UNIVERSAL
LIBRARY
OU_148774
UNIVERSAL
LIBRARY

LIPPINCOTT'S SOCIOLOGICAL SERIES

EDITED BY EDWARD CARY HAYES, PH.D., LL.D.

PROFESSOR OF SOCIOLOGY, UNIVERSITY OF ILLINOIS

RECENT DEVELOPMENTS IN THE SOCIAL SCIENCES

LIPPINCOTT SOCIOLOGICAL SERIES

EDITED BY EDWARD CARY HAYES, PH.D., LL.D.
PROFESSOR OF SOCIOLOGY, UNIVERSITY OF ILLINOIS

SOCIAL PROGRESS
By ULYSSES G. WEATHERLY, PH.D., LITT.D.
Indiana University

SOCIAL WORK IN THE LIGHT OF HISTORY
By STUART A. QUEEN, PH.D.
University of Kansas

POPULATION PROBLEMS
By E. B. REUTER, PH.D.
University of Iowa

POLITICAL ACTION
A Naturalistic Interpretation of the Labor Movement in Relation to the State
By SEBA ELDRIDGE
University of Kansas

RACES, NATIONS AND CLASSES
The Psychology of Domination and Freedom
By HERBERT ADOLPHUS MILLER, PH.D.
Ohio State University

CRIMINOLOGY
By E. H. SUTHERLAND, PH.D.
University of Illinois

THE SOCIOLOGY OF REVOLUTION
By P. SOROKIN
Formerly Professor of Sociology in the University of Petrograd

MODERN IMMIGRATION
By ANNIE M. MACLEAN, PH.D., LITT.D.

RECENT DEVELOPMENTS IN THE SOCIAL SCIENCES
By seven representatives of the social sciences

VOLUMES IN PREPARATION

TRIBAL SOCIETY
Study of the Structure and Function of Primitive Social Systems
By ALEXANDER GOLDENWEISER, PH.D.
New School for Social Research, New York

SOCIOLOGICAL FOUNDATIONS OF EDUCATION
By DAVID SNEDDEN, PH.D.
Columbia University

LIPPINCOTT'S SOCIOLOGICAL SERIES

EDITED BY EDWARD CARY HAYES, PH.D., LL.D.

PROFESSOR OF SOCIOLOGY, UNIVERSITY OF ILLINOIS

RECENT DEVELOPMENTS IN THE SOCIAL SCIENCES

CHARLES A. ELLWOOD, Ph D., Litt.D.
UNIVERSITY OF MISSOURI

CARL O. SAUER, Ph.D.
UNIVERSITY OF CALIFORNIA

CLARK WISSLER, Ph.D.
YALE UNIVERSITY

JOHN M. CLARK, Ph.D.
COLUMBIA UNIVERSITY

ROBERT H. GAULT, Ph.D.
NORTHWESTERN UNIVERSITY

CHARLES E. MERRIAM, Ph.D., LL.D.
UNIVERSITY OF CHICAGO

HARRY E. BARNES, Ph.D.
SMITH COLLEGE



PHILADELPHIA AND LONDON
J. B. LIPPINCOTT COMPANY

COPYRIGHT, 1927, BY J. B. LIPPINCOTT COMPANY

PRINTED BY J. B. LIPPINCOTT COMPANY
AT THE WASHINGTON SQUARE PRESS
PHILADELPHIA, U. S. A.

EDITOR'S INTRODUCTION

WITHIN a generation developments in the social sciences have taken place which promise to be of unprecedented significance. Two causes have contributed to this result.

One of them is the spirit of democracy, eighteenth century idealism ripened into twentieth century realism. The somewhat wayward youth of this movement and its gradual maturing are marked by a long list of brilliant names from Condorcet to Sidney and Beatrice Webb. This movement is sometimes called the growth of the "social spirit." It might perhaps with equal propriety be called the new individualism.

The old individualism was the assumption that each one had the right to use his fellow men as means to his ends. The new individualism regards each individual as an end in himself. Not that the values realizable in different individuals are equally great, but that they are equally real and therefore to be taken into account. The state no longer is a Frankenstein to which the individual is to be sacrificed. In "politics" men may still be pawns, but no longer in political science. Whatever may be true in "business," in economics the entrepreneur is coming to be regarded as the captain of the destiny of a group of organized co-workers. And history no longer is merely an account of the deeds of dominant individuals or ruling classes, but a story of the unfolding life of peoples.

But the new individualism is only one of the two causes of the recent development in the social sciences. There is another without which "social philosophy" would not have graduated out of romanticism into real-

ism. Its rise and growth is marked by another long and brilliant list of names, including for example, Spencer, Comte, Quetelet, LePlay, Durkheim, Ratzenhofer and Giddings in Sociology, Bastian, Wundt, Boas and Sumner in Folk Psychology, Ritter, Ratzel and Semple in Anthropogeography, Lamprecht, Bernheim, Seignobos and Robinson in History. Such names stand for the conviction that the life of man must be included in the field of natural science. This, like the new individualism, is one of those ideas that "rule the world or throw it into chaos." It has gradually pervaded the lives of men as knowledge of causes encroached upon the "great man" theory and upon old metaphysical conceptions. The idea that whatever is is caused, not in a metaphysical sense, but in the sense that each observable fact is conditioned by antecedent and accompanying facts, gave rise to the habit of looking for the conditions that affect results and of expecting to find answers to problems of the life of man, not by closing the eyes to ponder but by opening the eyes to look and faring forth to search. And the practice of this habit is yielding a new insight into the nature of human life and destiny, revealing the fact that each individual life, in so far as it is anything distinctively human, is a participation in the social life, and each historic event or epoch is a ripple or a curve in the one great river, the flowing life process of humanity.

Thus has arrived the realization that "social science is not many but one" and a new understanding of the injunction to "see life steadily and see it whole." Minute specialization does not seem less important but more so because its relation to the larger whole is perceived. Both analysis and synthesis, the two phases in the method of science, become more painstaking and complete.

Moreover, the new interest in the values of each

human life, which is the essence of the new individualism coupled with the realization that each individual destiny is involved in the universal interrelationship of causes and consequences, make of the social sciences a philosophy of life. When this matter of fact philosophy becomes clear it involves the realization that ethics is no more metaphysical than chemistry or agriculture. "Each act is caused" is seen to be half of a truth of which the other half is "each act is a cause." This truth, coupled with an understanding of the relation between acts and their consequences, functions in the world of human weal and woe as knowledge of the difference between toadstools and mushrooms or knowledge that mosquitoes carry malaria, functions in its narrow but vital application.

Such perceptions as these, which characterize the state of mind that now more or less permeates the social sciences, have been particularly fostered by the intellectual movement to which the name "sociology" has been given. While the clarifying of these perceptions and of their implications may be henceforward the task of a special group of workers, every special social science will be illuminated by keeping them in mind. Moreover, the discovery of the broader aspects of social causation and interrelation is not to be credited exclusively to any one group of workers, but has been helped on by workers in different fields who have looked up from their special researches to announce their inklings of deeper insight, and in doing so have discovered that colleagues on every side were catching similar glimpses.

E. C. H.

UNIVERSITY OF ILLINOIS.

CONTENTS

CHAPTER PAGE

I. RECENT DEVELOPMENTS IN SOCIOLOGY 1
By CHARLES A. ELLWOOD, PH.D., LL.D.
Professor of Sociology, the University of Missouri

II. RECENT DEVELOPMENTS IN ANTHROPOLOGY ... 50
By CLARK WISSLER, PH.D.
Curator-in-Chief, Division of Anthropology, American Museum of Natural History; Professor of Anthropology, Institute of Psychology, Yale University

III. RECENT DEVELOPMENTS IN PSYCHOLOGY CONTRIBUTORY TO SOCIAL EXPLANATION..... 97
By ROBERT H. GAULT, PH.D.
Professor of Psychology, Northwestern University; Editor, *Journal of Criminal Law and Criminology*

IV. RECENT DEVELOPMENTS IN CULTURAL GEOGRAPHY 154
By CARL O. SAUER, PH.D.
Professor of Geography, University of California

V. RECENT DEVELOPMENTS IN ECONOMICS..... 213
By JOHN M. CLARK, PH.D.
Professor of Economics, Columbia University

VI. RECENT DEVELOPMENTS IN POLITICAL SCIENCE 307
By CHARLES E. MERRIAM, PH.D., LL.D.
Professor of Political Science, the University of Chicago

VII. RECENT DEVELOPMENTS IN HISTORY 328
By HARRY E. BARNES, PH.D.
Professor of Historical Sociology, Smith College

RECENT DEVELOPMENTS IN THE SOCIAL SCIENCES

CHAPTER I

RECENT DEVELOPMENTS IN SOCIOLOGY[1]

BY CHARLES A. ELLWOOD, PH.D., LL.D.
Professor of Sociology in the University of Missouri.

THE most pronounced tendencies of present day sociology are: (1) To stress the importance of the mental side of social life and so the close interdependence of psychology and sociology; (2) to overcome "particularism" by an organic or synthetic view of the social life; (3) to develop a composite method which shall synthesize all minor methods of social research and investigation. Perhaps we should also add that there is a pronounced tendency to develop sociology at the present day in the interest of ethical ideals and of social reconstruction. This tendency is, however, not shared by all the sociologists of the day. A minority protests vigorously, not only against ethical sociology, but against any connection of sociology with practical social movements. Other tendencies of contemporary sociology will be manifest as we proceed with recent developments, but these four tendencies are pronounced in the work of present day sociologists.

INFLUENCE OF OTHER SCIENCES

Throughout its history sociology has been greatly influenced by developments in other sciences. This is still the case. Present day sociology is especially influenced

[1] This chapter attempts to cover only the developments since 1909 and among these only those which seem to the writer of marked significance and value for the future of sociology.

by developments in biology and psychology and in the related special sciences. A considerable school of sociologists, however, still seek inspiration in the work of the more exact physical sciences.[2] This is especially true on the side of method. A notable group of younger sociologists are now contending that observation and experiment, the two prime methods of the physical sciences, are also the chief methods which should be employed in the social sciences. These writers have not carefully defined for us the limits of observation and experiment in the sociological field; but it is evident that they do not intend to employ them in exactly the same way that the physical scientist does. Evidently this is an extension of the "behavioristic" movement in psychology to the field of the social sciences. We shall have occasion to refer to this movement later.

[2] An interesting attempt to carry over the methods of the mathematical and physical sciences to the field of sociology by an eminent European sociologist is to be found in Vilfredo Pareto's *Traité de Sociologie Générale*, in two volumes, published 1917–1919. Pareto holds that sociology is a logical experimental science, capable of being developed by the same methods as mathematics and physics. Human society is considered, in Pareto's work, as a system of molecules which have certain properties, in space and in time, undergo certain combinations, and present certain relations.

In the United States, in a somewhat different way Professor N. L. Sims has attempted to revive the physical interpretation of human society in his work, *Society and Its Surplus*, 1924. Professor Sims holds that the shifting of sociology from its Spencerian basis as a physical philosophy of society has been a mistake; for "society is essentially a physical phenomenon." Hence he holds, "sociology may be described as the science of the cosmic process in the social order or, more definitely, the science of group energy and power." It should deal, therefore, with the energy of social aggregates, treating specifically of the genesis, development, extent, modes, distribution, integration, conservation, dissipation, degradation, elevation, direction, general influence and behavior of this energy.

A somewhat similar point of view is found in the works of Professor T. N. Carver, especially in *The Economy of Human Energy*, 1924. Professor Carver finds that the life-process both of individuals and of groups consists in transforming "the largest possible sum of solar energy into human energy." Civilization consists of forms of storing this energy, and social welfare depends upon its utilization in such ways as to increase its sum total.

The main influence from the field of other sciences, outside of the special social sciences, has come to sociology from biology and psychology. Of recent years many of the workers in biology and psychology have practically turned sociologists and attempted to transfer generalizations from their fields directly to the phenomena of human society. They have been prompted to do this, not only because of their interest in social problems, but also probably because students of the social sciences have of recent years tended strongly to recognize that the explanatory principles of their sciences must come ultimately from biology and psychology.[3] However, these varied attempts of biologists and psychologists to transfer their generalizations uncritically to human society have started a reaction, which among some students of the social sciences has led even to the extreme of denying any necessary connection of the social[4] with the biological and psychological.

Again, the influence of the special social sciences, particularly of economics, political science, and cultural anthropology, has always been strong in the sociological field. Many of the workers in the field of sociology originally were trained in these narrower fields. Like the biologists and psychologists they have often not hesitated to carry generalizations from these narrower fields over to the wider field of total human social life. Hence sociology from its beginning has been troubled also by "particularism" of this sort. No modern student of sociology would deny the great contribution which these special social studies have made, and are

[3] A critical demonstration of the bearing of psychology upon all the social sciences is to be found in Professor J. M. Williams' book, *The Foundations of Social Science*, 1920.

[4] This word is used in this chapter in the same sense in which some writers employ "societal."

making, to the understanding of total human social life. But particularism of this sort has been found to be not less dangerous in the production of inadequate social views than the particularisms of the biologists and individual psychologists. Hence a reaction has also arisen against the over-influence of any special social science in the sociological field, and more emphasis is now being thrown upon an organic or synthetic view of social life.[5]

These main trends in modern sociology, while manifest in many writers of the present day, perhaps first came most clearly to expression in the writings of Charles Horton Cooley, professor of sociology in the University of Michigan. Professor Cooley's *Social Organization*, published in 1909, showed all of these main trends of contemporary sociology, and the date of publication of this book may be taken as a convenient starting point for the discussion of recent developments in sociological science. The book itself has become, in the United States at least, a sort of a manual and guide for the most representative sociological thinkers of the present. Professor Cooley's other two books, *Human Nature and the Social Order*,[6] and *Social Process*,[7] have also been influential, but they may be regarded as supplementary to the book first mentioned which contains the central doctrines of Cooley's sociology. We shall of course have to pay attention to other schools of sociological thought, but it will be convenient to make the school which shows most clearly the four pronounced tendencies, which we mentioned at the beginning, central in our discussion of recent developments in sociology and note the other schools as deviations from this main type.

[5] See Cooley, *Social Process*, Chap. v.
[6] Published 1902; revised edition, 1922.
[7] Published 1918.

INDIVIDUAL AND SOCIAL CONSCIOUSNESS

Professor Cooley tells us at the beginning of his *Social Organization* that it is to be a study of "the larger mind"; that mind has two manifestations, one in individual life and consciousness, the other in social life and social consciousness; that these are not separate, but aspects of the same process.[8] He emphasizes that he proposes no ignoring of the material or physical factors in the life of human groups, but only the study of that life as it actually goes on; and he finds that life to be a mental life. He does not go off into mysticism, as so many who have started with the conceptions of a social mind and a social consciousness have done. On the contrary, he proposes that the study of the larger mind, of social life, shall begin with those face-to-face groups in which all human individuals, savage and civilized alike, live, move, and have their being. He proposes to call these face-to-face groups, which are characterized by intimate, personal relations between individuals, "primary groups," since all other groups are derived from them, and since they were the primitive form of group life.[9] Such groups furnish the patterns, or rather the "ideals," for all groups. What we call "human nature" is more than the instinctive or hereditary nature of man; it is rather the nature acquired everywhere by all men in these face-to-face groups. Hence what we call human nature is "group nature," or a phase of the social mind.[10]

In other words, Professor Cooley finds that the primary social values and social attitudes of all men are acquired in their primary group life, and that much that has been supposed to be hereditary in human behavior

[8] *Op. cit.*, Chaps. i and ii.
[9] *Ibid.*, Chap. iii.
[10] *Ibid.*, pp. 28, 29.

is the result of this primary group life. Hence the study of social life, of social values, of social attitudes, and of everything concerned with human society must begin with the study of these primary groups. Here the observer can see most clearly the nature of group life, its influence on the character and behavior of the individual, and all the resulting traits of human society at large. Professor Cooley singled out the family, the neighborhood, and the play group as the primary groups which perhaps have been most significant for human social development. Each of these groups, he points out, has furnished certain main patterns, or primary ideals, for our social life. The family in particular has furnished us the ideal of social unity, the neighborhood that of equality, and the play group that of " fair play " or of justice. Certain values thus have issued from each of these groups which have given rise to other values in society at large or to cultural traditions. The tradition which finally was consolidated in Christianity, Professor Cooley believes, came mainly from the family, while the tradition which has expressed itself in the democratic movement came mainly from the neighborhood.[11]

In other words, Professor Cooley demonstrated that the primary groups were the essential bearers and builders of the social life. They are this because they are the primary socializing agencies. They first stimulate and call forth the social impulses; they first build up habits of coöperation; they first give rise to social or group consciousness. The primary groups are also the chief carriers of social tradition and of social custom, and it is custom and tradition which make *human* social life what it is. Finally, as we have already indicated, the primary groups are the source of primary social ideals. By their very organization and life they have furnished man with cer-

[11] *Ibid.*, Chaps. iv and v.

tain social patterns which he strives to realize, to some extent at least, in wider social relations. It is not too much to say that Professor Cooley demonstrated primary groups to be, if we may coin a word, the "sociophores" of human social life.

SIGNIFICANCE OF INTERCOMMUNICATION

The second important contribution to sociological doctrine in Cooley's *Social Organization* was his emphasis upon the social significance of communication.[12] This naturally sprang out of the stress which he laid upon the study of face-to-face or primary groups. By communication he says he means "the mechanism through which human relations exist and develop." This is a very broad definition, but the context shows that Cooley means relatively definite forms of inter-stimulation and response. He tells us that without communication the mind does not develop a true human nature and we do not get *human* development. In other words, the human nature and character of the individual comes from participation in group life. It is through communication that we learn the social tradition of our group, get our social standards and values, and consequently our social attitudes. It is communication, especially in the form of spoken and written language, which enables us to participate in our group life and ultimately in the life of humanity. "A word," Professor Cooley tells us, "is a vehicle, a boat floating down from the past, laden with the thought of men we never saw; and in coming to understand it we enter not only into the minds of our contemporaries, but into the general mind of humanity continuous through time." [13] The web of intercommuni-

[12] *Ibid.*, Chaps. vi–x.
[13] *Ibid.*, p. 69.

cation, then, according to Cooley, forms the medium for the social or group mind by participating in which we get not only our social values and attitudes, but even our essential human nature. "Communication, including its organization into literature, art, and institutions, is truly the outside or visible structure of thought, as much cause as effect of the inside or conscious life of men. . . . By the aid of this structure the individual is a member not only of a family, a class and a state, but of a larger whole reaching back to prehistoric men whose thought has gone to build it up. In this whole he lives as in an element, drawing from it the materials of his growth and adding to it whatever constructive thought he may express." [14]

It will be noted that Professor Cooley in taking these positions has done much more than make human social life essentially mental. He has in a sense revolutionized the method of the social sciences, especially of sociology, because he has turned attention from the larger aspects of human relations to the minute groups and to individual interactions. To be sure, other sociologists before Cooley attempted to do this, but it can scarcely be said that they definitely succeeded. By fastening the attention of the sociologists upon primary groups and the interactions between individuals Cooley made possible observational and "case study" methods applicable to group behavior. Moreover, in emphasizing the significance of intercommunication for group behavior he indicated a method by which we might study the psychic life of groups even more accurately than we could study the individual mind through introspection. The mechanism of intercommunication he showed to be the essential structure for understanding the higher developments of

[14] *Ibid.*, p. 64.

human social life.[15] He therefore opened a way for the scientific study and understanding of all human culture, and hence of the *distinctively* human aspects of man's social life.

It may be said that Professor Cooley, at least in this book on *Social Organization,* did not work out clearly and definitely these ideas. This is probably true. Other sociologists at the same time were clarifying some of these conceptions. For example, the conception of the "social process," which Professor Cooley fails to clarify in *Social Organization,* though he made it the title of his third book, was being developed at nearly the same time by Professor E. C. Hayes. Professor Hayes used the conception to mean the life of society, the sum total of those interwoven activities, psychic in essence and manifested in speech and conduct, which are impossible to individuals without some measure of group life.[16] The most static custom of a group not only is maintained by intercommunication of its individual members, but is essentially a mode of activity in the group that prevails and continues, and hence is a part of the life-process of the group, or of the "social process." In the same way

[15] Many recent books have followed out this clue. Among those not noticed in the following pages the reader will find very suggestive, Professor Henry Wilkes Wright's *The Moral Standards of Democracy,* 1925. This work is really a psychology of democracy, and contains, as its author acknowledges, "a definite theory of social relations," based largely upon Cooley's theory of social intercommunication. Professor Wright divides personal intercommunication into three forms—discussion, coöperation, and sympathy—and these he holds to be the fundamental forms of human association. He insists that *human* social life has been built up through the exchange of *conscious* experiences, and that, therefore, a purely "objective" or behavioristic method is "inadequate and, beyond a certain point, unilluminating" in the study of human society. See Chapter II of the book.

