293
Lobachevsky, 474–475
Locke, 260–261
Loeb, 8
Long, 352
Lord, 225
Luther, 203, 369

M

McDougall, 30, 65, 68, 71–74, 80–81, 85, 88–91, 99, 213, 339, 433
Mach, 14, 42, 477
MacLeod, 366
MacMurray, 165
Mahler, 288, 292–293
Maier, 284
Malinowski, 222, 234
Marshall, 22, 357
Martin, 81
Marx, 14, 121, 143, 154, 165–170, 186, 200, 357, 366, 415, 430, 446–461, 484–486
Mead, 234
Means, 181
Mecklin, 198
Mencken, 276

Menninger, 274, 328
Merriam, 366
Meyer, 479
Montaigne, 238
More, 261
Mueller, 479
Muller, 267
Murchison, 101–103, 277, 484
Murphy, G., 101, 103, 277
Murphy, L. B., 101, 103, 277
Murray, 277, 366
Mussolini, 346, 352, 394, 408, 435, 446
Myerson, 103, 186, 234, 262, 277

N

Nagel, 469–470
Napoleon, 346
Nathan, 276
Neurath, 481–482
Newton, 204, 208–209, 216, 261
Niebuhr, 165
Nietzsche, 314
Nordenskiold, 277

O

Ogburn, 7, 135
Ohm, 471
Ovsiankina, 281–282, 288, 488

P

Pareto, 143, 167, 186, 251, 359, 430–436, 440, 446–448, 456–458, 460
Pearl, 257
Pearson, 42
Peirce, 481
Perkins, 488
Petermann, 479
Piaget, 261, 291, 301–303
Pittigliani, 408
Planck, 333, 483
Plato, 238
Poincaré, 474, 476–477
Porteus, 144

Q

Quetelet, 257

R

Radin, 143, 394
Rank, 305
Reckless, 103
Reichenbach, 244, 257, 470, 477
Reuter, 234
Riemann, 44, 60, 474–476
de Rivera, 389
Ritchie, 15–16
Roback, 238, 254
Robbins, 453
Robespierre, 369
Robinson, E. S., 189, 340
Robinson, J. H., 217
Rollins, 186
Roosevelt, 340, 344, 356
Rosenberg, 198, 426
Rubin, 64
Runner, 234
Runze, 165
Russell, 101

S

Scheerer, 479
Schleiden, 84, 218
Schlick, 479
Schneirla, 284
Schönemann, 143
Schopenhauer, 314
Schroedinger, 333, 483
Schroeter, 461
Schuman, 392, 408
Schwann, 219
Schwesinger, 277
Scott, 8
Shuey, 292
Sierpinski, 477
Sighele, 81
Simon, 257
Sinclair, 352
Small, 186
Smith, Adam, 93

Smith, Alfred, 339
Smith, G. H. E., 362, 460
Sombart, 461
Sorokin, 24, 103, 143, 205, 234, 372, 433–434, 460
Spencer, 200, 430, 437, 439, 460
Spengler, 186, 200, 217, 251, 429–430, 443–448, 450, 456–457, 459–461
Spinoza, 337
Stalin, 186, 341–342, 344–345, 347, 398, 410, 415–416, 426, 435, 449
Stebbing, 31, 109, 121
Steffens, 385
Storch, 302
Strachey, 9, 22, 134, 144, 209, 213, 216–217, 231, 251, 310, 327–328, 408, 460–461
Strong, 426
Struik 461, 484
Sumner, 7, 22, 116, 119–121, 201, 218, 234, 348, 430, 437, 460
Symonds, 103

T

Tarde, 91–92, 219, 339
Thomas, 226
Thompson, D'A., 62.
Thomson, 242, 248, 257
Thorndike, 91
Thrasher, 198
Thurstone, 103
de Tocqueville, 385
Toynbee, 217
Trotsky, 168, 184–186, 198, 412–413, 426
Trotter, 91, 143