[16] *Introduction to the Study of Sociology,* Sixth Edition, pp. 303 and 426. See also Professor Hayes' Monograph, "Sociological Construction Lines," in *American Journal of Sociology,* 1904, vol. x. See also his article entitled "Some Social Relations Restated," *ibid.,* vol. xxxi, p. 333, 1925.

changes in the group life are changes in the process of activity due to the conditioning of the social activity of each member of a group by the activity of all other members. Strictly speaking the social process is the activities themselves, while the conditioning, as Professor Hayes says, is a causal relation between them.

The conception of interaction among the individuals of a group as the condition of social or group life is a very old one, and can be found foreshadowed in writers even before Comte's time. Professor Ross helped to develop the idea.[17] Professor Small made it one of the cornerstones of his sociological work,[18] but perhaps Professor Franklin H. Giddings, of Columbia University, was the first to give it definite psychological formulation in terms of mental interstimulation and response. Professor Giddings points out that the method of adjustment in a group of separate individual organisms acting together is necessarily through some form of interstimulation and response.[19] But he rightly insists that before such interstimulation and response can result in coördinated activity there must be a basis of organic and mental similarity. In addition he believes that there must be an awareness of this similarity on the part of the co-acting organisms, or what he calls "consciousness of kind." This consciousness of physical and mental likeness among the individuals of a group mediates their responses to one another and to common stimuli. Professor Giddings believes, therefore, that much can be explained in "pluralistic" or group behavior through these facts of organic and mental similarity and the consciousness of

[17] *Foundations of Sociology*, 1905.
[18] *General Sociology*, 1905, Chaps. i and xxxviii.
[19] *Studies in the Theory of Human Society*, Chap. xv. *Inductive Sociology*, 1901, Part II, Chap. i. Also, *Descriptive and Historical Sociology*, 1906, Part II, Chap. i, espec. pp. 135–179.

kind. He thinks that we do not need to assume instinctive tendencies toward coöperation or even a gregarious instinct. Organic similarity plus the consciousness of that similarity, or the consciousness of identity of the members of a species or of a smaller group, will explain much, if not all, that has been attributed to specific social instincts, such as gregariousness.[20]

It will be noted that according to this view of Professor Giddings, intercommunication between the members of a human group is merely a form of mental interstimulation and response, and rests upon the fundamental organic resemblance or identity of the members of the group and upon their consciousness of their identity. Intercommunication is, therefore, a process of passing along stimuli among a group of fundamentally like-minded individuals. Like-mindedness is the basis of their power of intercommunication and even of their group life. It also becomes the end of all communication or interstimulation and response. Group behavior is, therefore, according to Giddings, essentially "a type-conforming activity."[21] He seems to assume with Cooley that interstimulation and response and the consciousness of kind begin primarily in face-to-face groups, and that gradually with the growth of the means of interstimulation they expand to include larger and larger groups. This growth of interstimulation and response, of the consciousness of kind, of sympathy, of like-mindedness, and of type-conforming behavior, Professor Giddings calls the process of socialization.[22] It is evidently that phase of the social process by which individuals become incorporated in their groups and the groups themselves become better unified.

[20] *Studies in the Theory of Human Society*, Chap. xv.
[21] *Ibid.*, Chap. xii.
[22] *Ibid.*, pp. 287–288.

THE CULTURE CONCEPT

The sociological analysis of group life offered by Professor Cooley and Professor Giddings barely falls short of definitely stating another concept which has been found fundamental for the study and understanding of human society. That is the concept of "culture." By this concept the sociologist understands the tool-making, institution-making and value-making activities of human groups; in other words, civilization in the broad sense of that term. All human groups possess "culture" in that sense, but so far as we know, no animal group. The idea of culture in this sense is implied in what Cooley says about the importance in human social life of the web of intercommunication. He speaks of this web forming a medium in which the individual lives and moves, and from which he receives his essentially human traits of behavior. This medium is precisely "culture," as we have just defined the term. For the vehicle of culture is the system of intercommunication, especially spoken and written language. Culture, in other words, upon analysis consists of ideas, of mental patterns, which are passed along from individual to individual, and which collectively form the tradition and custom of the group.[23] To this group culture all individuals conform their behavior in a general way, though the culture of a given group is manifested differently with individual variations by each of its members. This culture forms then, as Giddings would say, a type-conforming pattern for the behavior of each individual of the group, from which, however, there are more or less individual variations.

The idea of "culture" is the particular contribution

[23] Ellwood, "Mental Patterns in Social Evolution," in *Publications of the American Sociological Society*, 1922, vol. xvii, pp. 88–100.

of the anthropologists, as students of the behavior of primitive human groups, to the science of sociology. Especially deserving of notice in this connection is the work of the American anthropologists, Lowie,[24] Kroeber,[25] Wissler,[26] and A. A. Goldenweiser.[27] Perhaps no students of human social life have done more to define the concept of human culture and to show its importance for understanding human society than the men we have just mentioned, though, of course, the concept of culture was first developed by E. B. Tylor in England,[28] and by other anthropologists on the continent of Europe. Quite naturally this school of cultural anthropologists have tended toward a "cultural determinism" in the explanation of social phenomena. This is especially the case with Lowie and Kroeber.[29] According to them the social is the cultural,[30] and all culture is determined by previous culture. This being so, Doctor Lowie goes so far as to deny the validity of any appeal to individual psychology in the social sciences.[31] According to him, a cultural change, or a change in group behavior among human beings, is always preceded by certain cultural conditions which account for the change, and therefore there is no

[24] *Culture and Ethnology*, 1917.
[25] *Anthropology*, 1923.
[26] *Man and Culture*, 1923.
[27] *Early Civilization*, 1922.
[28] *Primitive Culture*, 1889, 2 vols.
[29] See Kroeber's article on "The Super-organic," in the *American Anthropologist*, April–June, 1917. "The Super-organic" is the term which was used by Herbert Spencer as a designation for the concept of "culture."
[30] This view is endorsed and carried out by Professor C. M. Case in his textbook, *Outlines of Introductory Sociology*. Case follows Kroeber in making the subject-matter of sociology to consist of "culture" or "the super-organic." His method closely follows that of Professor W. I. Thomas.
[31] *Culture and Ethnology*, Chap. i on "Culture and Psychology," especially p. 25.

use of appealing to individual psychological conditions.[32] Doctor Wissler and Doctor Goldenweiser are more cautious, and believe that there is no definite cultural determination in human society, but that individuality and personality must also be taken into account in tracing cultural and social processes.[33] Therefore they would not sever the social sciences from psychology.

This is the position taken by Professor W. I. Thomas and his pupils, and to them much credit is due for securing proper recognition of the cultural factor in the social process. According to Professor Thomas, "The cause of a social or individual phenomenon is never another social or individual phenomenon alone, but always a combination of a social and an individual phenomenon."[34] This common sense methodological principle, the very opposite from Durkheim's assumption, is fundamental, Thomas holds, for both social psychology and sociology, and at once gives a place for both the individual and society in social causation. In his *Source Book for Social Origins* (1909) he shows that culture has been built up through crises, attention, control, and habit formation, but that in the process the exceptional, creative individual has always been an important factor. Culture is therefore a product of the human mind; but once a given level

[32] *Ibid.*, Chap. iv. A very similar position was taken by the eminent French sociologist, Émile Durkheim. In his well known work, *Les règles de la méthode sociologique*, published in 1904, Durkheim sets forth the view that the "social" is something entirely distinct from the biological and psychological, and that, therefore, there is no use of appealing in the social sciences to individual psychological conditions. A "social fact" is always to be explained by an antecedent social fact. The individual mind, according to Durkheim, is practically a product of the social mind. This view of Durkheim has been developed by Professor Levy-Bruhl in his work, *Les Fonctions mentales dans les sociétés inferieures*, published in 1910. According to Levy-Bruhl the mind of the individual is entirely controlled by the "collective representations" of the social milieu.

[33] Wissler, *Man and Culture*, Chap. xii; Goldenweiser, *Early Civilization*, p. 324.

[34] *The Polish Peasant in Europe and America*, 1918, vol. i, p. 44.

ot culture has been reached by a group, it largely determines the habits and intelligence of its individual members, and so the next step in cultural development.

A pupil of Thomas, Professor Florian Znaniecki, of the University of Poznan, Poland, has particularly developed and carried out these methodological principles not only in the fields of sociology and psychology, but even in the field of general philosophy. In his book, *Cultural Reality* (1919), Znaniecki points out that the only theory of the human mind based upon empirical data which we have is that which makes it a product of culture. Even "nature" is perceived by man only through the prism of culture, and is acted upon by man usually only in culturally determined ways. Our whole world, Znaniecki insists, is permeated by culture, and we can no more imagine the world of our prehuman ancestors than we can the fourth dimension. Hence "culturalism," or historical relativism, should take the place of both naturalism and idealism as the philosophical basis of science. While Znaniecki closely approaches, if he does not accept, cultural determinism in the book just mentioned; yet in his *Laws of Social Psychology* (1925) he shows that there are certain laws of social interaction between individuals which are universal, and are therefore independent of culture.[35] His position would seem to be that there are certain laws of human social behavior which are universal and within which the cultural process goes on. The cultural process accordingly is not the whole of the social process.

The revolutionary importance of "the culture concept" for the understanding of human social phenomena is not yet admitted and recognized by all sociologists.

[35] This is a work in social psychology in the strict sense. The ambiguity of this term is the source of much confusion in the social sciences. It is frequently used to mean any psychological study of institutions or of group behavior, and so as synonymous with sociology.

Especially have certain social psychologists been slow to recognize the importance of this concept, because in the form in which it has been presented, at least by Lowie and Kroeber, it seems to deny the importance of the individual as originating and carrying through social changes. This, however, is not the case if we accept the concept as presented by Thomas, Wissler and Goldenweiser. They show conclusively that man as an adult member of a human group is always a cultural being in his behavior; and that that behavior and the behavior of the group, even though it is rooted in human instincts and in the environmental situation, cannot be understood except as an historical or cultural product. In other words, these men have insisted that the patterns of individual and of group behavior are cultural patterns, and as such cannot be understood without an understanding of their historical antecedents. The human mind and the behavior of the individual as we know it, in other words, is even more an historical product than a product of organic evolution.

This position is, of course, in accord with Cooley's view that human nature is group nature, or a phase of the group mind. This latter expression, by the way, becomes immediately understandable as soon as we substitute for it the word "culture." What sociologists have called the group mind, or the social mind, is manifestly the culture of the group seen from its mental side in any given situation. We know of no such group mind, or social mind, below the human level. *The group mind is the mental side of the group's culture,* just as so-called human nature is the individual side of the more fundamental and universal aspects of culture. In other words, *all distinctively human* traits of behavior are *cultural,* and hence to understand them we must understand the culture of the group in which they occur. This is not to deny

that there is an animal nature of man, as Professor Cooley himself admits;[86] but this is not what is ordinarily meant by "human nature," nor is this animal nature observable in the ordinary behavior of the adult human individual.

If culture is the determining thing in ordinary human behavior and if culture is made up of acquired habits transmitted from individual to individual by a learning process, then it follows that the mechanism of organic evolution—variation, heredity, and natural selection—cannot have much to do with human society or social evolution. The anthropologists have perhaps more than any other class of recent social thinkers combatted the idea that the social process is a continuation of the process of organic evolution. They have, indeed, gone so far as to deny that organic evolution has any influence on human social evolution. However this position is probably extreme. Professor A. G. Keller, of Yale University, in his book, *Societal Evolution*, proceeding very largely from anthropological data, has put forth the theory that the evolution of human societies proceeds by essentially the same method as organic evolution. Professor Keller does not deny that the method of adaptation in human society is mental,[87] but he finds that adaptation must be made to the material facts of life, that some of these adaptations are unfavorable variations, hence will not work and are eliminated; that others are favorable to survival, are transmitted from generation to generation as the customs or the "mores" of the group, and that thus the fabric of culture or civilization is built up. In other words, Professor Keller finds that the social process is strictly analogous to the process of organic

[86] *Social Organisation*, pp. 28–30.

[87] "Human adjustment is *mental* rather than physical, and the adaptations by which men live are products of the mind rather than bodily modifications" (Keller, *Starting Points in Social Science*, p. 84).

evolution, in that it has in it elements of variation, transmission, and selection, just as the organic process has.[88] Moreover, according to Professor Keller, this process goes on automatically and with little chance of human control, except as rational selection happens to coincide with the favorable adaptation which would in any event be automatically selected by the natural process of social evolution.[89] Thus Professor Keller's work is continuous with that of Darwin and Spencer and of his own teacher, Professor Sumner. If the anthropologists go too far in excluding any connection of organic evolution with social evolution, it is certain that Professor Keller goes equally far in the opposite direction in contending for such a close connection, or at least analogy, between the two processes.

THE INSTINCTIVE ELEMENT

In a very different form the same problem has come to the surface of recent years in the controversy among social psychologists and sociologists as to the part which "instinct" plays in the social behavior of man. No sociologist or social psychologist of standing has gone so far as the crude biological or racial theory sometimes met in popular literature that the culture and the behavior of a human group is exactly like a spider's web—a structure whose pattern is inherited in the nervous systems of the individuals producing it. No sociologist or social psychologist holds such a crude biological theory of human behavior. Several social psychologists, however, would make instinct account for the most characteristic features of human behavior, and so of man's social life. Among

[88] *Societal Evolution*, 1915, introduction and p. 326.

[89] "The operation of the big, impersonal, automatically working forces always gets truer results than do the feeble powers of the human mind" (Keller, "Societal Evolution," *The Evolution of Man*, 1922, Chap. v, p. 147).

the extremists we must place Trotter, who would account for the most striking characteristics of the social behavior of man upon the basis of the gregarious instinct.[40] Here we must put also writers like the late Carlton Parker, who would apparently account for the most striking features of modern industrial life and organization upon the basis of certain definite human instincts.[41] More moderate, though still throwing much weight upon instinct, are psychologists like McDougall and sociological and economic writers like Veblen. McDougall would make the instincts the sole sources of human motives,[42] the sole springs of action, and Veblen endorses this view.[43] According to this view, man's instinctive tendencies must remain the chief explanation of his behavior. The form of the behavior may be changed by circumstances in the environment or by the intelligent perception of means. But the end of the behavior remains the satisfaction of some instinctive impulse. These writers deny that any other end or motive for human behavior can possibly exist than that furnished by the original urges of organic life.

It is not clear whether man's social life differs from that of the brutes on account of differences of instinct or not, according to this theory. It would seem however that according to this theory the differences between the social life of man and of the brutes must be explained mainly upon the basis of differences of instinct. This Veblen has apparently undertaken to do in his theory as to the working of the "instinct of workmanship" in human society. Apparently Veblen argues that it is this instinct

[40] *Instincts of the Herd in Peace and War*, 1916, espec. pp. 1–65.

[41] See his paper "Motives in Economic Life," in *American Economic Review*, 1918, vol. viii, pp. 212–223. Also his book, *The Casual Laborer*, Chaps. ii, iii. Compare also Edie, *Principles of the New Economics*, Chap. ii.

[42] *Introduction to Social Psychology*, 1908, Chap. ii.

[43] *The Instinct of Workmanship*, 1914, Chap. i, especially p. 6.

which has led man to tool-making and to the production of culture generally. Other writers, while making instincts the sole sources of human motives, the sole springs of action, would emphasize no distinctive differences in the instinctive equipment of man and the brutes, but would find in man's intelligence and social environment a reason for fundamental instincts expressing themselves differently in the human and in the animal world, and in high civilization and in lower culture. Fundamentally, however, according to all these writers, man remains motivated by hereditary or inborn impulses, essentially not different from the instincts shown in the world of animal life below him.

The obvious hereditary or biological determinism implied in such a doctrine of instincts has led to a reaction to the other extreme. Among the psychologists has sprung up an institutional school of behaviorists who would explain man's behavior almost entirely through "institutional" stimuli.[44] By "institutional stimuli" these psychologists apparently mean practically the same as the anthropologists mean by "culture." Apparently these two schools of thought have reached a common conclusion, though approaching the question from different sides. However, as we shall see, the conception of the adult human individual as a cultural being and of culture as the main element in determining his behavior, by no means precludes the recognition of instinctive impulses as furnishing, to some extent, a ground pattern for that behavior and persistent motives which run through the whole fabric of culture itself. We shall return to this point in a minute.

As illustrating the extreme of opposition among psy-

[44] Compare Kantor, "The Institutional Foundation of a Scientific Social Psychology," in *American Journal of Sociology*, 1924, vol. xxix, pp. 674–687.

chologists to the use of instinct to explain any part of human behavior, we might instance Professor Josey. Josey denies any scientific validity to the concept of instinct. He claims that it is "a metaphysical concept," and not within the limits of science. Even the behavior of animals should not be interpreted in terms of such a concept. The behavior of living organisms is to be explained in terms of the situation in which they are.[45] Josey will not even admit that the sexual instinct can be used to explain sexual behavior or relations among human beings. The clear logic of his position is to deny any determining influence to hereditary factors in behavior. Behavior with him is simply a function of the environment.

Typical among the sociologists who take a somewhat similar view is the work of Professor L. L. Bernard. Professor Bernard, however, would not do away altogether with the conception of instinct.[46] He finds it, indeed, a necessary conception,[47] but holds that what we call manifestations of instinct in adult life are really complexes of habits and values, and so come from social patterns. Practically, therefore, he would not make use of instincts in explaining social behavior or social phenomena. He would explain social behavior mainly through the conditions in the social environment, keeping instinct simply for the biological background upon which habit complexes are built up. Moreover, Bernard believes that we must hold to the neural structure theory of instincts, and consequently, as the hereditary neural structure of man is very complex, there are an indefinite

[45] *The Social Philosophy of Instinct*, 1922.

[46] See his paper "Neuro-psychic Technique," in *Psychological Review*, 1923, vol. xxx, pp. 407–437. Compare also his paper, "The Misuse of Instinct in the Social Sciences" in the same journal, 1921, vol. xxviii, pp. 96–119, and his recent book, *Instinct, A Study in Social Psychology*, Chaps. ii–v and xx.

[47] *American Journal of Sociology*, 1924, vol. xxix, p. 673.

number of instincts, none of which function until combined in certain complexes through experience. As the nature of the combination will be determined by experience, it is experience and habit, not instinct, which must be used to explain the social behavior of adult individuals and of groups.[48] The biological element in human behavior represented by instinct, is, therefore, the last thing to be appealed to in social explanation.

The recognition of hereditary reaction, or instinct, as one of the elements of human behavior is, as we have said, by no means necessarily inconsistent with the full recognition of the importance of culture. This is shown by the position of Wissler. Wissler holds that there is an instinctive or hereditary "drive" to produce culture in man, and not only to produce culture, but to produce a "universal pattern" for culture. Wissler puts forth the theory that the culture of all human groups has a fundamental pattern which is the same for all.[49] This pattern corresponds to the essential constitution of the original nature of man, and hence, according to Wissler, seems to be as fixed for man as the general pattern of a spider's web is for a given species of spider. While Wissler holds that culture has been built up by a learning process, the learning process itself is nothing but a conditioning of original instinctive responses. Hence he outlines a universal pattern for all forms of human culture which includes material traits, war, family life, art, mythology, religion, property, and government.

One is suspicious of this outline of the universal pattern for all culture, however, because it includes war

[48] "Neuro-psychic Technique," especially pp. 409–422. The same fundamental ideas are elaborated in Professor Bernard's book, *Instinct, A Study in Social Psychology*, 1924, which was published after the above was written.

[49] *Man and Culture*, 1923, Chaps. v and xii. For statement of the psychological doctrine of an inherited drive, see Woodworth, *Dynamic Psychology*, pp. 36–43 and Chap. iii.

as one of its necessary elements, and classifies science in the same category as mythology. It may be, and it would seem reasonable to believe, that the biological constitution of man necessitates similarities in all human cultures. However, this is quite a different thing from the scheme which Doctor Wissler presents. An eminent British anthropologist finds that war is not a necessary element in the pattern of all cultures; that on the contrary, it is a relatively late and intrusive element;[50] and the implication is that new elements can and do come into the culture of peoples which were not indicated in the original pattern of culture to begin with. In other words, the social life of man is an expanding, creative process, the full outline of which is by no means visible from a study of original human instincts.

The controversy regarding the instinctive element in human behavior naturally has had much bearing upon practical social policies. Those who hold that the instinctive element in the social behavior of man is dominant quite naturally incline to the view that social organization and civilization should be so developed as to harmonize with man's natural or instinctive impulses. This, they say, present social organization and civilization do not do. This position is especially that of the Freudians, though it is a much older doctrine, and, indeed, is to be found already quite fully developed in the writings of Rousseau. Perhaps no one has held a juster balance in this controversy than Professor W. F. Ogburn in his work on *Social Change*.[51] Professor Ogburn holds that modern civilization, on account of its mechanical industry and many other artificial conditions which it imposes upon the individual, is out of harmony with man's natural instincts. Like Doctor Wissler, Professor

[50] Perry, *The Growth of Civilisation*, Chaps. vii and x.
[51] Published 1922.

Ogburn does not find the concept of instinct as a factor in human behavior inconsistent with full recognition of the importance of culture. Culture controls the medium through which the instinctive impulses of man get expression. It may direct them wisely, or it may repress them needlessly. Ogburn is confident that our present civilization needlessly represses and "balks" man's original impulses. This produces needlessly a large amount of discontent and unhappiness. Professor Ogburn is not so confident that an easy adjustment can be made between man's original nature and the conditions of modern civilization. He believes, however, that much might be done in the training of original nature, and also that we could do much to make social conditions less repressive of harmless natural impulses than they now are. While we cannot return to the conditions of primitive life, we can furnish outlets to man's natural impulses which will be at the same time advantageous for both society and individual life.[52] It is evident that Ogburn holds a midway position between those who would give predominant importance to human instincts in social life and those who would consider them of no importance whatsoever. Somewhat similar positions are taken by Professor R. H. Gault in his text on *Social Psychology* (1923), by Professor J. M. Williams in his *Principles of Social Psychology* (1922) and by the eminent British sociologist and political scientist, Professor Graham Wallas,[53] although in his first sociological treatise he tended to give a predominant rôle to human instincts.[54]

Controversy regarding the importance of the instinctive element in human behavior has undoubtedly served to obscure other elements in the social life than heredity and

[52] *Social Change*, especially Parts II, IV and V.
[53] *The Great Society*, 1914, especially pp. 64–68, 172–175.
[54] *Human Nature in Politics*, 1908.

physical environment. The tendency has been to throw the emphasis either upon the instinctive, hereditary element, or upon the element of acquired habit. But the social life of man is undoubtedly a complex of many elements, and not simply of these two. The hereditary or instinctive elements must be assumed as a basis, if any connection is to be allowed between modern biological and sociological theory. It can hardly be said that the concept of an hereditary or instinctive element at work in human behavior is more metaphysical or speculative in the case of sociology than in the case of biology. Some place must be found for it by all who accept the unity of science. Admittedly, however, it is the primitive and original element in human behavior which man shares with the brutes. It therefore cannot account for the distinctively human traits of his behavior. Neither can habit as habit satisfactorily account for those traits. To those who have a practical interest in the intelligent control of human life, there would seem to be little advantage of exchanging the tyranny of heredity, or of instinct, for the tyranny of habit, or environment. Even if we accept modern biology to the full, it does not justify us in accepting any such dilemma. Some view of the factors in human behavior must be possible, therefore, which will do full justice to the hereditary or instinctive elements and yet leave sufficient place for the action of habit and intelligence, of environment and individual creativeness.

An approach to this more constructive view is undoubtedly to be found in Professor Dewey's *Human Nature and Conduct*.[55] Dewey still rings the changes on impulse—a term which he prefers to "instinct" on account of the frequent misunderstanding of the latter term [56]—and habit; but he emphasizes habit at the

[55] Published 1922.
[56] *Op. cit.*, p. 105.

expense of the hereditary element. This he does because he finds that habits, or customs, are more significant in explaining social behavior, whether of individuals or of groups.[57] While Dewey holds to the view that man's impulses are a part of his hereditary equipment, they are very variable and plastic, and therefore their expression will be determined by custom. Practically, therefore, habit or custom is the important element in social psychology and sociology. Curiously enough, however, Dewey would apparently rely upon the power of native impulses to break up the sway of custom, and therefore he sees in them the means of progress.[58] It is in the conflict of impulses and in the conflict of native impulses with habits that intelligence has its chance. Professor Dewey does not make use of the term culture in the ethnological sense, but with him "custom" becomes practically synonymous with "culture."

An even better synthesis, from a strictly scientific standpoint, is to be found in Professor Albert G. A. Balz's work, *The Basis of Social Theory*.[59] Professor Balz accepts fully the results of modern biology, and he is also familiar with the field of the social sciences. He recognizes, therefore, that "the conclusion that all processes have an organic basis, and therefore an inherited basis can hardly be avoided."[60] Therefore, inherited reaction tendencies must be taken into account in any scientific explanation of human behavior, whether it is individual or collective. He recognizes that beside the inherited tendencies to action there are the inherited capacities, which are scarcely less significant for the understanding of behavior.[61] However, in order to

[57] *Ibid.*, Part I, also Part II, Section III.
[58] *Ibid.*, pp. 93, 95, 101.
[59] Published 1924.
[60] *Op. cit.*, p. 108.
[61] *Ibid.*, Chap. v.

simplify his problem he resorts to the device of Professor Graham Wallas of projecting all inherited tendencies and capacities on the same "terminological plane." [62] For some purposes this device may work well, but there are obviously great differences between inherited movement complexes and inherited capacities to feel and to think. In general, such a device in sociological reasoning serves only to obscure the problem of the real nature of social control and so of social progress. It still gives too much opportunity to view the social process from the standpoint of hereditary determinism. Professor Balz escapes this danger by emphasizing the variability of the individual and the value of the variant individual.[63] It would seem, however, that the better procedure would be to recognize the fact that man's instinctive tendencies or animal impulses only start him on the pathway of his social and cultural evolution; that instead of following the pathway of instinct or of animal impulse he has succeeded in becoming human and in developing a culture to the extent that he has followed the divergent pathway of intelligence; that through the use of intelligence he has been making new action patterns other than those inherited in his nervous system, and in this way has been remaking himself and his world. This is substantially the line of argument followed out in the constructive discussion of instinct and intelligence in the work of Professor W. E. Hocking, *Human Nature and its Remaking.*[64]

SOCIAL FORCES

In all of this controversy concerning the place of instinct the old discussion concerning the nature of "social forces" has tended from time to time to emerge. Psychologists like Professor Knight Dunlap have pro-

[62] *Ibid.*, pp. 173–179.
[63] *Ibid.*, pp. 237 f.
[64] Published 1918.

posed that the "desires" be taken as the "social forces," [65] or ultimate terms of social explanation, as nineteenth century economists and sociologists did do as a matter of fact.[66] The Freudian psychologists also have proposed to substitute the term "wish" for the term "desire." [67] This reversion to a former terminology has accomplished thus far little or nothing, if we can judge by the published results of those who use it. Professor Dunlap's book, *Social Psychology*,[68] for example, hardly gets as far into the problems of the social life as did some books of the nineteenth century. He scarcely recognizes the importance of culture and of the cultural process in human society. Instead, he falls back upon a reëmphasis of the importance of the biological factor. In his discussion of the conditions of social progress, for example, he gets no further than to emphasize the importance of a eugenics program; while in his discussion of social organization he deals merely in the commonplaces of communication, social imitation, and social attitudes. It is not his use of the term "desires," however, which renders his method sterile, but rather his lack of knowledge of the field which he discusses.

As Professor Bernard has pointed out, little is to be gained by this substitution of one term for another.[69] While "desires" and "wishes" may be regarded as complexes of native impulses with experience, still practically they are used by the writers who employ them in the same way that "instincts" are used by the "instinct

[65] "The Foundations of Social Psychology," *Psychological Review*, March, 1923.

[66] Professor Bushee also in his *Principles of Sociology*, 1923, uses this term "desires" to designate "the social forces."

[67] Thomas also (*The Polish Peasant*, vol. i, p. 23) employs the term "wish," though using it as synonymous with "desire."

[68] Published 1925.

[69] *American Journal of Sociology*, vol. xxix, p. 67.

school." They have the advantage, however, of indicating some element of experience. But they certainly are not ultimate terms of social explanation. On the contrary, all studies of the wishes and desires of adults clearly indicate that these are more or less products of social life.

Moreover, as Professor E. C. Hayes has shown, in an earlier paper,[70] the term "social forces" is a term of doubtful expediency in the social sciences. Professor Hayes showed that no appeal was made any longer to special forces in the physical sciences, but that these sciences without assuming any knowledge of ultimate causation find all their explanations in the conditioning of phenomena by each other. In the same spirit Professor Dewey has recently said:[71] "Science and invention did not get on as long as men indulged in the notion of special forces to account for phenomena. . . . Advance in insight and control came only when the mind turned squarely around. After it had dawned on inquirers that their alleged causal forces were only names which condensed into a duplicate form a variety of complex occurrences, they set about breaking up phenomena into minute detail and searching for correlations, that is, for elements in other gross phenomena which also varied. Correspondence of variations of elements took the place of large and imposing forces." Accordingly, scientific procedure in the social sciences should be similar. It will consist in pointing out the coexistences and sequences of various elements, and how their variation gives rise to certain phenomena. However, it is convenient to distinguish between the relatively active and relatively passive factors in a given social situation, or as some

[70] "The Social Forces Error," *American Journal of Sociology*, vol. xlv, pp. 613–625.

[71] *Human Nature and Conduct*, pp. 149, 150.

would say, the causal and conditioning phenomena. The former might perhaps be called "social forces" without serious danger of misunderstanding.

THE INDIVIDUAL AND THE GROUP ARE EQUALLY REAL

Another question which has emerged in this controversy is the question of the reality or causal efficiency of the individual and of the group. The majority of present day sociologists recognize that both the individual and the group are equally real and therefore equally causally efficient. However, a few sociologists and social psychologists lean to the view that the group life alone is causally efficient, a theory which is known as "social determinism." According to this view the individual is purely a social product, and all of his behavior is to be explained through social environment. This view has been championed, as we have already noted, by Professors Kroeber and Lowie in cultural anthropology. On the other hand, Professor F. H. Allport and a number of other social psychologists have held that the individual alone is real and alone is causally efficient.[72] What is called the group, or society, according to this view, is merely a complex of the interactions of individuals. In order to explain any social phenomenon, therefore, we must explain it in terms of the psychology of the individual. Professor Ellsworth Faris, on the other hand, points out that practically everything about the psychology of the individual must be explained in terms of the social process.[73] Such diametrically opposite views suggest, as was said at the beginning of the paragraph, that both are extreme. It is probably true, so far as can

[72] See Allport's paper, "The Group Fallacy in Relation to Social Science," in *American Journal of Sociology*, 1924, vol. xxix, pp. 688–703. Also, *The Journal of Abnormal Psychology and Social Psychology*, vol. xix, pp. 185–191. Also his *Social Psychology*, pp. 4, 9, 382.

[73] "Ethnological Light on Psychological Problems," in *Publications of American Sociological Society*, vol. xvi, pp. 113–120.

yet be discovered, that the individual variations in behavior initiate all social changes. These variations in individual behavior, however, are themselves frequently expressions of changed conditions in the social environment. In the social life causation undoubtedly moves in circles.[74] The circular type of response is the normal social type. The individualistic view of certain psychologists is quite as unwarranted as the extreme collectivistic view of certain social thinkers.

RELATION OF CONFLICT AND COÖPERATION

The development of social psychology has also brought to the front again the old question of the relation of conflict and coöperation in the social process. The view of the nineteenth century, and of the first decade of the twentieth century, was that conflict was at least a normal, if not the primordial, phase of the social process. English speaking sociologists have always been held more or less by the view of Hobbes that the primitive state was one of hostile conflict. From this primitive state of conflict the present state of society has arisen very largely through the progressive struggle and selection of groups and their interests. This was the view of Gumplowicz[75] and Ratzenhofer,[76] and it was apparently endorsed by Professor Small.[77] In other words, nineteenth century sociology was more or less permeated by a hyper-Darwinian biology. Even the most valuable recent study of social conflict, that by Professor J. M. Williams in his *Principles of Social Psychology*,[78] apparently accepts the

[74] See again the reconciliation suggested by Thomas, *The Polish Peasant*, vol. i, p. 44.

[75] *Der Rassenkampf*, 1883; *Outlines of Sociology*, 1885.

[76] *Die Sociologische Erkentuiss*, 1898; *Sociologie*, 1907.

[77] *General Sociology*, Part IV.

[78] Published 1922. Professor Williams, however, would make the cultivation of sympathy and coöperation the way out of conflict and the basis of a better society.

same view of human relations, and with Hobbes holds that the instinctive rivalry of men for wealth, power, and glory is the source of the unending, though perhaps not inevitable, conflicts in human society.

Of course, much will depend on the connotation given to such a term as "conflict." According to Professor Giddings, all forms of social interaction are forms of conflict.[79] Discussion, for example, is a form of conflict. Such a broad definition obviously makes it impossible to escape from a conflict view of human relations. This conflict view, as we may remark again, permeated all nineteenth-century thought and was responsible for some of its most misleading doctrines, such as the class struggle theory of human history and the various forms of Social Darwinism. Giddings points the way out by discriminating between "primary" and "secondary" forms of conflict. Primary forms of conflict are those forms where there is hostility between individuals or groups. They lead to antagonism, and conflict in the popular sense of the word. We shall use the word wholly in this sense. In this sense of "hostile conflict," it is beginning to be perceived that conflict is a relatively abnormal element within groups which have been once unified. *Conflict in this sense is a process of dissociation,* and marks a failure in the normal process of adjustment between the members of groups. According to this view, coöperation is the building principle of group life, and is therefore the normal aspect of group life. This view has been upheld by Professor E. A. Ross,[80] as well as by the writer.[81] It is strongly supported by certain leading biological thinkers of the day, who no

[79] *Descriptive and Historical Sociology,* p. 161.

[80] *Publications of American Sociological Society,* 1919, vol. xiv, p. 133.

[81] *Introduction to Social Psychology,* pp. 89-91; *Christianity and Social Science,* Chap. iv.

longer find in conflict an adequate principle to explain life-processes, but find it rather in coöperation. According to these biologists conflict is an incident in the development of life, and not its normal aspect. This view, however, has found but slow acceptance among sociologists generally. The tendency still is to look upon conflict, even within the group, as a normal part of the process of adjustment, and not as a mere negative element in association. Even those writers who regard conflict as a normal part of the social process are, however, beginning to qualify their statements. Thus Lindeman, who looks upon conflict as something more than an element of dissociation within the group, finds himself forced to say,[82] "Whether or not conflict or a negative element is essential to life, no thinking person can be so obtuse as to fail to see that conflict is wasteful and brutal; the harmonies which it is supposed to establish are palpably not real harmonies at all." Lindeman undoubtedly uses conflict here in the only sense in which I think it should be used in sociological discussions, meaning, namely, "hostile conflict."

CONCEPTS OF SOCIOLOGY

It might seem that out of all of this sociological controversy, little is emerging of real value; but this would be a mistaken view. The concepts of sociology and its concrete problems are gradually being determined. It is evident, for example, that since Cooley's work a series of fundamental sociological categories are gradually being settled upon by modern sociological thinkers. In the first place there is the category of the "group." It is a concrete group, rather than the abstract "society," which is the primary datum of present day sociological

[82] *Social Discovery*, 1924, p. 150.

thinkers.[83] But groups are of many sorts. Professor Cooley's work made it plain that the sociologist and social psychologist must start with the face-to-face, or "primary" group. This group can be observed. The social process, that is, the process of interaction or of interadjustment among its members, can be studied concretely. In a word, a "case study" can be made of such a group, and dogmatic theorizing is brought up against observable facts. Coöperation and conflict, as different aspects of the process of social adjustment, can be observed and studied in the concrete. The social process when thus concretely studied is found to be largely a process of the exchange of experiences,[84] of intercommunication between the individuals of a group. Through this form of interstimulation and response, individuals are enabled to get common meanings, common values, and common attitudes. Thus "intercommunication," "social values," and "social attitudes" become three additional fundamental categories for the study of group life.

But the social values and social attitudes acquired by the members of a group through the process of intercommunication make the "culture" of the group. Here is another fundamental category which for human groups is scarcely less important than "intercommunication." Indeed, it is the power of intercommunication, not less than man's power of abstraction, or of forming "mental

[83] See Professor Bodenhafer's monograph, "The Comparative Rôle of the Group Concept in Ward's Dynamic Sociology and Contemporary American Sociology," in *American Journal of Sociology*, vol. xxvi, pp. 273–314; 425–474; 588–600; 716–743. Psychologists and others outside of the group of professional sociologists often say that sociology must, or should, start with the "institution." But sociologists find that they cannot start with the institution; that institutions are not society, and do not make society, but are products of social life.

[84] Compare Novicow's "Mechanism and Limits of Human Association" (*American Journal of Sociology*, vol. xxxiii), which makes "exchange" the fundamental phenomenon of the social life.

patterns" to guide his conduct, which makes "culture" possible. Culture is nothing more than a series of mental patterns passed along from individual to individual in a group by means of the process of intercommunication. So far as these patterns are passed along as ideas, standards, or values, we call them "tradition." So far as they are passed along as objective actions, we call them "custom." The best sociological usage adheres to the distinction made by Professor Ross between these terms; namely, that tradition is a way of *thinking* and *feeling* handed down from the past, while custom is a way of *action* handed down from the past.[85]

Here we have two further fundamental sociological categories of the greatest importance, for the understanding of all human groups. Indeed, the tradition and custom of a group together make its "culture." It will be seen that both of these, and so, also, culture, are *acquired* by the individual. Therefore the present writer has added another fundamental concept or category, that of the "learning process."[86] So far as we know, all culture is acquired by the individual through the learning process, even though it amounts to nothing more than the language of his group.

Thus the sociology of human groups becomes mainly a study of the culture, the social values, the social attitudes, the traditions, and the customs of groups.[87] This does not preclude all consideration of the effects of

[85] Lindeman fails to observe this distinction (*Social Discovery*, p. 237), which seems to the writer a mistake.

[86] This was first proposed by the writer in an article in *The Scientific Monthly*, for November, 1917, on "The Educational Theory of Social Progress," p. 442, and restated in an article on "The Educative Nature of the Social Process," *Teachers College Record*, May, 1921.

[87] By a strange misunderstanding Lindeman makes the writer (*op. cit.*, p. 163) stand for an altogether different type of sociology.

instincts or biological heredity in human groups. For all that we know goes to confirm the conclusion that instinct or heredity produces biases in certain directions which make it possible for human groups to acquire some social values and attitudes, some forms of culture, easier than others. In other words the biological element in the study of group behavior will lie in the background, but will be recognized as a fundamental condition which must be analyzed and explored just as much as any other conditioning element in the group life.

Using these fundamental categories, the problems of group life become subject to scientific analysis and explanation. Thus the unity of the group can be explained in terms of the process of interaction and co-adaptation between its members, conditioned, of course, by their fundamental biological similarity and by their consciousness of identity. The continuity of the group, again, can be explained in terms of the process of intercommunication between its members and the resulting growth of tradition and custom. The changes within the group can be explained by this same process of intercommunication, functioning with reference to new situations, so that by a learning process new values and attitudes become diffused throughout all members of the group. The process of intercommunication thus functions within the group much as purely psychic processes function within the individual organism. The process of intercommunication, in other words, is the organ by which a group of individuals makes common adjustments and carries on a progressive adaptation to life conditions. So far as harmonious adjustments are achieved among the members of a group we have the condition which is known as "social order." So far as the group achieves by the process of change superior adjustments increasing

group efficiency and group harmony, we have what is known as "social progress." [88]

This outlines, in a very brief way, the main trend in the sociology of the present day. No writer has as yet presented this view systematically and with the elaboration which is needed to give an adequate scientific view of human social life. The writer of this chapter attempted it in his *Introduction to Social Psychology* and has attempted to present it with greater clearness and definiteness in his last textbook, *The Psychology of Human Society*,[89] which is designed to be an introduction to sociological theory. Miss Mary P. Follett, in her work on *The New State* has shown how this social process must be regarded from the standpoint of group functioning, and has illustrated its workings especially well in the neighborhood group.[90] Professor L. T. Hobhouse has especially developed the study of the social process on the side of tradition and custom. In his latest book on *Social Development* he attempts a synthetic view of the evolution of human communities in terms of the development of mind;[91] but he fails to make use of the category of culture, and while his point of view is sound, his presentation of the actual process of social development is a mere outline. Professors Park and Burgess in their *Introduction to the Science of Sociology*, following Professor Thomas,[92] have studied the social process from the standpoint of social values and social attitudes, social habits and social control. They recognize that these arise largely within the process of culture, and therefore, they approach a synthesis, both on the side of functioning

[88] See the writer's *Introduction to Social Psychology*, 1917, Chaps. iv-vii and xii, xiii.

[89] Published by D. Appleton & Company, 1925.

[90] Published 1918.

[91] Published 1924.

[92] *The Polish Peasant in Europe and America*, Methodological Note, 1918, vol. i.

and development of individual and group behavior. Professor E. S. Bogardus, in his latest book, *The Fundamentals of Social Psychology*,[93] also follows Thomas, and lays emphasis upon the spread of social attitudes and values through social inter-stimulation. He defines social psychology as the science which "treats of the processes of inter-social stimulation and their products in the form of social attitudes and values." He outlines comprehensively the whole field of sociological and social-psychological problems. The book is valuable as a text, but it is only fair to say that for the most part it states problems rather than solves them.

BIOLOGICAL AND SCIENTIFIC ASPECTS

While progress is thus being made on the psychological side of sociology, and a trend toward agreement among leading sociological thinkers is discernible, progress is also being made on the biological side. This aspect of sociology is older and therefore perhaps better developed than the psychological aspect. It has always been a favorite diversion, as we have seen, for students of biology to carry their generalizations over to human society. While they have often done so uncritically, careful work on the biological side of sociology has been increasingly in evidence in recent years. As an instance we might mention Professor S. J. Holmes' work on *The Trend of the Race*,[94] or the sociological works of Professor E. G. Conklin.[95] Professor F. A. Bushee's *Principles of Sociology* is undoubtedly, however, the best sociological work emphasizing the biological side which has recently been produced by a professional sociologist.[96]

[93] Published 1924.
[94] Published 1921. See also his *Studies in Evolution and Eugenics*, published 1923.
[95] *Heredity and Environment in the Development of Men*, 1915.
[96] Published 1923.