V

Veblen, 359, 390
Voltaire, 238
de Voto, 460

W

Wagner, 404
Wallas, 91
Ward, 266
Warren, 91
Watson, 261, 319, 482
Webb, B., 418
Webb, S., 418
Wéber, 154, 165, 186, 217, 461
Weiss, 263, 482
Wells, 439
Wertheimer, 64, 472, 480
Westermarck, 222, 234
Wheeler, 42, 81, 94, 103, 262, 277, 285, 303, 337–338, 348, 360, 483, 487–488
White, A. D., 165
White, W. A., 294, 302
Whitehead, 208–209
Wiemann, 165
Williams, 425
Windelband, 277
Winter, 426
Wissler, 143
Wittgenstein, 481
Wöhrman, 298
Woll, 345
Woodger, 42, 65, 84, 262, 277, 440, 479
Wundt, 277

Y

Yerkes, 284, 353
Young, K., 103, 121, 144, 165, 186, 198, 234, 338–339, 348
Yule, 257

Z

Zeignarnik, 281–282, 288, 299
Znaniecki, 226

SUBJECT INDEX

A

Ahistorical analysis, 38–39, 199–201
Analysis, historical *vs.* ahistorical, 38–39, 199–201
  structural *vs.* functional, 26–28
  statistical, 101, 112
Anthropology, 21, 222–223
Attitude, defined, 97
  school of social psychology, 94–99
  and structure of field, 270–272
Atomistic-mechanism, 24–27, 29
  See also Vitalism; Organismic viewpoint)

B

Behaviorism, 30, 87–88, 220
Blockage, effect of, on personality, 290–295
  Freudian theory of, 319–324
Brookings Institution, 8

C

Capitalism, 202–213, 369–370
  Marx's critique of, 453–456
Causality, dynamical *vs.* statistical, 472–473
Church, the Catholic *vs.* Protestant, 156–159
  decline of, 203–205
  defined, 146
  relationship of, to state, 147–149
  social-psychological effect of membership-character in, 150–154
Class theory (*see* Field theory)
Classification, biological, 110–111
  economic-functional, 112–116
  functional-sociological, 111–112
Classification, natural *vs.* artificial, 109–110
  problem of, 109
Clergy, present day function of, 149–150
Communist dictatorship, aims of, 413–416
  conditions for rise of, 411–413
  control of state under, 416–417
  freedom under, 417–422
  probable success of, 414–416
  as a progressive phenomenon, 422–425
  relation of, to liberal democracy and fascism, 409–411
Communist Party, 190–191, 416–417
Compensation, value of, with reference to person structure, 288–290
  (*See also* Freudian theory)
Conscious (*see* Unconscious)
Cultural lag, 215–216

D

Daughters of the American Revolution, 188–189
Deduction, compared with induction, 30–31
Derivation, 433–434
Determinism (*see* Indeterminism)
Dynamics, constructs of, fluidity, 57, 495
  degree of freedom of social locomotion, 58, 496
  permeability, 59, 496–497
  potency of membership-character, 61
  vector, 59, 497
  contrasted with statics, 477
  non-metricized, defined, 55, 478

E

Economic crisis, social psychology of, 134–138, 172–176
  theories of, 6–10, 429–461
Economic recovery, prospects for, 428–429
Economics, 21
  Marxian contrasted with orthodox, 177, 453
Education, growth of, 207
Ego, 311–314
Elite, theory of circulation of, 434–435
Entelechy, contrasted with vector, 36–37
Environment (*see* Heredity)
Environmental traits, 272–273
Evolution, 437–441