Professor Bushee's careful study of the effects of the increase of numbers, of heredity, of selection, of sex, and of original individual differences, upon human social life has made it evident once more that these biological factors cannot be left out of account in any scientific study of human groups. They form a background for the social process which must be continually brought into view if one is to study group behavior scientifically. Here should be mentioned, also, the work of Professor E. B. Reuter, in his study of *Population Problems*.[97] The whole theory of population and of individual and racial differences has been reëxamined by him in such a way as to make it easy to correlate this biological side of sociology with the psychological theory of group behavior. Professor Reuter shows that the term "race" cannot be used, as it frequently is used, to explain culture and group behavior. Like instinct, racial heredity must be kept in the background in explaining social and cultural conditions. Professor Reuter's work along with the work of such biologists as Thomson, Patten, and Conklin, gives assurance that the biological side of social theory will soon be brought into harmony with the psychological facts and principles of group behavior which are being rapidly uncovered by the social psychologists and psychological sociologists.

Many sociologists who have approached sociology from the standpoint of some particular science have developed, as we have seen, particularistic or unilateral views of the social life. Sociology and all the social sciences, including history, have been cumbered in their development by numerous one-sided "determinisms." Thus we find among social thinkers of the nineteenth century numerous economic, geographical, biological, and ideological determinists. These one-sided social phil-

[97] Published 1923.

osophies have usually had a vogue similar to the vogue of fashions. They have been the more dangerous because upon them have been built social philosophies, such as militarism, racialism, and economic determinism. It is well known that each of these social philosophies has been the foundation for social movements, sometimes of a very dangerous and threatening character. Scientific study of human history and of social causation has discredited practically all of these one-sided philosophies. As Professor Hayes and many others have pointed out, social causation is very complex. Social activities condition each other far more than they are conditioned either by original human nature or by the physical environment. Original human nature, or purely psycho-physical conditions, must be taken into account. The conditions in the physical environment, or geographical conditions, obviously limit human activity and furnish it the materials with which it must work. Again, after human activity has transformed the material environment into certain economic or technological conditions, these also must be taken into account. There is continual action and reaction between all these elements, as well as between the individual and the group, between personality and group culture.[98]

The modern sociological theory of social evolution and progress has been presented by Professor A. J. Todd in his *Theories of Social Progress*.[99] Todd shows about how much of scientific truth inheres in the various one-sided views of human progress. He rightly throws the emphasis, however, upon the psychological factors involved in progress. In other words, he in effect agrees that social progress is "a learning process," and that therefore the key to a progress that is scientifically planned must

[98] Hayes, *Introduction to the Study of Sociology*, especially Chap. ii.
[99] Published 1918.

be in a process of social education—a truth which Lester F. Ward had emphasized long before recent developments in sociology began. Professor Cooley has also shown the need of escaping from all particularism in sociological thinking, and of an organic, synthetic view of the social life.[100] Like Todd, while not ignoring the importance of changes of material environment, he would throw the emphasis upon the educative process as a means of rational progress. This view has also been emphasized by Professor Ross, Professor Hobhouse, Professor Hayes, the writer of this paper, and a majority of recent scientific students of society.

COMPOSITE SCIENTIFIC METHOD

In harmony with this tendency to overcome particularism in scientific sociology has been the attempt to develop a composite scientific method for sociology which shall take all social facts into account and synthesize all minor methods of social investigation and research. However, a method of constructive synthesis of social facts has been slow to develop in sociology on account of the strong pull of methods which have practically been "fads" in other sciences. "Objectivism" in psychology, for example, has had a very strong influence in sociology. A British psychologist, the late W. H. R. Rivers, has strongly indorsed the idea that sociology should remain for the present, at least, a purely descriptive science, devoted to setting forth the facts of social organization in the various stages of social development.[101] This he calls "pure sociology," although that term has usually been understood to mean "sociological theory," as opposed to more or less practical applications

[100] *Social Process*, Chap. v.

[101] See his *Social Organization*, 1924. Similar ideas were set forth in his *Kinship and Social Organization*, 1914. See also his *Studies in Evolution and Eugenics*, published in 1923.

of theory. While Professor Lowie has written a work on *Primitive Society*[102] from the same point of view, Rivers' sociological objectivism has met with little favor among the mass of scientific sociologists. As Miss Follett says in her latest work, "Facts must be understood as the whole situation with whatever sentiments, beliefs, ideals, enter into it." Again, she rightly says, "Objectivity alone is not reality" . . . "Internal conditioning is of equal importance with external conditioning."[103] In a similar spirit Lindeman rightly says, "The assumption that science is the enemy of subjectivism has beclouded many issues and retarded the coöperative intelligence of numerous thinkers. Science is the absorber of subjectivism, not its antithesis."[104] The first step toward a synthetic method in the social sciences is, therefore, a recognition of the oneness and equal reality of the so-called subjective and objective, or as we might better say, of the psychical and physical aspects of the social process.[105] The science of economics has already taken this step without difficulty, and only the vogue of extreme behaviorism in psychology has prevented all sociologists from taking the same step. As a matter of fact, the pure objectivist is scarcely to be found among recent sociological thinkers of recognized importance. Practically all sociologists now recognize that the human social process involves an exchange of conscious experiences on the part of the interacting persons.

In a striking discussion of "The Subjective Aspect of Culture"[106] Professor Ellsworth Faris demands the abandonment of the neurological and physiological

[102] Published 1920.
[103] *Creative Experience*, 1924, pp. 13, 54, 65.
[104] *Social Discovery*, p. 116.
[105] Compare Professor Hayes article entitled, "Three Aspects of a Social Situation in Social Forces," vol. iii.
[106] *Publications of the American Sociological Society*, vol. xix, pp. 37–46.

approach in the study of the social process, since anatomy and physiology may be assumed to be constant in any given series of social changes. He calls for a renewal of emphasis on imagination in the study of human society, since images and symbols are the essential material for the formation of social attitudes. He would also increase emphasis on the study of emotional behavior in the social life, especially in connection with crises where old habits break up and new attitudes are formed. Finally, he would renew emphasis on communication and gesture, since culture results from interaction and is transmitted in the interpenetration of attitudes and gestures. Thus Faris would reëmphasize the value of the study of the subjective aspect of culture.

The effort, then, among practically all sociologists at the present, is to develop a composite method which shall take all social facts into account. Perhaps no one has approached more nearly the definition of such a method than E. C. Lindeman, in his *Social Discovery*. He attempts in this book a synthesis of methods, throwing the emphasis, however, upon observation and experiment. He premises that group behavior can be described only in psychological terms. The group, its situation, its stimuli, its responses, its consent, its discussion, its interests, its customs, mores, traditions, and attitudes are some of the fundamental categories which he proposes to use in explaining scientifically group behavior. The chief defect about Lindeman's work is that he probably fails to give proper weight to the historical, statistical, and logical methods. These methods certainly have more value for the purposes of scientific social study than he represents them to have. Indeed, if the emphasis were left wholly on observation and experiment, sociology would remain merely a descriptive science. As Mr. Herbert Croly says in effect in introducing his book, such a sociology would consist merely

of "a perpetual audit of social activities," and would contain little which measures up to Mr. Lindeman's own standards of science.[107]

Lindeman's book is in part an exhibition of the results of the "social survey" method which has become popular for the study of local conditions. Started by social workers as a mere study of local conditions, this method is capable of much wider application, if expanded. When this method is generalized and extended over large areas and through considerable lengths of time it presents the possibility of a synthesis of all inductive methods of research, the anthropological, the historical, and the statistical, as well as the observational method. The best concrete illustration of the use of this wider survey method is perhaps to be found in Branford and Geddes' book, *The Coming Polity*.[108]

Probably no one has given the scientific methods employed in sociology a more critical examination than has Professor Giddings, especially in his last book, *The Scientific Study of Human Society* (1924). The aim of the book is to describe the strict methods of which sociology can avail itself. To this end the author critically surveys the whole field of scientific method so far as it relates to social facts. He believes that only where we can employ quantitative analysis and methods of measurement can we expect to get results in the social sciences comparable with results in the natural sciences. Observation, experiment, and measurement should, therefore, be employed whenever possible in dealing with social facts the same as in dealing with other facts. But quantitative analysis of social facts is possible only through the use of statistics, and hence the science of statistics becomes the great standardizing discipline for the social

[107] *Op. cit.*, p. xiv and xvi.
[108] Published 1919.

sciences. When the social sciences apply to social facts, these exact methods, they will become true sciences.[109]

Another inductive method of social investigation and research, originally started by social workers, which bids fair to produce valuable sociological results is "the case study method." Thomas,[110] Chapin,[111] Burgess,[112] and Healy,[113] especially have pointed out its value for sociology. Healy points out that case studies of persons and family groups frequently afford a point of view in regard to social problems which can be obtained in no other way; that in many fields fairly evaluated statistics and group comparisons can only be obtained by this method; that to secure legislation and community effort the most persuasive material will be found in scientifically prepared case studies; and finally that students can be trained best in good sociological thinking through utilization of the case method of instruction. It must be admitted that the case study method, while inadequate to approach the general problems of sociology, probably offers the best approach to local and special social problems. It will, therefore, take its place among the recognized methods of scientific induction in sociology.

INDUCTION AND DEDUCTION

But science, as science, cannot be merely induction. Hence the more progressive sociological thinkers make use of deduction as well as of induction in their scientific methods. In other words, it is coming to be recognized

[109] Professor Walter F. Willcox of Cornell University in his numerous statistical monographs has for many years been an exponent of this view.

[110] Thomas, *The Polish Peasant*, Methodological Note.

[111] "The Relations of Sociology and Social Case Work," in *Proceedings of the National Conference of Social Work*, 1919, pp. 358–364.

[112] "The Trend of Sociological Research" in *Journal of Applied Sociology*, vol. viii, pp. 131–140.

[113] "The Contribution of Case Studies to Sociology," in *Publications of the American Sociological Society*, vol. xviii, pp. 147–155.

that a complex science such as sociology is, demands for a complete and adequate scientific method the synthesis of the results of deduction from the principles of antecedent sciences with the facts secured through the inductive study of social life by means of observation, statistics, history, and anthropology. An adequate composite method for sociology must put together all the facts from these sources in a constructive synthesis before we can have a scientific understanding of human social life.

ETHICS AND SOCIOLOGY

The tendency of a majority of sociologists at the present day is to develop sociology in the interests of ethical ideals and of social reconstruction. Perhaps most sociologists would agree, in a general way, with Professor E. C. Hayes,[114] that " Sociology aims at nothing less than the transfer of ethics from the domain of speculative philosophy to the domain of objective science." In his book, *Sociology and Ethics*,[115] Professor Hayes has attempted to show how this may be done. Working from a somewhat different point of view, Professor L. T. Hobhouse, in his work, *The Rational Good*,[116] has also attempted to show how sociology may contribute to ethics: Perhaps no one has shown better how this can be done concretely than Professor Mecklin in his *Introduction to Social Ethics*.[117] Much of the sociological work of the writer of this paper has also been in this direction.[118] However, a small minority of sociologists dissent vigorously from this point of view. They hold that sociology should develop as a pure science without ref-

[114] *Introduction to the Study of Sociology*, p. 4.
[115] Published 1921.
[116] Published 1920. See also *The Elements of Social Justice*, 1922.
[117] Published 1920.
[118] See *The Social Problem: A Reconstructive Analysis*, 1919; *The Reconstruction of Religion*, 1922; *Christianity and Social Science*, 1923.

erence to social ideals or practical social reconstruction; that sociology as a science is concerned merely with the description of social organization and the "behavior mechanisms" which we find in group action and in social situations. They hold, moreover, that those who find that sociology is closely related to ethics and should concern itself with the practical problems of human living have deserted altogether the scientific point of view. It may be said in reply that the sociologist has as good a right to be interested in the development of a scientific ethics as the psychologist has to be interested in the development of a scientific sociology; that the effort to make sociology merely a study of behavior mechanisms makes of it a dead science; that ethical valuations cannot be escaped if sociology deals at all with the practical problems of social reconstruction; and finally, that those who adhere to this "pure science" attitude in sociology are playing into the hands of those conservative interests who wish to divorce science from practical life, and in particular wish that the social sciences should not meddle with practical problems or current social questions.

INFLUENCE ON SPECIAL STUDIES

It would be wrong to close this brief survey of recent developments in sociology without at least mentioning the influence of sociology upon numerous special studies. In the United States, especially of recent years, there has grown up a vigorous offshoot of general sociology which is called "Rural Sociology." As developed in the hands of such men as Gillette,[119] Galpin,[120] and Vogt,[121] rural sociology has not only thrown scientific light upon the life of rural communities, but also through the study of rural life has made valuable contributions to general

[119] *Rural Sociology*, 1922;
[120] *Rural Life*, 1918. *Rural Social Problems*, 1924.
[121] *Introduction to Rural Sociology*, 1917.

sociology itself. Another offshoot of general sociology is "Educational Sociology," a study of the social aspects of the educative process, Clow,[122] Finney,[123] Peters,[124] Smith,[125] and Snedden,[126] have made this branch of sociology a subject of growing importance which promises not only to be of the utmost help in the scientific understanding of the educative process, but also in the understanding of the social process. Finally, the sociology of religion is another offshoot of general sociology, though it has not yet attained the development and recognition which has been given to rural sociology and to educational sociology. It is hardly necessary to add that many other special social sciences stand in closest relation to sociology and are being greatly influenced by its development. This is true, not only of such sociological disciplines as social pathology and criminology, but also of such older and more developed sciences as history, economics and political science. Perhaps the most successful attempt to bring sociology and social psychology into close coördination with a social science is to be found in Professor Barnes' work, *The New History and the Social Studies*.[127] This book virtually indicates the transformations which we may expect in history when historians understand the close relations of their science to sociology.

Finally, mention should be made of the valuable historical studies which are now being made of the development of social thought. Professor E. S. Bogardus in his *History of Social Thought* has shown in an illuminating way the movement of social thought from the earliest down to the most recent time. Professor J. P.

[122] *Principles of Sociology with Educational Applications*, 1920.
[123] *The American Public School*, 1922, and numerous articles.
[124] *Foundations of Educational Sociology*, 1924.
[125] *An Introduction to Educational Sociology*, 1917.
[126] *Educational Sociology*, 1922.
[127] Published 1925.

Lichtenberger in his *Development of Social Theory* has sketched in a different but in an equally illuminating way the sociological systems from Plato to Tarde.[128] Professor A. W. Small has thrown much light upon the origins of sociology in German historical, economic, and political thinking.[129] Professor L. M. Bristol has studied an important phase of the development of social thinking in his work on *Social Adaptation*.[130] Professor F. H. Hankins has clearly and systematically classified recent sociological theories.[131] Perhaps the most comprehensive monographic studies along this line have been undertaken by Professor Harry E. Barnes,[132] who contributes a chapter to this book.

If observation were the sole method to be relied upon in the social sciences, these historical studies would have little value; but if comparison and logical inference are also methods of value, then these studies are of great value, because they show not only the falsity and futility of much of the social thinking of the past, lacking as it did a scientific basis, but also a clearly discernible trend in the social thinking that has come from the social experience of the ages, effectually exposing the inadequacies of some present day social science. All must agree with Professor Small that " from the viewpoint of modern science, the first step in any science is finding out what has already been done in the particular field "; and if this is true, the study of the historical development of sociology is of the utmost value.

[128] Published 1923.
[129] *The Origins of Sociology*, 1924.
[130] Published 1915.
[131] Chapter VI in Barnes' *History and Prospects of the Social Sciences*, 1925.
[132] See especially his *Sociology and Political Theory*, 1924, and his series of articles on "American Psychological Sociology" and "Representative Biological Theories of Society," in *The Sociological Review*, vols. xiv, xv, xvi and xvii.

CHAPTER II

RECENT DEVELOPMENTS IN ANTHROPOLOGY

BY CLARK WISSLER, PH.D.

Curator-in-Chief, Division of Anthropology, American Museum of Natural History; Professor of Anthropology, Institute of Psychology, Yale University

ANTHROPOLOGY

THE subject now before us is much like the crystal paper-weight lying on my desk; it has a number of smooth facets, all equal and symmetrically arranged around a centre, and the whole looks so transparent that one picks up the crystal in confidence that by putting his eye to one facet, he can see through the heart of it. But a trial will show it to be otherwise, for all the other facets and the corresponding internal radii seem to get in the way, giving a confused image. So it is with the human problem, for here on the academic table are history, economics, sociology, psychology, geography, jurisprudence, ethics, philosophy, genetics, physiology, morphology, anthropology, *etc.*, each presenting a vista promising a direct open road to an understanding of man. To a naïve observer they look equally sufficient, and since all are headed toward the same central objective, he is moved to a lively anticipation; but as in the case of the crystal, when he essays to stand before one of the vistas, he contemplates contradictions, negations, and opaqueness. Yet, though disappointed because of an understanding of the totality of human life is seen only as a blur, what he does see is a sector of the processes and events that underlie a specific type of human activity. If,

for example, it is into the facet labelled genetics that he looks, there comes a glimpse of the laws of heredity by which even the subtleties of temperament may be governed. This is in truth an inspiring vista and oft fires the student with the enthusiasm in which is born a faith in the efficiency and all-sufficiency of a single lead to the great problem—the genetic approach. But we are now to stand before the facet labelled anthropology, which also has its loyal students, some of whom, at least, believe it to be the only possible approach to the great all-pervading problem. What then do we see and what is the promise that anthropology holds out to him who seeks the fundamentals in human society?

The time-honored way in which to begin an answer to a question of this kind is by setting up a few definitions and though such a procedure is often looked upon as unscientific, it seems necessary here, for one may quite innocently ask, what, after all, is anthropology? Anyway, how can one speak intelligently of anthropological points of view without setting up boundaries? But adequately to define a science is difficult and one must in the end fall back upon a witticism. Thus it will not suffice to say that botany is the study of plants, for botany in university nomenclature is a group of problems. So turning to anthropology, one might venture to retort that it is a group of problems pursued by men and women who call themselves anthropologists. At least, this is the point of view in this discussion, to consider the problems formulated by contemporary anthropologists and the methods they have devised for these approaches.

Like every other of its kind anthropology has a history,[1] and while this is not the place to give a comprehensive account of it, it is well to note that in America, at

[1] Haddon, A. C., *History of Anthropology.*

least, anthropology grew up as a museum subject. For the most part, those who devote their lives to research in pure science must find some related service to society by which to live, and while in most cases this is managed by teaching, there were at the outset no chairs in anthropology, in fact there are not many now; on the other hand, the antiquarian interests of mankind demanded expert service, chiefly in museums. Thus, it came about that the anthropologist turned collector and curator. Exploration was and still is his forte. But anthropology as a museum subject received recognition at a time when museums of natural history were evolving and found its place in the scheme as the natural history of man. Its inspiration came chiefly from the geological and biological sciences, and in consequence it turned its face away from the historic and to objective empirical methods. Its first and main problems were found in the study of collections of material objects, as stone implements and pottery; in short, the surviving handiwork of man and also his skeletal remains. True, some attention was given to living man, but at the outset the prehistoric was the chief objective. So both the method and the material warped the investigations away from the historic peoples and even the protohistoric of the Old World. In America the problems were, Who were the mound builders? Who the ancients of Mexico? Did man live here contemporarily with the mammoth and the mastodon? What are the biological affinities of the native races? *etc.* And so it has remained to this day that American anthropology, and, for the most part, American museum curators, have found their problems in the New World, whose native races were without history in the usual sense of that term. Hence, empirical objective methods were the only obvious modes of approach. And it is fortunate that it

was so, for otherwise the approach would have been from history, the methods of which are wholly unsuitable in such a setting.

Now, one of the consequences of making anthropology a museum subject was to emphasize the problems of material culture and art, to study racial anatomy, but to disregard living aboriginal cultures. The patrons of museums were not then interested in what the living individuals made, let alone what still survived of their cultures. No doubt it is an unpardonable sin to violate a confidence, but the writer was once shown a letter in the files of a large museum, dated some forty years back, in which the curator of anthropology told his trustees that nothing worth while was to be had from living North American tribes, and that their efforts should be directed to the prehistoric and to other parts of the world. This was, in fact, the prevailing idea of the time. But shortly after the above letter was written there came a turning point in the evolution of anthropology, due in the main to non-museum interests.

To make clear what happened in anthropology, we must bring in a few distinguished names, though to do so here will invite reproof for not mentioning others equally meritorious in the development of museum anthropology. In 1876 there was set up in Washington in the United States Geological Survey an ethnological survey, which eventually evolved into a distinct Bureau of Ethnology. Incidentally, we may note that geologists, generally, have taken an active part in the development of anthropology, and relatively more recognition is due to them than to the biologists. The moving spirit in the United States Geological Survey was Major J. W. Powell, but he was especially interested in the living Indian, his language and his culture, and being a man of

great attainments and constructive leadership, he gathered about him a group of scholars, who devoted their time to research rather than to mere collecting and to museum housekeeping. Soon this group of anthropologists at the capital rose to the level of university research. At about the same time Daniel Brinton, in Philadelphia, became interested in linguistic and cultural problems, and was appointed to a chair in the University of Pennsylvania in 1886, and at once began a research career. At about the same time F. W. Putnam, a museum director, also became a professor at Harvard. This leadership soon bore fruit, so that in the early nineties museums also came to interest themselves in the culture of the living Indian and eventually to take the major part in these investigations, bringing with them their objective point of view and their prejudice for the material object. And, in general, while the museums have been the chief supporters of research, they have over-emphasized art, material culture, and ceremonial procedure. Linguistic, as we have said, was well cared for elsewhere, but the other social problems were in the main left to their fate.

Yet this picture will not be complete without reference to Lewis H. Morgan, who died before the work of Powell came into its own, and who did his greatest work in the Civil War period. By many Morgan is considered our greatest social philosopher. However this may be, Morgan was a student of the living Indians. He lived among them, as does the modern field-worker, and his field reports are still models to be followed.[8] But, above all, it was through these field studies that he achieved the insights into society that laid the foundation for the future. Morgan influenced Powell, Brinton, *etc.*, we

[8] Dixon, Roland B., *Some Aspects of the Scientific Work of Lewis Henry Morgan. (Researches and Transactions of the New York State Archæological Association,* Lewis H. Morgan Chapter, Rochester, N. Y., vol. I, No. 3, pp. 9–20, Rochester, 1919.)

know, but his work was looked upon as belonging to another class of studies. In fact, he lived a little too early to gather under his lead the later linguists, curators, *etc.* Naturally, this may not be the true reason, for in Morgan's day the academic circle was scarcely conscious of social problems as these are now recognized. Later anthropologists left Morgan's contributions to the new sociologists, and only very recently have they turned to follow the leads long ago opened by this great genius.

The setting for anthropology in America is now before us in outline. First and last, museum interests have dominated, directing attention to prehistoric archæology and racial anatomy, but later turning to the more objective culture and linguistic problems of the living Indians. Finally, out of linguistic studies came a revival of interest in some of Morgan's problems and a much belated appreciation of his work. But to comprehend fully the conditions besetting the career of anthropology in America, it should be realized that when we say that the museum point of view prevailed, we mean the collector's ideal. Antiquarian interest is universal, and in every civilized community will be found the collector of relics who is for the most part an amateur anthropologist. If he is possessed of wealth and ambition, he aspires to be the owner of rare and unique objects made by primitive or ancient man. He may possess great technical knowledge of these objects and their distribution, but practically never rises to the level of conceiving a problem in pure science. He may become interested in a museum, but then only as a place for housing his collection and heralding his name. It is not to be implied that this is an unworthy use of his talents and money, for it is to the private collector that anthropology owes much of its success. What is significant is that this state of affairs conditioned the development of anthropology

in America, for as just stated, the few pioneer students of the subject made their living by serving these collectors and built up museums as mausoleums for their stores of specimens. Further, when an anthropologist wished to extend his knowledge of man, he sought out the collector, laid before him his general plan and promised a return in specimens. But rarely did the prospective patron care whether there was a scientific problem or not, only that he receive new and rare objects not yet in the hands of his rivals. This spirit among the donors to anthropological exploration is still prevalent, so that it is rare indeed that anyone can take up anthropological research unless the specimen return promises to justify the expenditure. And it is not strange that for many years, and even now, those who have the true spirit of research are frequently led into careers of competitive collecting.

Surrounded by such conditions, problems in language, social organization, *etc.*, received scant attention, for they contributed nothing to the collector's cabinet. In contrast to this, note the position of the small group of anthropologists in the National capital under the leadership of Major Powell. Following them came the slow but positive development of anthropology in two or three of our large universities, with the consequent encouragement of scholarship in the academic sense, which, in the course of a decade or two, raised the problems of man's origin and subsequent career to the level of a natural science. Thus it has come about that there now prevails a wide recognition of the importance of anthropology as a university study and a universal desire for its introduction. It is still true, however, that the support for research is dominated by the collector's interest, with the result that the more fundamental problems are neglected. But as the introduction of anthropology into our universities proceeds, this asymmetry will be corrected.

THE NATURE OF FIELD-WORK

Anthropology can never be an experimental science. So, like geology and geography, it must depend upon world-wide exploration for its data, and it is to the field collector that one must look for the immediate contact with the phenomena of the subject, essential to the empirical attitude required by science. In America the surviving Indian tribes and their predecessors offered a virgin field, indeed the raw materials available in our country are exclusively Indian. This is sometimes looked upon as a weakness, but it is not; it would be folly to shut our eyes to what lies before our doors.

As we have indicated in the preceding the productive period in field-work among the Indians of America falls within the last forty years, so we may profitably consider the way in which this work was done and its objectives. So far as we know, no one has ventured to do this; in fact, it is a forbidding task, one that invites failure, because contemporary workers see the individualities of their methods rather than the fundamental similarities. Yet by sticking closely to basic procedure we may achieve some measure of success. When the field-worker approaches a tribe his ideal is a complete description of its culture; this not only includes a description of how the people live, their ideals, *etc.*, but a record of their speech and finally a description of their racial characters. In all this he seeks to be as objective and concrete as possible to collect museum specimens and to take photographs for the completion of the record. However it is not in reality what the tribe is doing now that is to be observed, but rather only those activities that are surely native and not borrowed from the whites. As a matter of fact, even forty years ago the Indian had travelled far from the land of his fathers, and so the gathering of data was for

the most part the collecting of personal narratives. Language, somatic type, and, to some degree, art, could be approached by direct observation, but in other aspects of the problem, observation yielded only fragmentary results unless supplemented by narratives. Of course, this indicates that Indian cultures were on their deathbeds, and that the field-worker was sitting by to catch the last words.

LINES OF SPECIALIZATION

At the outset we stated the ideal to be the complete study of the tribe; this, however, proved impractical at the hands of a single individual, so the work split into three lines of specialization; linguistics, anatomy, and culture.[8] As we are now interested in social studies, our chief concern is with the last; but as we hope to show, a rigid restriction of one's attention to this one phase of the subject will result in failure to understand the significance of field data in anthropology. Nevertheless, let us consider first the nature of the data on culture gathered by the field-workers. Within the limits noted above the field anthropologist is an observer and seeks to record the facts. He may indulge in some interpretation, but that is incidental to his work, which is first, last, and always, to record the facts. Now, it is often assumed that students of the social sciences are primarily interested in

[8] The following are suggested as types of monographic tribal studies: Jochelson, Waldemar, "Myths and Religion of the Koryak and Material Culture and Social Organization of the Koryak," *Memoirs, Jesup North Pacific Expedition*, vol. x, Parts I and II, 1905–1908; Lowie, Robert H., "Papers on the Social Life, Material Culture, Religion, Societies, and Mythology," in the *Anthropological Papers, American Museum of Natural History*, vol. ix, Part II, vol. xi, Part III, vol. xvi, Part I, vol. xxi, and xxv; Fletcher, Alice C., and La Flesche, Francis, "The Omaha Tribe," *Twenty-seventh Annual Report, Bureau of American Ethnology*, Washington, 1911; Thalbitzer, W., "The Amassalik Eskimo," Part I. "Contributions to the Ethnology of the East Greenland Natives," *Meddelelser om Gronland*, vol. xxxix, Copenhagen, 1914.

social origins, a problem in interpretation by analysis and comparison, a method approaching that of philosophy; they are not inclined to take up field-work, as does the anthropologist, but tend to go through the records, seeking suggestions for the working out of an interpretation.

There is not the least doubt in the mind of the writer as to the reality of the social origin problem; we are merely stating the point of view to show that there is a rather wide divergence between these two methods of inquiry. Should such a social student go into the field of the anthropologist he would be concerned only with the social function itself, whereas the anthropologist runs the whole gamut of what he conceives culture to be. However, this divergence in method is not a necessary one, but arises in conceptions soon to be outgrown. No one can deny that anthropology neglects a part of its field. True to its antiquarian bias, and the collector's demand for old things, it has been blind to the contemporary life of the Indian in so far as it manifested an adjustment to new conditions. No one, for example, seems to have studied the reaction of the Indian to Christianity, or to have recorded observations relative thereto. Yet, here was a culture process functioning in a typical way, repeating in essential outlines what must have occurred over and over again since culture began. In like manner, the Indian adjusted himself to a new conception of property and inheritance, but no one sat in to watch the procedure. Even in the midst of this, the field-workers spent hours of time harrowing the failing memories of the old and the senile for a scrap or two of some long lost culture complex. Not questioning that in this the field-worker's time was usually well spent, forcible attention should be called to the shortcomings of this method. But of far greater concern is the tendency to limit study to savages, to the entire neglect of other cultures. Undoubt-

edly, this is the gravest charge that can be laid before the door of the anthropological museum and one of the reasons why universities have shown a hesitant attitude. Yet it was fortunate that attention was given to the wilder peoples, fast disappearing from the earth, as we now have at hand a perspective and a technique which can be applied to higher cultures. The moment, therefore, that universities set up departments in anthropology, the study of contemporary cultures can be taken up.

Returning now to the technique of anthropological field-work, it may be objected that it is largely a mechanical affair. From one point of view it is; such collecting of culture data is closely parallel to the collecting of insects, for example. It has been the writer's great privilege to know a number of contemporary naturalists; all are great collectors of their special materials, and the taking, preparing, and identification is in truth a mechanical process. It does require brains, however, and genius besides; and by such a process these naturalists keep close to nature, keep their feet on the ground, so to speak. If one challenges their statements, they say, "Here is the material I collected. I did not make it or mar it. See for yourself." One must accept their notes and pictures as the data for behavior and for geographical distribution. Now, the case is quite the same with the anthropologist observing culture, a phase of human behavior, and who brings back a collection of objects made and used by a tribe, with a mass of notes and some pictures. This is all objective and verifiable to the same degree, and in much the same way as in the case of the naturalist. The point is then that the social student should look upon the data gathered by the anthropologist, and accepted as facts by the critical leaders in this field, as objective materials of basic importance. It has not infrequently happened that the social student rejected the data

of culture, because it recited a bewildering array of facts, giving no theories and no interpretation. This wealth of facts, however, is the basis of the just claim of anthropology to be recognized as a science, and the difficulty of social studies in gaining such recognition is explained by their having too few facts to sustain their ambitious theories.

One might infer from the foregoing that the vast store of facts now being accumulated by field-workers among living cultures, compiled and conserved by the anthropologist, is the chief contribution of anthropology to the social sciences. Perhaps it is, but the field-worker has been face to face with the living reality, and so acquired an insight and a point of view the data will not of itself convey. It is one thing to see the parts of a great machine and, lying about it, the débris resulting from its operation, but quite another matter to see it at work, and to feel its power. Anthropological field-workers have sought for the phenomenon that works through mankind, and feel that they have in large measure come face to face with it. They conceive, then, that culture is a phenomenon which can be dealt with in a scientific way. Hence, there are conceptions and interpretations of culture based upon concrete experience which can only be had first hand and not from the mere data of the subject. These, far more than the facts, are what the seeker after social origins may expect to gain by the pursuit of anthropology, but if not able thus to come face to face with living culture, he cannot afford to ignore the interpretations emanating from field-workers.

GEOGRAPHICAL DISTRIBUTION

But to return to the human naturalist, the anthropological field-worker, who goes about objectifying the phenomena of culture; how may one characterize the facts

he records? In the first place, they are items of reality, in so far as things can be real, as when one enumerates the foods, recipes for their preparation, methods of conservation, *etc.*, for a native group, or tribe; but more than any other naturalist the anthropologist emphasizes the time and place distribution of these facts. One even gets the impression now and then, that the anthropologist cares little for the social aspect of the facts he records, or even for their reality, placing the emphasis upon their distribution in space and time. In current discussion one frequently encounters the retort of anthropologists as respects the sociologists, "they are not conscious of the facts of distribution."

Let us see just what is meant by this. One type of sociological problem uses anthropological data as a source from which to draw illustrations, or as confirmation that the expected did happen in one or more tribal groups. In all cases of this kind the investigator chooses his examples at random, now from one hemisphere, now from another; neither the place nor the time are regarded. If one is seeking a type of social response, this is one way to find it, and may, for all we know to the contrary, be the best way. If so, then the published field studies of anthropologists will be invaluable. But it appears that in such studies the method is largely one of seeking examples to show that the innate behavior of man can express itself according to an assumed pattern. And since the innate behavior of man is deeply rooted in his body the attention of the student is turned inward, whereas the anthropologist professes not to be interested in peeping within, but in what is objective, in what stands out independent of individuals. He sees in the couvade, for example, a freak of custom, but what he asks for eagerly is its geographical distribution. He seeks the history of the couvade *after* it has become a tribal habit

The social student, on the other hand, is interested chiefly in how that anomalous custom *arose*, and once it begins to function and to diffuse over the world, he loses interest. This point of view on the part of the anthropologist is frequently characterized as the historical method. It is an interest, not in the origin and causation of a cultural fact, but in its subsequent diffusion and history.

THE HISTORICAL METHOD

If one seeks for unanimity of opinion as to what constitutes the historical method in anthropology, he will not only be baffled, but will find the investigators themselves quite unprepared to state their positions. As stated above, their attitude is essentially that of the naturalist, the collector of data, except that they are more concerned with time and space. The evolution they seek, in so far as social phenomena are concerned, is that expressed in geographical distribution and in time sequence.

Anthropology's favorite definition of itself is the "science of man, his origin, career, and distribution over the earth." But clearly that sweeps in everything relating to man; history, for example, claims part of this field; philosophy, psychology, sociology, art, religion, *etc.*, also each lay claim to a part of it. And so do geography and the biological sciences. Yet, certain limits to anthropology have evolved, as when we find no note taken of innate behavior, other than to accept it as a fact. Further, while it is acquired behavior that makes up part of the data of the anthropologist, it is essentially group, or tribal, behavior, that receives his attention. So there is left to psychology and the biological sciences the whole question as to what is innate in behavior and how individuals learn to do the things that constitute culture. It is because he has turned his back upon these fundamental underlying problems that the anthropologist is disposed

to take the facts of culture he records as fortuitous events. So far as he is concerned, they just happen, no determinate cause is to be sought for them; it is denied that they are innate; it is equally obnoxious to hold that the environment causes them; had the tribe so willed and done, marriage, for example, could have taken any one of many conceivable forms, all fortuitous. However, when a custom appears in a tribe, there is a cause for its appearance and, attempting to be consistent, the anthropologist holds that to explain its presence one must know whether it was invented where observed, or borrowed from a neighboring tribe. The cause of its appearance will be found in such facts[4] and is what anthropologists call an historical cause. The history of the case, it is maintained, will tell why the Hopi dances with a rattlesnake in his mouth, at least all that the anthropologists care to know about this fact of culture. The method by which such conclusions as to origin and historical causes are attained is in the main one of geographical distribution.

With the foregoing in mind, we shall have little difficulty in understanding why the anthropologist gibes at the social student, the psychologist, the geneticist, the biologist, in fact, almost everybody, that "he is blind to the significance of distribution." The other, and perhaps the least understood of all the points of view held by anthropologists, is that in respect to this explanation for the appearance of culture, organic evolution counts for nothing, or it has nothing whatever to do with the time sequence of social events. Thus, certain outstanding anthropologists emphatically deny that the sequence, stone age, copper age, bronze age, iron age, steel age, *etc.*, is more than a fortuitous sequence, and is in any way con-

[4] The cause of its appearance where observed is found in the borrowing, in case it *was* borrowed, but this, of course, affords no explanation of its *origin*, whether borrowed or indigenous.—Ed.

nected with organic changes in man. However, we are not now concerned with what can be proved or what is justified by the facts, but are merely trying to state things as they stand. The anthropologist would say that organic evolution may account for man as we find him biologically and for his innate behavior, but not at all for what the tribe does in detail. Why one tribe has the couvade and another not, cannot be explained in terms of organic evolution.

THE ORGANIC HISTORY OF MAN

No doubt this point of view is now clear, but we have considered only a part of the anthropological contribution to an understanding of man's social, or cultural career, on the earth. There remains his origin, his biological career, and his distribution over the earth. In the face of such dignified problems, one may wonder why so much attention has been given to culture problems, if they are looked upon as wholly fortuitous. The answer is not far to seek. Sequence in time is fundamental in the problem of man, and time relations to his past are established by the remains of culture processes found in tombs, caves, and elsewhere, and the levels, or strata, are dated by the débris of culture, just as the geologist is dependent upon the fossils in the layers of rock for their dates. To interpret the cultures of the past from the imperishable objects that survive, one must know living cultures. All this is well illustrated by recent events in Egypt, where we see how illuminating are the contents of a tomb, which though ancient, is well preserved, and how satisfactorily one may interpret the scanty finds in less favorable localities by aid of these new data in hand. So in much the same way, one can turn from a good study of a living primitive tribe, if objectively made, to an interpretation of what comes from a European cave.

With this hint in mind one can clearly understand why so much energy has been given to the rapidly vanishing non-historical cultures of the world. It is also growing plainer why in the pursuit of this task, organic evolution and its point of view are ignored. The anthropologists believe that ultimately the time sequence of events in man's cultural career will show whether it is really fortuitous or not.

However, no one really loses sight of the main problem, the organic history of man. The whole world becomes expectant the moment it is announced that a new specimen of fossil man is forthcoming, and in this anthropologists are deeply concerned. Ultimately such discoveries will reveal the origin of man and the true sequence of his successive biological forms, they will also bear upon the puzzling questions of man's distribution over the earth. Yet the main concern of the anthropologist is to understand the tribal groups of man somatically, both past and present. His attitude here is in general that of the systematic zoölogist, or again that of the museum naturalist. He goes about the world collecting skeletons, a kind of scientific grave robbing, and when humanity and ethics bar the way, he contents himself with photographs, notes, measurements, plaster casts, *etc.* What he seeks, in working up this material, is to ignore individual variation, but to define the tribal somatic type by measurement and description. It is, then, tribal species that he seeks, presumably revealing the genetic relations of the tribes of men.

Now, in this case, the anthropologist deals with the innate and accepts, in general at least, the method of organic evolution. He does not, however, consider the problems of heredity or of genetics as falling within his province, he merely assumes the fact that there is inherit-

ance. Again, we find his position not unlike that just reviewed, in that he seeks to record and classify his data by objective comparisons. His favorite character has been the cephalic index, according to which he may group the tribes of men and determine the time sequences of these cephalic types in any one given part of the earth. Though he does not, as just said, give much thought to the problems of heredity, mutation, *etc.*, he does assume that the events in this case are not fortuitous, but due to definite biological laws for the most part unknown to him and unsought. Yet what he seeks is a method by which the sequence of these biological events in man's history may be satisfactorily revealed. Just as the geologist may go about dating the rocks in terms of time sequence, without a thought as to the causes that brought this sequence into being, so the anthropologist proceeds to a classification of men by their skulls, or other characters, seeking clues to their time relations. More than once these enthusiasts for their profession have asserted that the end of all in anthropology was to describe perfectly somatic characters and to compare accurately those for one tribe with those of another. One needs but to turn to the literature of the subject to note how fully this ideal has been realized. But when carried to such an extreme the method is used as an end in itself. This may, in part, account for the lagging interest in the subject and its failure to find enthusiastic supporters in university circles. Yet, as just stated, when anthropologists do take up fundamental problems in the field, they accept the facts of heredity and the biological point of view. They recognize that they are dealing with a different type of phenomenon from that met with in the investigation of culture.

It appears, then, that anthropology occupies an anomalous position among the academic sciences, a house divided

against itself, in that it tacitly accepts organic and innate behavior in one group of problems, but rules it out in the other. In other words, it has within its fold two rival camps, those who emphasize biological problems, and those who regard historical problems as dominant. This is, however, largely a matter of dogma, a segregation of the personal philosophies of anthropologists, whereas, they are agreed that their great objective is time sequence and distribution.

TIME SEQUENCE FUNDAMENTAL

Now that we see so much emphasis is placed on chronology, it may be well to ask what justification there is for this. If the important problem is an understanding of the phenomena of culture, then of what advantage will a time sequence be?

In the first place, one who seeks an understanding of modern institutions soon becomes aware of the value of history, and history without sequence would be an anomaly. This is, of course, too obvious to dwell upon, but when one turns to social origins, the need of such a point of regard is just as urgent, yet, if we read the literature aright, far from obvious. When the field-worker goes out to his tribe, he notes many curious customs, and though all are now contemporaneous in function, it does not follow that their origins were contemporaneous, or that they appeared in this tribe simultaneously. If in drawing at random from the traits observed one should draw the mother-in-law taboo and cross-cousin marriage, the natural query is as to the relative age of these two traits. Or to put the matter in another way, what is the relative age of the mother-in-law taboo compared with other social traits? Nor is this an irrelevant question in social origins, for how can the problem of the origin and

significance of such a trait be satisfactorily approached without some assumption as to the time of its appearance? The writer is well aware that some will retort that such a concrete and trivial problem would not be considered by the seekers after social origins, that something far more fundamental is meant; but for the sake of clearness we must select our examples from the note-book of the anthropologist. From that point of view the example is a good one. Yet how shall we arrive at the age of this trait? Here is precisely where the method of anthropology offers encouragement.