F

Family, the, changes in organization of, 206–207, 222–223
  conflict situation in, 227–228
  and nation, 230–231
  rural *vs.* urban, 223–229
  and social class, 229–230
  social psychology of, 222–232
  sociological overemphasis on membership-character in, 231–232
Fascist dictatorship, aims of, 392–394
  compared with liberal democracy and communism, 401
  conditions for rise of, 388–392
  control of state under, 396–397
  freedom under, 396–402
  probable failure of, 394–396
  as a regressive phenomenon, 402–408
Fascist Party, 396–397
Feeblemindedness, field theory of, 298
Feudalism, 202–213, 369–370
Field, concept of, 43–47, 479–480
  degree of structuredness of, 47
  embryological *vs.* environmental, 262–267
  mathematical, 45
    compared with psychological field, 488–489
Field, psychological, defined, 44, 487
    of individual, 279–290
  social, defined, 44
    relation to individual psychological field, 299–301
Field theory, criteria for, 34–41
  historical background of, 83–85
Foreconscious (*see* Unconscious)
Freedom, under communism, 417–422
  economic, defined, 373
  under fascism, 396–402
    liberal democracy, and communism compared in tabular form, 401, 422
  intellectual-action, defined, 374
  of Leadership, 345–346
  under liberal democracy, 376–383
  personal-social, defined, 374
  political, defined, 375
  of social locomotion, defined 58, 496
Freedom of the will, 333–337
Freudian theory, of basic urges, 308–311
  critique of, 324–327
  of genius, 318
  of infantile sexuality, 319–324
  mechanisms in, 316–319
  popular misconceptions of, 306
  of the psychoses, 318
  relation to field theory, 305–306, 324–327
  of structure of personality, 311–316
Friendships, field-structure in, 232
Functional concepts, contrasted with substantial, 37–38

G

Genotype, defined, 33–34
  of mob behavior, 75–77
  residues as, 433–434
Geometry, development of modern, 473–476
Gestalt psychology, relation to field theory, 30, 64–65, 303, 483
Goal, 51, 281
Government, contrasted with state, 351
Group-mind hypothesis, 65–74

H

Heredity, as conditioned by embryological field, 262–267
vs. environment, 67–68, 260–262
operational analysis of, 262–264
traits of, 267–270
Historical analysis (*see* Ahistorical analysis)
History, 199–201
Hodological space, 60–61, 497–499
Hoover committee, 112
Human nature, early theories of, 258–260
and popular theory of the state, 354–355
present status of, as a scientific concept, 273–276
Hypothetico-deductive method, 31–33, 39, 484

I

Id (*see* Ego)
Imitation, 91–93
Imperialism, 205–206
Indeterminism, and freedom of the will, 333–337
in germ plasm, 266–267
in modern scientific theory, 473
Index figures, 56–57
limitations on use of, 130–131, 401–402, 495
Individual, the, effect of, on the group, 100
psychological field of, 279–290
relation to social field, 299–301
as a social field, 232–233
Induction, compared with deduction, 30–31
In-group, 116–119
Instinct, *vs.* intelligence, 85–88
in school of social psychology, 88–91, 219–220
Intelligence quotient, changed by manipulation of environment, 271–272
Invention, relationship of, to revolution, 213–217

K

Ku Klux Klan, 188–190

L

Laissez-faire, 440
Language, of constructs, 33–34, 481
of data, 33–34, 481
(*See also* Genotype; Phenotype)
Laws, in relation to measurement, 471
Leader, the, characteristics of, 346–348
Leadership, field theory of, 337–342
hero theory of, 330–331
history theory of, 331–332
laws of, 342–346
Liberal democracy, control of state under, 383
and fascism, 384, 401
field-theoretical definition of, 370–373
origin of, 369–370
Love affairs, field-structure in, 232

M

Magic (*see* Science)
Manipulation, environmental, possibilities of, 264–267
importance of, in science, 78–80, 484–486
Materialism, dialectical, 449–452
relation of, to field theory, 484–486
historical, 452–453
Measurement (fundamental), defined, 469
nature of, 471
Membership-character, definition of, 53
Method, the scientific, criteria for adequacy of, 63
difficulties of, 15
hypothetico-deductive, 484