Let us turn, first, to a simpler case, one often cited, the curious age-graded societies of our western Indians. These have been studied by both sociologists and anthropologists, but it was the latter who gave the concrete data in completeness. From this it appeared that some tribes had the societies, but did not grade them by age, nor maintain age sequence qualifications for membership. The question then arises as to whether the societies existed first independently, while much later came the ranking feature, or the reverse, and upon the answer to this will depend, in part at least, the solution to its social origin. Now, without at this point detailing the method, it may be stated that the evidence favors the recent origin of the ranking feature, as opposed to the societies themselves. This would mean that the responses, or what not, that brought the one into being were not quite the same as for the others, and that the problem is a double one. Further, the evidence strongly indicates a relatively recent origin for the societies themselves, from which it follows that the origin of the age character is quite modern.

The mother-in-law taboo, however, is far from being so simple, and its chronology is yet to be worked out, but still with the data at hand, the probabilities are greatly in

favor of the view that it is of great age, and that it has arisen in two or more parts of the world independently. Within any one of the areas in which the taboo has been observed, one may profitably take up the investigation of its time relations. The fact that no one has as yet done this is largely accidental.[5]

But the foregoing are merely specific cases, small units in the time sequence scheme; yet the final outcome of anthropological research will be a series of culture strata, analogous to the strata of the geologist, and this will be the outline for culture's evolution, according to which one can say that certain social forms appear at this period in the sequence and others at that period. Further, once the chronological outline of culture's career in the world takes definite form, it will be possible to see the phenomenon as a whole and thus more successfully to single out the approaches to social problems.

THE SIGNIFICANCE OF DISTRIBUTION

As we have stated, the anthropologist puts his faith in geographical as well as temporal distribution. Anthropology is to him one of the earth sciences, meaningless if it is lifted from its base, because so long as it rests upon this solid geographical foundation it is objective and verifiable. In this the anthropologist does not stand alone, for the students of faunæ and floræ also place great stress upon the facts of distribution. They have even gone so far as to formulate certain principles of

[5] For a theoretical discussion of time relations, see Sapir, Edward, "Time Perspective in Aboriginal American Culture, a Study in Method," *Memoir ninety, Geological Survey of Canada*, Ottawa, 1916; for an example of chronological method, see Kidder, Alfred Vincent, *An Introduction to the Study of Southwestern Archæology, with a Preliminary Account of the Excavations at Pecos*, New Haven, 1924; finally, for the earliest phases of culture, see MacCurdy, George Grant, *Human Origins, A Manual of Prehistory*, 2 vols., New York, 1924.

distribution, as for instance, "the more widely distributed is the older, or the more generalized." Also by a method of interpretation, plausible conclusions as to the centre of dispersal are arrived at. Thus the naturalist has been able to reduce the chaos of faunal data to order and law.

Now, the anthropologist is also a student of fauna, human fauna, and many of his descriptive characters are facts of behavior, or culture. Further, when he seeks the distribution of his data, he also finds order and consistency and, in the main, his fauna behaves like the faunæ of his natural history colleagues. In other words, the gross phenomenon is the same for all the biological sciences. It matters little, therefore, whether the anthropologist is concerned with hair color or with taboos, the approach is neither complete nor effective until the distributions are known.

At this point a word of caution may be injected, for we are speaking of the anthropological ideal rather than the reality. True, the value and force of the distribution method is generally recognized, but the technique is far from perfected and is still in need of improvement. Especially do we need penetrating studies into the mechanisms of distribution and how its different forms are correlated with time sequence and centres of dispersal. There cannot be the least doubt, but that in the future real order may be established in the jumble of social details by the accumulation of distribution data from which time relations may be determined. It is the insight now opening up in anthropology, the lead offered in the distribution method, that is the most promising contribution in contemporary anthropology.

There is still another aspect of this question: if certain specific social phenomena are directly based upon innate responses, then they should be world-wide, or

correlated closely with racial types.[6] Hence, the distribution of all data used in the consideration of social origins should be carefully scanned; if a trait is highly localized, then it cannot be taken as possessing universal human validity. Its function and origin appear to be specific, and in that respect largely accidental. This tends to make clear why it is that the anthropologist is tempted to call down the distribution upon the student who sweeps the world for his verifying facts.

THE HISTORICAL BACKGROUND

The experience of science is that most problems are simple when once solved, it is only our fumbling about for the right approach that is a maze of complexity. The first self-binding reaper was a huge complicated affair, whereas now a light small machine suffices. Once the problem was solved it was found to be simple, but the first models dragged in with them a lot of roundabout approaches with their non-essential processes. It is much the same way with a scientific demonstration. When the full sweep of the phenomena has been realized, when it has been well explored and adequately sampled, then it may be confidently expected that the whole affair will become simple enough. Once before we noted that anthropology was an earth science, and that its data were limited to the surface of the land and so circumscribed;

[6] "Innate response" is only one factor in the complex causation of social activity, and human nature is capable of many kinds of response, so that one "innate response" may be awakened in one physical and social environment and another in a different environment. But an innate predisposition common to all men is still an essential element in causing the activities to be explained, the other factors in the explanation being supplied by the physical and social environment. To exaggerate one factor, or to ignore even one essential factor is that "vice of particularism" from which, as Professor Ellwood says in Chapter I, sociology is escaping. The particularist, however, often renders great service by showing the importance of the factor with reference to which he has special competence.—Ed.

horizontal distribution and time are then its attributes. So once having encompassed the earth and taken an inventory of human community life, one can begin to see the phenomenon as a whole. Thus the situation is somewhat different from what it is in anatomy, for instance, where one is far from being once around the subject. The field-workers in anthropology whose work we have characterized, have pursued their task so assiduously that one can begin to see the fundamental simplicity of the phenomena; at least, anthropologists think they can. So they say that culture is merely a phenomenon resulting from historical causes. Evidently, if all the concrete observable events in culture are neither more nor less than happenings explainable in terms of history, then from that point of view the phenomenon is simple enough, and all the bewildering maze of detail amassed by anthropologists is understandable. It is, therefore, necessary that we carefully scrutinize this very innocent looking statement.

There are several kinds of history in the world, one that limits itself to explanations in terms of sequence, another that seeks for universal laws of culture evolution, *etc.* The first would consider its task ended when it had recited a self-limited sequence of events of which the one under consideration was an end result. Thus, if the historical method were to be used in the study of the mother-in-law taboo, it would be applied specifically to a definite place and time, say a tribe of Indians. It would then be regarded as explained when the events leading up to its appearance there had been recited. This is all very well and might apply equally to a problem in palæontology, not to mention other sciences, but the real point is that here lies the only cause that anthropology need recognize. If more is desired we must call in the students of other sciences.

It is not our function to weigh the value of the assumption that the facts selected by the anthropologists to express culture are adequately explained by sequential and geographical relations, or to put the case in another way, that the phenomena are wholly fortuitous. For, as we have said before, when by the methods of distribution, stratification, *etc.*, a chronological scheme for culture has been achieved in a scientific manner, then it will be plain whether such an explanation is adequate or not. And the important point now is that anthropology has developed a method of attack that is empirical and objective, dealing in observations that are verifiable. Its problem lies in the prehistoric since academic history has appropriated to itself all that is dated, or immediately associated with the written record. But the section of man's career that comprises history is relatively insignificant in terms of time, though with respect to our daily lives it be of the utmost importance. Yet since in time perspective, history is but the peak of a mountain whose sides and base are obscured by mists and clouds, it becomes the task of anthropology to explore this waste of darkness and to reconstruct the broad and deep foundations upon which the phenomenon of modern civilization rests. This is what is meant by the historical background, some sense of which is considered essential to a comprehension of modern life. But the method of anthropology is not a mere matter of technique for rolling up a stage curtain that one may see man in prehistoric time, for it is prepared to reveal the processes by which specific forms of culture took shape and by which they are perpetuated. Unfortunately social sciences often deal too exclusively with a small part of humanity, residing in one place, the civilization of western Europe and America, which frequently offers the student but one type of the social complex he wishes to investigate. Under such conditions no

perspective is possible, one may just as well set out to comprehend the behavior of man by the study of a single individual, or by introspection. In fact, so long as social studies are confined in civilized horizons, or even to historical levels, they are socially introspective and are subject to the same limitations as was psychology a hundred years ago. The history of how psychology found itself by turning its eyes outward and by the adoption of objective methods, is suggestive, since the study of culture seems to be going through a parallel evolution. Cultural anthropology made this shift long ago, and having a field to itself in the pre- and non-historic is now prepared to make contributions of general validity. It is also ready to turn its technique back upon historical cultures and thus offer an interpretation of its own. What this will be remains to be seen, but in no case should it be implied that this will in any way take the place of the special technique pertaining to history, sociology, law, psychology, *etc.* As we stated at the outset, we have in anthropology but one of the many facets, one of the vistas leading to the heart of the problem, and hence, through it, is not to be revealed the whole secret of life. Anthropology will run her course and give her interpretation of modern life, based upon a perspective of the whole, from the beginning of human time, and so, each in its own way, will history, psychology, sociology, and all the other academic clusters of problems entering into the intellectual culture complex of our civilization.

THE CULTURE CONCEPT

We are now in a position to comprehend the significance of the culture concept, one of the most recent and important achievements in anthropological research.* We see it as the culmination of investigation and the inter-

pretation of field observations. At the outset, there was little or no perspective because each field-worker knew but one tribal unit, but as the results came in, efforts were made to compare one tribal culture with others, and though these first attempts were crude, as were also the first essays at classification, their summation from year to year, and occasional overhauling, gradually brought into being an accepted procedure for handling the data. Every student of the subject soon fell into the habit of using the term "culture trait" in a vague way, assuming that every tribal culture was composed of units, or elements. As intimated in an earlier paragraph, the field observer built up pictures of tribal cultures by recording observations in behavior, regarding his task as finished only when he had followed a tribal group through every discoverable habitual procedure. Then when these observers sat down to prepare their reports, they eventually came to use one and the same scheme of presentation, which, making allowances for individual word preferences, usually falls under the main heads: speech, material culture, art, mythology, religion, social organization, property, government, and warfare. For verification, the reader need but turn to one or two culture monographs. This was the status of the tribal culture concept some ten or more years ago, at which time a more critical attitude began to assert itself. Efforts were made to analyze the content of culture still further and to define, with some precision, the indivisible element. Though, in last analysis, this attempt proved neither wholly feasible nor fruitful, it did lead to a clearer notion of what should be taken as the unit, for while the elemental trait remains, more as a theory than as a fact, there has come into general use the term "trait-complex." In this, the anthropologist frankly recognizes the impossibility of resolving a culture into its ultimate atoms, finding it easy and

profitable to single out trait-complexes for intensive study. The term, trait-complex, has the further advantage of allowing for integration among the several complexes comprising a culture, permitting an elasticity by which the range of the term may be extended or restricted, as the case may demand.

But the important thing here is not the adoption of a term, nor the clarity of a definition, but the discovery that, though there are traits that sometimes function alone, the usual tendency is for them to group themselves around some one more or less clearly objectified unit. The writer has attempted to illustrate this tendency, or principle in culture procedure, by detailed study of the maize-complex and of the horse-complex[7] to which the reader is referred. With the concrete examples before him, the reader will recognize that here is a culture process, or principle, of prime importance. We refer to the process of accretion by which a trait-complex grows and the accompanying behavior of the complex in its culture setting, which behavior shows no essential variation among all the cultures so far investigated.

To whom the first use of the term trait-complex should be credited is not clear, but well within the present decade, the term and the conception involved begin to appear with increasing frequency, so that in current writing it is well established. But the important point in this discussion is to note that the appearance of the concept marks the beginning of an analysis of culture content ending in the demonstration that modern culture, in which the social sciences find their special fields, is itself resolvable into trait-complexes of the same type as first encountered by the field anthropologist. This, then, is one of the most recent and significant trends in anthropological research, *viz.*, the understanding of a culture

[7] *Man and Culture*, pp. 111–121, 121–126.

as a living functioning complex, the development of a technique for the analysis of modern culture and the achievement of the insight necessary to the effective formulation of problems in social behavior. It is, perhaps, not too much to say that anthropologists now living were the first to achieve this insight, or to discover that such a universal human phenomenon existed. Certainly the concept of culture we have sketched here was born in field experience and has come to be what it is as a natural growth in anthropological research. And, so far as may be, though necessarily stated in terms of generalization, the anthropological concept of culture is descriptive of the phenomenon in the concrete and asserts with confidence, that whether you meet up with a nation of continental proportions or with a tribe of two hundred souls, the culture observable at any given moment, will be equally susceptible of analysis into trait-complexes of consistent behavior. This does not mean that culture is now fully understood; what it does mean is that after long and diligent preparation among the primitives of the world, and delving into the story of man's past, the anthropologists have turned upon the vastly more difficult problem presented by the culture in which we live, and carried the first line trenches with a rush. However, this initial success must not be over-rated; the real battle is yet to come. What is certain is that the anthropologist is now equipped with an effective approach to one aspect of the human problem. His culture is the ultra-human mesh of behavior, universal for mankind, observable in the lowest strata of the palæolithic world as well as in the life of today. The phenomenon he has uncovered and made real, must be considered in all approaches to a rational program for social change.

Under previous headings, we cited recent developments in the study of culture data when subjected to the

distribution method, and now we turn to the use of this geographical method in the study of trait-complexes. First, it should be recalled that the time aspect of the culture problem carries with it the stratum concept. For example, the American Indian of our time has absorbed the greater part of our Christian trait-complex, but this overlays his former religious complexes, which, in turn, are conceivably made up of strata also. So one of the important problems in comprehending a given culture is to discover and integrate these respective strata, in order that specific cases of culture change, or evolution, may be determined empirically. This is in contrast to the method followed in the Darwinian period of anthropological inquiry, when it was taken as self-evident that culture complexes evolved from the simple to the complex, and that by mere analysis of a trait-complex and the seriation of its units, the outline of the prehistory of culture could be revealed. These pioneers in culture research were not wholly in the wrong, but not being fully aware of culture as a phenomenon and lacking field experience, they could only check the results of their analyses against the general scheme of biological evolution. Yet, their great handicap was lack of data, no one had yet been able to get entirely around the culture of a single tribal group, the first essential step. Our position, today, is vastly more advantageous, as we have labored in these pages to show; and turning back to the stratum concept and the trait-complex, we find it much more effective to analyze the trait-complex into its apparent elements, then to note the geographical distributions of these elements, which in turn reveals the strata. We can thus be upon far surer ground when we have in hand a number of actual progressive changes in social phenomena, not to mention other phases of culture. The limits of this

work forbid adequate illustrations[8] in the handling of trait-complexes, and, though in the literature available, these illustrations are taken from primitive cultures, the method used in their investigation is equally applicable to the culture in which the social student operates. It is true, as previously stated, that anthropologists have confined their investigations to the primitive, leaving the whole field of contemporary Euro-American culture to the social sciences, but since it is now clear that the same fundamental processes operate throughout, the method should apply equally well to the study of immigrant groups and to well-established communities in our own country. Then, the contemporary student may see the culture to which he belongs, not merely as an isolated phenomenon, but as one unit in a sequential series, and recognize in the various social activities of his group so many trait-complexes in their respective strata.

ANTHROPOLOGICAL INTERPRETATIONS

So far we have spoken as if the method of anthropology in culture, sometimes called the historical method, was all anthropology had to offer. That is far from the truth. One might as well say that the method of genetics was all that biology had to offer.

In all the sciences of the natural history group the great problem has been one of classification, since the data are vast and one's understanding of the phenomena must come by establishing order where at first all is chaos of observations. For one thing, a somatic classification has been attempted, the systematic zoölogy of man. Another classification is by language. There are other approaches to the classification problem, but we can profitably consider the foregoing at once. For reasons well understood

[8] Clark Wissler, *The Relation of Nature to Man in Aboriginal America*, Oxford University Press, 1926.

by specialists the attempts to classify mankind somatically have not succeeded beyond a general grouping. Unless in such an approach to the problem a genetic relationship can be established, little good can come of it. On the other hand, quite strangely it seems, languages readily lend themselves to a genetic classification by falling into a large number of families with many successive subdivisions. The making of such a classification, a survey of the languages of the world, was at one time an absorbing topic, offering opportunities for surprises equivalent to the discovery of new species and raising many new problems in the distribution and relationships of man. So to a large extent, the linguistic classification has become basic, chiefly because of its objective and genetic character and its peculiar relation to the tribal group. Under primitive conditions absolute unity in speech is closely correlated with the limits of the tribal group, and thus the linguistic character becomes of more than incidental value, both with respect to social problems and to somatic questions. In fact, anything that promises to develop a genetic relation between groups will be of fundamental importance.

Turning back now to language itself, as it is often pursued by specialists, we meet with many enticing problems as to the evolution of languages and their differentiation. These are all interesting enough, but do not contribute much to our interpretation of human society. The important contribution, then, from our point of view and from that of anthropology in general, is a classification in terms of language, a phase of culture in which genetic relationships can be established.

Somewhat after the pattern of linguistic classification, attempts have been made to deal with types of culture genetically, and more specifically with social organization. However, this was given up long ago, because the units

were not objectively verifiable and did not correlate satisfactorily with tribal groupings. Morgan, for example, made what is considered one of the most successful attempts, but even here he succeeded best with terms of relationship, which at bottom is little more than a linguistic method.

The anthropological point of view in classification may then be stated as opposed to any method not capable of recognizing the tribal unit characters, whether in culture or in somatology. Whatever classification is employed must be objectively real and empirically verifiable.

The development of linguistic classification has raised a number of fundamental problems as to the functional relations between language and the other group characters.[9] These are far from being solved, though anthropology has set up a few assumptions about them, which are in danger of becoming dogmas, as happens in most sciences. These assumptions are, in the main, *a*, that, since all human beings are able to acquire any known language, there is no necessary correlation between race and speech; *b*, that, since we often find different languages associated with the same type of culture, there is again no correlation; *c*, and that, as we frequently find representatives of the same linguistic stock occupying quite different geographical environments, language is quite independent of geography. It is recognized that historical causes may by coincidence bring it to pass that race, language, and type of culture correspond, but so far no convincing evidence has come to hand that a functional relation exists. Yet much remains in doubt, for language plays the fundamental rôle in all social phenomena; it is not only the carrier but the formulator of the social world and it is hazardous to predict what the future will

[9] Sapir, Edward, *Language, An Introduction to the Study of Speech*, New York, 1921.

reveal. Nevertheless, the declaration that though linguistic characters are diagnostic and do to some extent correlate with other characters, no truly functional relation exists, must be considered in social studies.

In passing it should be said that somatic classifications have not been wholly abortive. With respect to the early remains of man they have been fruitful enough; it is only with the living that the effort leaves a great deal to be desired. In recent years anthropometry has been heralded as the lead to the solution of the problem and so piles of measurements have been accumulated, thousands of dollars spent, and much time consumed, but the solution is as elusive as ever. The mere mass of data proves inert. However, anthropometry has developed a number of interesting problems, is the backbone of human genetics, and may yet give us a workable classification. Its deeper and more fundamental aspects give us a conception of the type and the biological composition of the group; also, an intimation of the nature of variability and its relation to the environment.

THE LAW OF DIFFUSION

Turning now to culture, its objective study by the method of distribution has revealed a picture of the culture setting as a whole, and this appears to be the most significant contribution within the limits of this volume. To quote from a contemporary writer, "every local civilization is in certain respects like all civilizations, in certain others, like all primitive civilizations; then it is like the civilizations of certain very large geographical areas, continental in their sweep; it is further like the civilization of a more restricted area; and finally, it is like unto itself, in certain local peculiarities, individual and unique." [10]

[10] Goldenweiser, Alexander A., *Early Civilization, An Introduction to Anthropology*, New York, 1922, p. 123.

A careful reading of this will show that what is tated is geographical distribution, for if one takes the ulture traits found in function within a given tribe and plots their distributions one by one, the result will be in the concrete exactly what is here stated in the abstract as a general law. And a valid one it promises to be, since everywhere one looks in the world he finds just this kind of distribution, even in our own culture.

Now, the achievement of such a law, the law of diffusion one may call it, is no mean accomplishment. However, something more is involved since tribal individuality has no distribution and so must arise within the group. So to quote once more freely,[11] there are two processes here:

1. The origination of culture traits within each tribe by individual inventiveness.

2. The borrowing of such traits by neighboring tribes, or diffusion.

We have then the conception of culture as a phenomenon of human behavior, or of inventiveness and imitation, using these terms in the anthropological sense. The entire objective result of these processes gives the various cultures of the world, adequately expressed by the law of diffusion as formulated above.

Thus the contribution of anthropology is revealed, the law merely states the order and unity of the phenomena; anthropology does not attempt to explain how and why individuals invent traits of culture, nor how and why one tribe borrows from another, such problems fall outside its province and call for a different technique. It does, however, study the conditions that forward or retard the processes involved and the time sequences, as stated.

So what the method of anthropology promises is a factual statement as to the history of a trait of culture from the time of its appearance to the present or to the

[11] Goldenweiser, p. 124.

date of its extinction. These records for type traits are rapidly approaching completion, and even now, fragmentary as they are, one dare not ignore them in formulating an interpretation of life.

That the law of diffusion expresses itself in geographical distribution is, perhaps, the latest discovery in anthropology and one that promises much for the future. We may expect new and illuminating studies in the mechanics of culture distribution, the results of which will serve in interpreting the data. Even now it is clear that one type of diffusion is that for linked traits, dispersed from a common centre in concentric zones. In such cases it is not difficult to show that the form of distribution also reveals time sequence; *i.e.,* the most outlying traits being the earliest, *etc.* There are, however, other forms of distribution not yet clearly understood, but concerning which we may expect new interpretations in the near future. Once the types of distribution are completely known and their relation to the primary type established, social traits can be seen in a new light.

BIOLOGICAL BACKGROUND

But the most significant fact is that the distribution of somatic characters takes the same forms as culture traits. In the case of stature, for example, one does not find a tall people surrounded by the short, but by a belt of intermediate statures. Wherever data are available a similar distribution is observable for hair color, eye color, head form, sitting height, *etc.* In other words, the characters dependent upon inheritance, carried by the germ plasm, obey the law of diffusion no less than traits of culture. If, then, there is one universal form of distribution for racial characters and culture traits, what is its significance? The one is plainly a matter of germ plasm, and is so far strictly biological, but as we have stated in

detail, many anthropologists insist that culture is non-biological, a maze of fortuitous events, obeying no laws but its own. Yet the form of distribution is the same for both. Now, this being the case, one must concede that there is a basic phenomenon upon which both rest.[12]

Culture, as used in social studies, has been variously defined, but is universally recognized as a manifestation of human behavior. If we revert once more to our discussion of the historical point of view, which many anthropologists prefer to assume, it is apparent that a distinction is made between behavior which is biologically determined and acquired habits. The objective social phenomenon with which anthropologists are concerned is conventional and not spontaneous, or it is the form of social procedure rather than the original biologically determined response that receives attention. Nevertheless, it is recognized that all the habits and customs of a tribe, their conventionalities which in their totality make up culture, are themselves the expressions or particular modifications and developments of inborn behavior. There is no doubt such a thing as free will and the power of choice, but only within the limits set by our inborn nature and these limits set us off from the brutes on the one hand and the superhuman on the other. It is readily conceded that somewhat within these limits man can determine his culture, but in general biological perspective these limits are narrow enough. Further, the culture of man when viewed as a whole is one type of behavior, in which the human type of learning, or learning response, is dominant. Now it is true that the problems presented here are those falling to biology, particularly to psychology, but the anthropologist cannot

[12] Namely that processes so different as biological cross-fertilization and heredity on one hand and social suggestion, imitation and tradition on the other are both forms of transmission in space.—Ed.

entirely ignore them, since he must, by the very nature of his position, discriminate between what is innate and what is conventional. The historical point of view is then, as we have said, one that leads to a study of the history of conventions. So the culture study of the anthropologist is the history of conventions.

Yet anthropological research, supplemented by the work of psychologists, has shown that the processes bringing new conventions into society are those defined in psychology as inventions. Culture is then a vast social complex of human inventions and the task anthropologists have set themselves is to describe and classify these inventions, to study their distribution over the earth, and above all, recover the gross outlines of their history. The significance of this to us at the moment is that since it is the working of the inventive process that is involved throughout, and since this is an innate process, we are face to face with the basic biological phenomenon underlying all.

Further, the inventive process resides in individual organisms; so far as we know, it is a function of the individual organism, and so its fortunes are thrown in with it. It is not strange then that the form of distribution is the same for the data of culture as for somatic characters, for all in the end must rest upon the germ plasm of man. The diffusion of a type of hair, for example, is an affair of germ plasm; it is true that geography on the one hand and culture on the other, with its ironclad conventions, may modify the diffusion and set its limits, but after all the fundamental limits are set by biological conditions. Again, since culture is a manifestation of innate behavior, something carried in the germ plasm, it also will diffuse, if at all, within biological limits.

We have here, then, the unifying factor in anthropology, for while it is outwardly both biological and non-

biological, it is at least fundamentally biological. Nor can its place among the social sciences ever be more than a shadow unless it does recognize and grapple with the biological base upon which human phenomena rest.

It is a human characteristic to resent limitations. An infant not yet broken to the conventions of its tribe will react violently if a hand of restraint is laid upon him, and if when he is a man, you assert that he is subject to limits, he will likewise feel resentment, or make the same primitive response. Perhaps this is why many anthropologists rise in wrath when it is asserted that the phenomena with which they deal are fundamentally biological. They somehow feel that this is setting undue limits to the aspirations of the soul, that any form of culture man can conceive can be made a reality. Historians also often react in much the same way. But just why this phobia for the basic biological character of human phenomena should not be clearly recognized as itself a trick of the soma is indeed strange. One is reminded here of the universal trickster in folklore, with whom every anthropologist is familiar. It has long been a puzzle why a hero on the level of the gods, who is in the main the creator of society, should in the midst of his grand and noble work suddenly be seized with impulses that plunge him into the depths of vulgarity and crime. But may it not be that this is merely the recognition of the innate, and particularly the revolt against limitations, the blind rage of resistance to the challenge of the inevitable. We have so far said nothing of the rich stores of folklore in the hands of anthropologists, but nowhere else in the whole gamut of letters and science is the innate in human behavior revealed so frankly and so free from apology. If in the mind of the idealistic reader there still linger doubts as to the power and depth

of the innate, or as to the grand rôle it plays in culture, then let him read the pages of primitive mythology. And the social student, would he come into a full realization of the biological forces that underlie the subject of his choice, let him also turn to these realistic and unexpurgated word pictures of the universal human. Here he will see that when the supreme test comes, the innate smashes through the conventions society has set up as a circus rider plunges through a paper hoop, and no one is more surprised than the individual himself. So it is that anthropology in its pursuit of folklore has revealed to us the universality of innate responses and their inevitable surges against the conventional barriers erected by society.

It is not strange then that individual social students often put themselves in contradictory positions because they, as human beings, are face to face with the human problem, and so cannot be entirely indifferent as to the outcome. If the result of their researches threatens to raise barriers, to curb aspirations, to belittle intelligence, then there will come forth this old primitive response of resentment to becloud the vision. Truly the way of the social student is hard and tries men's souls. But, to return to our first problem, we now see that the universality of the law of diffusion, as we have formulated it, applying alike to culture and to somatic data, is a basic fundamental matter and so is a law of prime importance. It may be considered the one great contribution to the anthropology of our time, and its comprehension will make clear the meaning of the historical point of view and reveal the strength as well as the limitations of this method. It will also justify the attention given to distribution and to sequence, for in them and in them alone, we see the working of this law. And above all it objecti-

fies the data, thus removing it further from the individual himself and his troublesome primitive responses.

THE USEFULNESS OF ANTHROPOLOGY

From the very start the social sciences were accepted as worth all they cost, and universities hastened to make room for them. This was not so much because their usefulness was demonstrated as because the teachers of the subject frankly accepted the demand that such studies be made to contribute to an understanding of one's own society and to point the way to direct its forces intelligently. And what can be of more concern to us than our own society? Naturally anything that holds out the promise of an insight into this phenomenon will be welcomed. Yet anthropology has languished, and as we have seen, universities have hesitated to give it a place. This is largely due to the museum bias which we have explained at length. Collecting is a luxury, often a diversion of the rich, and frankly stamped as useless. Anthropologists have often taken pride in the fact that theirs was a pure science in which no one need give a thought to usefulness, and doubtless being in that frame of mind they have striven to make it so. But anthropology cannot long remain the science of the collector and the museum, for the problems that call for solution are too pressing. To quote from a recent address by Karl Pearson:

"This condition of affairs must not continue; it is good neither for anthropology, nor for the universities, nor for the State if this fundamental science, the science of man, remains in neglect. It will not continue if anthropologists pull together and insist that their problems shall not fail in utility, that their scientific technique shall be up to date, and that anthropological training shall be a reality in our universities—that these shall be fully

equipped with museums, with material, with teachers and students." [18]

But whatever may be the conditions in Karl Pearson's country, anthropology in America is about ready for its task. It may be profitable, therefore, to review the most important work awaiting the student of tomorrow.

First, there is the question of race, a great intricate tangle of contradictions and surprises, in which statesmen, reformers and students come to complete confusion. Yet this is not a new situation, for in one way and another the great military nations of the past have been confronted with the facts of race. When Egypt waxed great and powerful she reached out on all sides, laying hands upon many and divers kinds of men. That these were given some thought is made clear by the fidelity with which their facial features are depicted in her ancient sculptures. Again, when Alexander set about conquering the world, Greek thought came face to face with these same orders of men, and Aristotle, the scientific genius of his time, saw in them the same zoölogical phenomenon he observed in living things in general; to him men were mammals, with distinguishing characters, just as were horses, cattle, swine, *etc.* Skipping over another great span of history, we come to the maritime outburst of Western Europe, the discovery of Africa, India, and the Americas, when once again the world was brought to face the question, and this time it was a theological problem that came to the fore—Were these different orders of men all children of Adam and of God? The Church seems to have solved this problem to its own satisfaction, but the crisis that again brought the subject into the

[18] Pearson, Karl, "The Science of Man: Its Needs and Its Prospects," *Smithsonian Report for 1921*, pp. 423–441, Washington, 1923.

hands of science, was the development of biology at the hands of Darwin and others, and specifically the abolition of slavery. In both England and America this question stimulated discussion and research as to the meaning of man's somatic differentiations. And once again the rapid migrations of European and Asiatic peoples to America, Africa, *etc.*, brought violently to the fore by the late World War, have raised race problems. This time, however, it is the native ability of races that is questioned, their equipment for handling the complexities of modern civilization. Each of these situations has stimulated research and tends to crystallize tradition and method around the human problem which we call anthropology. So the line of research now called for is an analysis of populations, a study of racial strains, and an inquiry into the status of native ability.

If, for instance, we as a nation are to have a worthy policy with respect to immigration, the anthropologist must look carefully into a number of problems. For one, our population calls for an analytic study to determine its regional characters and the part the different racial elements are taking in the making of the nation. To this end we need a repetition of what was attempted during the war, a somatic survey of our country. There is on hand in the archives of our colleges, in the records of insurance companies, and in the hands of the army a mass of data concerning size and other somatic characters from which the expert can draw samples of the geographical and racial constituents of our population. The technique for such researches is at hand. But if one demands more practical ends, then he should turn to the problems of the clothing industry, not the least of which is the fitting of cloth to the bodies of men. Anthropologists have brought to light evidence for a shift in

the dimensions of men which threaten to bring confusion into the formulæ for the sizes and numbers of suits the trade will require. There is no such thing as fixing these standards once for all, because the size of our population is changing. When one considers the universality of clothes and the vast amount of capital invested, the practical importance of a study of bodily proportions and their distributions over the country is obvious. Again, the value of size and proportion in the matter of health, disease, and education is generally recognized. It is therefore clear that if anthropology is ready to deal with these problems upon a practical level, and we are assured that it is, then its usefulness cannot be denied.

Returning, however, to questions of national policy and racial values, we find the problems of race mixture supreme. The traditions of our country call for a grand orgy of amalgamation in which nearly all the peoples of the world have contributed and will contribute to our blood. Obviously there is a limit to this, but to know what it is, someone must study intensively the laws of heredity, seek out the results of crossing of strains in terms of health, physique, and somatic character. For this also anthropology has a technique which, supplemented by that of genetics, promises an approach to this problem. No one can deny its importance, nor the need of a better insight into the results of such amalgamation. The biological history of populations is the great new field thus laid open before us, and its development has been the work of anthropologists.

There remains, however, the even more vital question as to the effects of all this amalgamation upon the native equipment of man and its adaptation to the demands of the different forms of culture. This line of inquiry is in part, at least, the province of the psychologist. In its

schools and similar agencies our culture has set up gigantic selective machinery by which the more fit are sifted out and graded according to their promise for the carrying on of our culture, a crude selective system at best. But at the hands of the psychologist there is being tried out a technique for a more precise selection. During the war the psychologists made in a tentative way a kind of intelligence survey of the nation. Of this there is even greater need now. Psychology, so far, however, has interested itself in the special learning processes upon which the selective machinery of the school operates, whereas the anthropological problem hinges upon the whole innate equipment of man for culture. As we have stated, anthropology stands ready to show what the native responses of man do in the way of culture, to show how they have been conditioned in the perpetuation of tribal customs, once psychology and genetics have revealed them. But here again the great question is as to what is happening in amalgamation. In so far as the result relates to culture, this is the concern of anthropology, for the students of this science must formulate the problems. If again we come down to practical levels, here is the vexatious question as to how to nationalize the foreign born, they who must leave behind the culture of their youth and betake themselves to a new one. As what go on in such situations are culture processes, it is again to anthropology that one must turn for light. In any case there are at hand reliable data and a technique by which any concrete case of such nationalization can be approached intelligently. And again, as a nation, we are not infrequently called upon to deal with subject peoples, races with cultures foreign to our type, and here most certainly the science of man can contribute, for every such administrator should at least know what a culture is,

should be aware of its power, its vitality, and its inherent responses. Nor will such aid come amiss in the more sordid business of foreign trade, where first of all one must understand the culture with which he is to deal. So without going into further detail, it is apparent that anthropology is ready to contribute its quota to the cause of humanity. It is prepared to stand shoulder to shoulder with the social sciences in the approach to the most fundamental problems in human behavior.

In conclusion, then, anthropology has at hand several important techniques by which the student of man can undertake the analysis of international situations involving questions of culture; it is also ready to aid in the maintenance of mental health by the same approach; further, it is equipped to join with the sociologists and the psychologists in determining what is innate in man and what constitutes racial individuality; again with its anthropometric methods it is prepared to take up with geneticists the problem of human inheritance. In each such attack anthropology will bring knowledge of and experience with time perspective in human affairs, with the process of culture, and the geographical distribution of cultures and races. Without these it is difficult to see how satisfactory progress can be achieved. But the point of attack will be the great group of human problems now arising from the swirl of our national population with its many diverse racial elements. Old cultures are here to be made over according to new patterns, and what is innate in man is also to be recast for better or for worse. As one looks back over the career of anthropology, as sketched at the beginning of this section, he sees ample justification for anticipating new triumphs of the empirical method when the departments of anthropology-to-be in our universities concentrate upon this problem. Then

side by side with genetics, sociology, psychology, *etc.*, anthropology will make effective use of her talents, and the science of man will come into its own.[14]

[14] The above discussion places the problems relating to racial traits, both somatic and psychic, that is the problems of *physical* anthropology, side by side with the problems of culture history or *social* anthropology. The bulk of Doctor Wissler's paper emphasizes the latter, but its final paragraphs deal with the former. Since man is an animal with a culture history the product of both an organic and a "superorganic" evolution, it has seemed impossible for anthropologists to ignore either of these two aspects of his life.

All that we regard as most distinctively human belongs to man as the bearer of a culture history and the product of what Spencer called "superorganic" evolution. The life of man is a culture life, socially evolved. The "social" life is not confined to domestic conventionalities or any other subdivision of distinctively human activity, but includes all of those activities, ideas, sentiments, customs, institutions which *could never have been evolved by individuals in isolation.*

But all this so-called "superorganic" evolution is made up of responses of an organic structure. And man's physical peculiarities have their paramount importance as conditions affecting cultural life—that distinctively human life which man has only as a member of society because it is a product of social evolution. Doctor Wissler shows that the usefulness of physical anthropology results from its being a study of facts that condition social phenomena and practical social policies. So far as physical anthropology points out the ways in which these biological facts condition social phenomena, physical anthropology as well as culture history, or social anthropology, is a contribution to the social sciences.—Ed.

CHAPTER III

RECENT DEVELOPMENTS IN PSYCHOLOGY CONTRIBUTORY TO SOCIAL EXPLANATION

BY ROBERT H. GAULT, PH.D.

Professor of Psychology in Northwestern University

TWO GROUPS OF SOCIAL PHENOMENA

THERE are two groups of social phenomena respecting which recent developments in psychology have come into very close relation. The first of these comprises the phenomena of social control. The question at this point is: what are the forces within them by which men and women are brought into such alignment that they can and do coöperate with one another.

The second group comprises the phenomena of social progress, and this we conceive not merely as an increase in the number of mechanical devices to do the work of the world and not only as an advance in learning and its dissemination, but as the process of developing the forces that are referred to in the preceding paragraph; in fixing the directions in which they may be extended; and in devising methods of more and more effective coöperation amongst individuals toward ends that are valued in common and in using those methods once they are found.

THE SENSE OF UNITY

As to the first. The alignment alluded to we conceive as a certain sense of unity or of belonging together amongst the members of a group. Without it coöperation amongst men and women is at a standstill. Indeed it cannot have gone so far as to have come to a standstill!

Social behavior amongst them in such a case is nothing. Imagine, for instance, a boy of '61 drilling with a company upon a village green. If he has not at least a vague sense that he and all the others in the company are one, working for a common cause in response, all of them, to the same situation, he is only an automaton carrying a gun. There is no social life where there is no such sense of unity, and the livelier the sense the more evident is the social character of behavior.

What is this sense of unity? Primarily it is an awareness of relationship with others. This involves, in some terms or other—possibly visual—an imagery of those others; and it may be a very vague imagery at that. Indeed, after habitual relationship continuing for a long time, it is bound to be very vague or to disappear or to become so marginal that it eludes introspection to reappear vividly only in a crisis. The sense of unity is always accompanied by an emotional reaction which waxes and wanes with circumstances and attains an extraordinary intensity on such occasions as an impending football struggle or national crisis such as war.

This social unity may be amongst only the members of a family; the boys in a club; the students in a school; the citizens comprising a nation. Or a given individual may be a partner in all of these unities at once and in more besides.

Each member of such a group who partakes in the sense of unity knows out of experience how others in the same group will react to his behavior, whether it be overt or only contemplated. For example, a young man who has grown up in the midst of family life comes to know his parents and brothers and sisters very intimately because he has seen them reacting to an enormous number of situations. He is aware of their preferences, dis-

likes and prejudices even before he is able to describe them. As a consequence of all this he can and does foresee what will be their reaction of approval or disapproval to what he is doing and to the plans he is contemplating. He cannot consider a great change in occupation or profession without a lively prevision of the approving or disapproving reaction of his family or club or fraternity. One or another type of imagery forms an important part of this experience or prevision—especially in a crisis. Every other member of his group has similar experience in the same or in like circumstances. Thus we describe the sense of unity as in an individual and as diffused throughout a group. But it is diffused only in the sense that each member is possessed by it.

The sense of social unity, if it can be conceived in this manner, makes the *social mind* and the *group mind* wholly superfluous figments of the imagination. It leaves social psychology as an aspect of the psychology of the individual, open to observation by introspection and by objective methods of approach. It takes out of social psychology one of the last entrenchments of the theological conception of human behavior. It makes the transition from individual to social psychology, a process that goes on within the individual himself.

This point will be clear if we consider what we conceive as an illustration of social behavior.

A boy has pinched his finger under a falling window: he cries aloud vociferously and throws himself about, making a spectacle of himself until his ideal of manhood asserts itself. Then he takes himself in hand and his behavior is forthwith that of a man of fortitude. If his sense of unity, or, we might say, partnership with other objective or ideal persons had not arisen, he would have continued in his undignified demonstration. The boy of

'61, to whom we alluded above, was only in a minimal degree if at all a social creature until he became inspired with a sense of unity with others involving an imagery of tens of thousands of others like himself all over the country, drilling as he was doing, upon thousands of village greens, all for the same purpose and in response to the same orders from Washington. As his sense of unity becomes more and more vivid, he catches a glimpse of other young men joining the colors because he has done so, and stepping to the music in a more lively fashion because he is going at his drilling with enthusiasm. So the sense of unity as we describe it assures coöperation in the group.

THE SENSE OF UNITY NOT ALWAYS IN VIVID CONSCIOUSNESS

We do not mean to imply that this sense must always be a vividly conscious experience. The law of habituation applies here as elsewhere in the realm of human behavior. The vivid experience is a necessary temporary prop that gradually disappears and is replaced by a matter-of-course, habitual attitude as when, after years of conflict, war becomes a coldly considered business. The people have lived through the period of vividly realized unity, but their coöperation is none the less effective because they have developed the inner or psychic machinery for working together and coöperation has become habitual. But the situation must not long continue upon this basis. "Familiarity breeds contempt," and in the somnolence of habituation variations in the requirements for coöperation come and go unnoticed, and in time their aggregation brings a serious situation to pass. The era of vividly conscious unity must be stirred up after not too long intervals as a guarantee of the most effective coöperation through a long period.