Minor group, 187–188
in conflict, 192–194
field-dynamical treatment of, 188–191
membership-character for atypical individuals, 192
occasional importance of, 189–191

N

Nation, defined, 122
social psychology of, 124–126
Nationalism, 371–372
Negro, position of, in U. S., 138–141
Neopositivism, 481
New Deal, 7
Normal probability curve, 240–249
bimodal distribution, 242
change of limits and averages through control, 249–251
skewing, 243
theory of, 244–249

O

Operational definition, 56–57, 495
Organismic viewpoint, 27–30
Out-group (*see* In-group)

P

Person structure, 295–299
boundary of, 279
central sphere of, 279
degree of differentiation of, 278–279
genesis of, 301–303
regions of, 279
Personality, defined, 239
distribution of the total, 251–252
hereditary *vs.* environmental traits, 267–273
history of theories about, 237–238
as pattern of membership-character, 254–256
popular misconceptions of, 238–239
traits of, 240
distribution of, 249–241
Phenomenology, 19
Phenotype, defined, 33–34
derivations as, 433–454
Philosophy, critical *vs.* speculative, 17–19
(*See also* Social philosophy)
Population, law of, 7
Psychoanalysis, 21
as a therapeutic technique, 318–319
(*See also* Freudian theory)
Psychometrics, 470–472
Psychosis, Freudian theory of, 318
preliminary field theory of, 294–295

R

Race, defined, 122
negro, social psychology of, 138–141
Reality, degree of, 54, 284–290
genesis of, 301–303
Religion, defined, 145
necessity for religious behavior, 159–164
Residues, 433–434
Revolution, conditions for, 176–178, 183–185
contrasted with general strike, 183
relationship of, to invention, 213–217

S

Science, defined, 17, 469
differentiated from magic and religion, 11–14
divisions of, 18–19
metaphysics and, 14
and philosophy, 17
Sentiment, 433, 434
Social classes, defined, 112–116, 166
social psychology of, 169–172
struggle of, conditions for decrease of, 173
conditions for increase of, 172
debate concerning importance of, 166–169
at present time in U. S., 176
Social groups, effect of, on the individual, 99–109

Social groups, open *vs.* closed, 120
primary, 218–222
vs. secondary, 119
the reality of, 65–68
Social habit, 94
Social philosophy, theories of, 427–431
evolutionary socialists, 441–443
field theory of, 458–460
Marx's, 448–458
Pareto's, 431–437
social evolutionists', 437–441
Spengler's, 443–448
Social psychology, definition of, 3, 20
experimental, 101
historical *vs.* ahistorical analyses in, 38–39, 199–201
need for, 5–11
present status of, 4, 41, 100–102
in relation to other sciences, 17–21
Space, defined, 474
State, defined, 123, 355–356
Hegel's theory of, 352–353
Marxian theory of, 357–360
modern, rise of, 205–206
popular theory of, 351–355
role of, in social change, 141–142
social-contract theory of, 352–354
State control, genesis of, 360–361
through persuasion, 364
relation of, to social class, 361–365
Statistics (*see* Normal probability curve)
Strike, general, 180–182
local, 178–180
protest general, 182
Struggle for existence, 438–439
Substantial concepts (*see* Functional concepts)
Suggestion, 93
Super ego (*see* Ego)
Sympathy, 93

T

Technocrats, 8
Topology, concepts of, 43*ff.*, 489*ff.*
barrier, 53, 493
boundary, 52, 492
locomotion, 51, 490
membership-character, 53, 493
path, 51, 489
point-region, 50, 489
reality dimension, 54, 494
region, 49, 489
topological mean, 61
defined, 47, 476
historical development of, 476
Topological mean, membership-character within, 194–196

U

Unconscious, 314–316

V

Vector, contrasted with entelechy, 36–37
defined, 497
relationship to tension, 281–283
Vector field, 45
Vitalism, 24–27, 29

W

War, social psychology of, 127–134
Whole, the problem of relation of, to parts, 64–65