FACILITATION OF THE DEVELOPMENT OF A SENSE OF UNITY

MUTUAL ACQUAINTANCESHIP

It is important to consider the factors that facilitate the development of the sense of unity. These are the "forces" of the first paragraph. It will be pertinent in this connection, too, to observe what obstructs these forces.

To begin with consider that we have no sense of unity with the inhabitants of the remote islands of the sea. No one of us is in either conscious or matter-of-course relation with them. If one of us contemplates ever so radical a change in his manner of life it never occurs to him that these islanders, even if they knew, would either praise or blame. The reason for this is, obviously, that we have no acquaintanceship with them, and consequently no common footing. The more intimate acquaintanceship becomes, the more close—all other conditions remaining equal—will be the social relationship we have described. It follows, therefore, that methods of communication facilitate unity. Telephone, telegraph, mail service, radio and language all contribute to this end. The more intimately we know how the people of our state are thinking and what they are doing with respect to situations that command our thought and action, the more closely will we feel bound together with them—and yet more so if we are aware that they are thinking and acting in response to us and we to them. The cementing of people is bound to occur where there is a mutual knowledge and acquaintanceship with one another.

COMMON EMOTIONAL REACTIONS

Beyond mere acquaintance a common emotional reaction to an ideal or set of ideals affords a powerful reënforcement in the direction of social unity. When the people of a town have arisen as one man in defense of an ideal of public decency, and have expelled a form of

vice from their midst, and when they discover through the press or otherwise that the population of a neighboring or distant town have been stirred to a support of the same ideal by reason of their own accomplishment, there is forthwith a feeling in the communities respectively that they belong together, and a disposition to go to any length in coöperation. This is nowhere more apparent than in an audience or in a crowd where each one can see with his own eyes the evidence of the emotional reaction of every other in the group to the situation or ideal that has aroused himself. This is the secret of the cementing of brethren in religion who are accustomed to meeting in one place for exhortation and worship. It is the secret, too, of a similar phenomenon that occurs when we are listening to the returns at the close of a hard-fought political campaign and when, in the course of the World War, we read each morning, the reports of towns and counties by the score that had gone "over the top" in contributing to the Red Cross, or in purchasing Liberty Bonds. This going "over the top" was evidence of a wide-spread reaction to an ideal of service to which we ourselves had just responded, and perhaps it was our own town's overtopping its allotment that had started the ball rolling.

This is the psychology at the basis of the work of the Morale Division in the World War time. When a Red Cross drive was on and when a new issue of Liberty Bonds was on sale, foremost artists were ready with their conceptions of the purpose of the Red Cross funds and the aims of the war. These conceptions were represented upon striking posters of artistic design and color. They were distributed broadcast over the country and changed from time to time. Every poster was designed to make an appeal to the emotions of men and women. There was, for instance, the Red Cross poster that illustrates a

sturdy worker carrying back a wounded soldier; threading his way among the shell holes whilst the shrapnel is tearing off the limbs of trees around him and the confusion of battle is on every side. It suggests the romance of war and stirs our courage, our spirit of daring, our pity for the fallen and our desire to do something to help him. An army of three-minute speakers, furthermore, in the theatres and churches and other places of assemblage were daily bringing the attention of thousands of people to the message of the posters. By all such means our emotional life was maintained at a high pitch, and we were vividly aware that hundreds of thousands were in an emotional state like ours.

It will always remain, no doubt, impossible to state in quantitative terms the efficacy of the posters and of the work of the Morale Division in general in relation to cementing the population and so facilitating the coöperation that brought the war to a successful issue. Suffice it to say that the leaders in Washington realized that they were powerless without a strong sense of unity amongst the people.

The very factors that the Morale Division brought to bear in war-time are operative, only less patently, in time of peace.

Constructive leaders are bringing them to bear in the Boy Scouts, the Camp Fire Girls, and in all other similar organizations. They are first conceiving those elements in every-day life that are heroic; by all means they are making them vivid; they are placing emphasis upon doing something appropriate in response to these conceptions and are taking vigorous measures of assurance that every boy and girl shall know that every other boy and girl is doing as he is doing in reaction to these conceptions, and finally that each one shall find encouragement in the thought and in the evidence that others are being

influenced by his reactions. Analogous programs are in force in schools and in churches, and the net effect of it all is to bind the young together in a psychologic body that will persist throughout the lifetime of the individual members of the body, or at least leave a disposition behind that will greatly facilitate their cohesion at future times of special need.

UNIFORMITY IN FUNDAMENTAL HUMAN NATURE

To be sure, so far as there is a uniformity of psychic equipment amongst men and women there is a facilitation of the development of this sense of unity. Great stress has been placed upon our alleged equipment of instincts that have sometimes been frankly described as so many forces analogous to those of physical science. But " forces " are mere assumptions in the first place, and second there is a growing tendency amongst physicists, for example, to regard " force " as a function of action and reaction. Similarly in the realm of human behavior there is a strong disposition amongst psychologists to do away with the concept of instincts; of instincts conceived at any rate, as so many hermetically sealed mechanisms each of which is capable of independent action. There is a tendency to do away with them conceived even as quasi-independent mechanisms analogous to the regiments that compose a brigade. These conceptions have done harm in the social sciences. They have tended to nail down the erroneous notion that there are sharp limitations to the possibility of human achievement. They have done their share toward countenancing a *laissez faire* "line of least resistance" program for the education of youth. " It is instinct and we must trim our educational sails accordingly." Hence a namby pamby character in educational method and particularly in relation to delinquent groups.

There is a tendency to substitute for ironclad instincts

an undifferentiated primary disposition to be active; or dispositions that are at least not sharply delimited from others and that become *moulded by circumstances* into a variety of forms; forms that are largely common amongst men because, in the large, the conditions of life are uniform. This brings a large body of social phenomena that otherwise are mired in speculation within the range of the objective method of study.

Those who hold this view concede that amongst lower animals and amongst young children specific instincts may and do hold sway. But at the same time they urge that as experience grows; as fixed habits take their place; as partial habits begin their ascending course; as outlooks extend and as new desires, ambitions, interests, likes and dislikes develop these instincts become buried and ineffective. This result comes, not late in life, but early; and from that time our social behavior is determined not by instincts but by everything but instincts.

OTHER FACTORS

Other factors that facilitate the development of the sense of social unity will incidentally appear if we attend now to the obstacles that oppose the cementing of a group of people and to the means by which those obstructions may be removed or made of least effect.

INTELLIGENCE LEVELS

In the first place gross differences in intelligence levels amongst a people present difficulties in this relation and prevent the fullest measure of coöperation. Obviously there is a tendency for people of approximately the same levels of intelligence to come together, to come to mutual understanding, to develop a feeling of belonging together, and hence to grow into the way of coöperating freely with one another. On the other hand, there is always a

mutual sense of aloofness between persons who are of widely different intelligence levels. This arises in part from a want of understanding, and in other part from inability to coöperate. It is of great importance to inquire how wide these differences of intelligence levels are, and what is the frequency of feeble-mindedness in the general population. All this presupposes a decision as to the criteria of feeble-mindedness.

DETERMINING THE CRITERIA OF LOW INTELLIGENCE LEVELS

To go first to the question of criteria: The term feeble-minded, including now morons, imbeciles and idiots, applies to persons who are by nature, or by accident occurring in early infancy, of such low order of intelligence that they cannot take care of themselves, and of their affairs, with ordinary prudence. Those of the lowest strata in the group are unable even to learn to speak and to dress themselves. Those of the upper levels are able to make such adjustments as these, and, by rigid training, to support themselves in a simple occupation. Their condition is conceived as, fundamentally, such a defect of brain structure as cannot be overcome or compensated for excepting—in the highest levels—by careful and prolonged training.

Mental tests, graduated by chronological ages, have been relied upon to bring to light the criteria by which this condition has been diagnosed. This reliance, however, is by no means so frequently met in the present as in the past. It was not unusual, a few years after the Binet tests, for example, came into use more than twenty years ago, to apply the term "feeble-minded" to one who has shown by such tests to be as much as three years retarded: that is, for instance, to the ten-year-old who could handle no more than the tests that were devised for the normal

youngster of seven. This, on many hands, is now held to afford insufficient evidence for the reason that it is believed that such a degree of retardation might be accounted for by a variety of causes other than quality and organization of brain tissue.

The introduction of mental tests coincided with a period in which a great deal of attention was being given to research in relation to defects of vision and hearing, and to the effects of these defects upon the nervous condition of the subject and consequently upon the progress that he is able to make toward adaptation in school and in other relations. Many other sources of irritation and infection are being brought under careful observation with respect to their bearing upon the development of mental defectiveness. Impacted and ulcerated teeth, for example, are a source of continuous abnormal stimulation to the organism and a source of infection as well. The removal of these disturbing factors has been followed by such beneficial results both as to general bodily health and nervous stability, and consequently to mental alertness that investigation into dental conditions has become a routine practice on the part of diagnosticians.

But this is only one of the many foci of infection and irritation that are potent in relation to mental development. It suffices only to mention adenoids and deranged tonsils, and ulcerations in the alimentary tract.

Within recent years an enormous amount of detailed research into the relation of the glands of external and internal secretion has been carried out, and one result has been an emphasis upon the causal relation of these factors to both bodily and mental development. It has long been known that deficiency in function of the thyroid, either by reason of its atrophy or removal, stunts bodily growth, halts mental development, and produces, on the whole, the symptoms of a type of idiocy known as cretinism.

Feeding with thyroid extract causes the symptoms to disappear, awakens mental function and in time results in mental normality. On the other hand, a super-normal supply of thyroid extract produces very complicated symptoms also. There is a lowering of blood pressure, rapid pulse, nervous excitability, flushing of the skin, increased perspiration, and increase of nitrogen metabolism. If feeding is long continued the body fat is diminished and glycosuria may result. In extreme cases there may be dilatation of the pupils, great excitement, sleepiness and tremor of the limbs.

The thyroid exerts a great influence upon the generative organs. In the young in whom there is insufficiency of thyroid secretion, sexual infantilism appears. It has a retarding effect upon the function of the liver, pancreas, adrenals and the pituitary body.

The adrenals, in their turn, secrete a substance, adrenalin, that has a profound effect upon the tissues of the body and upon mental states, particularly upon emotional life. The injection of adrenalin is a sure means of recovery from the sense of fatigue and of substituting energy in action for languid behavior.

Other investigations have emphasized the importance of the pituitary body and the pineal gland in relation to mental and bodily development. No organ or gland of the body acts in isolation. There is evidently an infinite complexity of interrelations amongst them. The normal functioning of all of them means a normal personality. Indeed, there is a disposition to support a hypothesis that low levels of intellectual life are correlated with inadequate functioning of glands of internal secretion alone. This view makes feeble-mindedness not necessarily a hereditary condition—not directly, at any rate. It has a tendency to remove it from the category of fatalistic phenomena—one that *must* appear in a descendant,

given a certain quality in the direct antecedents. By the same token it brings the condition into the class of those that may be amenable to preventive measures and to some measures of successful treatment, once it has appeared. At any rate, these are considerations that have greatly broadened our conception of feeble-mindedness and have destroyed our faith in the adequacy of simple tests by themselves alone to determine the level of intelligence.

FREQUENCY OF FEEBLE-MINDEDNESS

Returning now to our fundamental thought that a sufficient degree of uniformity of intelligence level in a group facilitates their mutual acquaintanceship and coöperation, we are, of course, interested in the frequency of feeble-mindedness, and, in fact, in the distribution of all intelligence levels in a group. To whatever extent the subnormally intelligent exist in a general population, it is a drag upon the effective coördination and progress of the entire group. Besides, it is potentially the source of very great embarrassment to the whole. It is pertinent, therefore, to attempt here an account of the extent and distribution of feeble-mindedness in the population.

One naturally turns to the United States Census Reports for whatever light they may throw upon the general question. But the manner in which the census is taken provokes a question as to the accuracy of any figure it may report upon this point. The heads of families of whom inquiry is made are not likely to report eagerly cases of feeble-mindedness in their respective houses, if, indeed, they know that they are there. The agents of the Census Bureau, furthermore, are certainly not, on the whole, skilled in making inquiry as to this particular point. Any ratio arrived at in this manner, therefore, is likely to be too small rather than too large. The same

observation may be made with propriety as to the report of the Royal Commission of 1908 in England, which states that in the general population of England there is one feeble-minded to every 305. The Massachusetts report on the extent and increase of feeble-mindedness and epilepsy in that state is frankly an estimate, and it places the ratio at 1 in 171.

Another source of evidence is in studies of groups of school children. For example, Doctor Goddard reported 2 per cent. of feeble-minded among 2,000 public school children in New York City. This figure is derived from an examination of each of the 2,000 pupils by means of the Binet Tests, which, at the time investigation was made, were just coming into vogue.

Of much broader scope is the survey of 12,000 pupils in the Toronto public schools under the direction of the Canadian National Committee for Mental Hygiene during 1919. Of the number examined, 1.5 per cent. were found mentally defective with an intelligence quotient of 75 or less. Some very retarded children were not examined, owing to their absence from school. It is, therefore, the judgment of Professor W. G. Smith of the University of Toronto that the total per cent. of mental defect, of the degree mentioned above, among the 12,000 children examined, would amount to about 2 per cent. This tends to confirm Doctor Goddard's result in New York City, and it indicates further that among the 80,000 public school pupils in Toronto there are 1,600 mentally defective children and 10,000 in the Province of Ontario. One cannot realize the barrier to social unity and coöperation that is created by such an army until one thinks of them as within a system such as the organized public schools of a city or state.

Other results obtained by the Canadian Committee show 3.34 per cent., and even 3.56 per cent., of defective-

ness of the degree mentioned, in the school populations of Guelph, Ontario, and in British Columbia. These figures are based upon surveys of groups of 2,245 and 2,273 school children. They are the highest estimates of the per cent. of feeble-minded in the public schools. The lowest, 0.42 per cent., is made in certain Australian schools in 1912.

These are widely divergent figures, and their difference is doubtless due to a lack of standardization of methods in large part, and in other parts of the personal equation amongst the examiners. Taking all the variant circumstances into account as accurately as possible, Doctor Kuhlmann has estimated that about 0.5 per cent. of the general population in the United States is feeble-minded. Since this estimate was made the World War has brought before the country both the opportunity and the responsibility for making an extended survey of the psycho-physical make-up of the drafted men. This survey is the first careful and very extended effort of the sort that has been attempted, and the result affords undoubtedly the most comprehensive picture of the psycho-physical background of a people that is extant anywhere. Nervous and mental defects, including feeble-mindedness, mental deficiencies, paralyses, psychasthenia, constitutional psychosis states, and neurasthenia were among the defects, victims of which were most commonly rejected. These are the defects that are incompatible with the strain of military training and active service. It doubtless would have been well had none of these been accepted for general military service. It is noteworthy that certain conditions, like psychasthenia, constitutional psychopathic states, neurasthenia and hysteria which are difficult to detect, were passed over by local boards and were, therefore, an exceptionally common cause for rejection at mobilization camps.

Psychological examination in the United States Army during the World War has afforded a mass of detailed data that are pertinent in this connection. There was a great difficulty in answering the question "How intelligent is the army?" for there were no standards in terms of which a statement could be made. The most familiar measures of intelligence (years of mental age as determined by the Stanford-Binet examination) were the results of studies of a small group, approximately 1,000 cases. For norms of adult intelligence the results of the army examinations are undoubtedly the most representative. It is customary to say that the mental age of the average adult is about 16 years. This figure is based, however, upon examinations of only 62 persons,[1] 32 of them high school pupils from 16 to 20 years of age, and 30 of them business men of moderate success and of very limited educational advantages. This group is too small to give very reliable results, and is furthermore probably not typical. High school pupils and business men of moderate success presumably do not represent the average American adult with respect to intelligence.

It appears that the intelligence of the principal sample of the white draft, in terms of mental age, is about 13 years (13.08). Here is a measure of the average intelligence of nearly 1,000,000 white recruits. We can hardly say, however, with assurance that these recruits are three years in mental age below the average. Indeed, it might be argued on extrinsic grounds that the draft itself is more representative of the average intelligence of the country than is the group of high school students and business men. The draft, it is true, is highly selected at the upper end by reason of the fact that men of higher intelligence became officers without being drafted or con-

[1] See Terman *et al.*: *The Stanford Revision and Extension of the Binet-Simon Scale for Measuring Intelligence*, 1917, p. 49.

stituted the greater part of the professional and business experts that were exempted from draft because they were essential to individual activity in the war. It is impossible to guess the extent of this selection with respect to intelligence. It seems quite impossible that it could have reduced the intelligence level of the draft so much as three years. Considerably less than 15 per cent. of the draft lie above 16 years in mental age. This discrepancy would mean that a very large number of men in proportion to the draft (considerably more than one man to every three of the draft, perhaps even so great a proportion as two to every three) would have been exempted because of service as an officer or because they were in some essential industry. No positive figures of the number of men exempted for these reasons are available, but there seems to be no doubt that it was considerably smaller than these indicated proportions. Undoubtedly the intelligence of the draft was somewhat lower than that of the country at large, although it is quite unlikely that the difference should be so great. It must be recalled further that there was selection at the lower end of the scale of intelligence. The low-grade feeble-minded were not in general included in the draft. This selection tends to offset the selection at the upper end, although presumably it does not completely counterbalance it, and thus to render the average intelligence of the draft more nearly representative of the population at large than would otherwise be the case.

In general, then, the question "How intelligent is the army?" is answered arbitrarily by figures that refer to the draft itself, and by arguing that the draft is approximately a representative group which is presumably a little lower in intelligence than is the country at large.

A moron has sometimes been defined as anyone with a mental age from 7 to 13 years. If this definition is

interpreted as meaning anyone with a mental age less than 13 years then almost half of the white draft (47.3 per cent.) would have been morons. Thus it appears that feeble-mindedness, as at present defined, is of much greater frequency than had been originally supposed.

The *Memoirs of the National Academy of Sciences* (XV, 1921, p. 790, Table 333) presents the best available summary of the intelligence of the draft. If it is reliable it is an indication of the intelligence level of the general population. The data were obtained by the examination of various groups or samples of the total number of draftees.[2]

Other groups forming additional samplings are as follows:

Group IV.	Negroes pro-rated by states, 19,992.
Group V.	Northern negroes from Illinois, Indiana, New Jersey, New York and Pennsylvania, 5400.
Group VI.	White officers, 15,528.
Group VII.	Negro officers.
Group VIII.	White established organization, various arms of the service, 24,205.
Group IX.	Negro established organizations.
Group X.	Special experimental group of native born white draftees, 653.

If a level of eight years mental age were adopted as a criterion for rejection it would mean the elimination of from 0.5 to 2 per cent. of white recruits and approximately 17 per cent. of negro recruits. If the level were at nine years it would eliminate 4 or 5 per cent. of whites and presumably 32 per cent. of negroes. A ten year limit would reject from 10 to 13 per cent. of white and 48 per cent. of negro recruits. It would be totally impossible to

[2] Group I is a sample of the draft of the United States at large, pro-rated by states (total 41,278). Group II is intended to furnish a basis for comparing the intelligence levels of states. In the case of a few states the pro-rata selection for the sample groups did not furnish a sufficient number of individuals to make an adequate basis. In those instances additional selections were made so that no state was represented by fewer than a thousand (total 14,684). Group III was selected by camps without respect to states (total 40,392). These three groups together make up a grand total of 96,345 of the white draft.

exclude all morons *as that term had often been defined prior to these investigations,* for there appeared to be in the draft 47 per cent. of whites and 89 per cent. of negroes who were below a mental age of thirteen years.

It would be quite impossible to have kept a civilization going if there were so large a proportion of morons in the population. The tendency now amongst students is to accept approximately eight years mental age instead of thirteen as a criterion of moronity.

MENTAL DISORDERS

Mental disorders in the general population distinct from various grades of feeble-mindedness present a serious problem from the viewpoint of the social psychologist. The best indication that we have of their frequency is found in figures from the U. S. Surgeon General's Office.

Of the 72,323 cases of nervous and mental disorders identified by the neuro-psychiatric examiners of the Medical Corps of the Army detailed in the United States, 22,741, or 31.4 per cent. were mental defectives. The mental defect was so pronounced that the bulk of these recruits were considered unfit for any kind of military service. They constituted nearly one-third of all the rejections for nervous or mental causes, and were far more numerous than any other single clinical group. If the mental defectives rejected at the local boards were added to those rejected at camps, the total number of individuals seriously handicapped by mental defect brought to light by the mobilization reaches 26,545.

But while the 26,545 undoubtedly represents the bulk of the mental defectives originally called to the colors, it does not represent all of them. It does not include the cases (aforementioned) found in France and returned to this country from the A. E. F., or those found at the

demobilization examinations. Also, some were discharged under a different diagnosis than mental defect; some were disposed of directly by the court. Also, numerous borderline cases were accepted by the examiners. Some of these higher-grade defectives became part of the army, settled to low strata of usefulness, and served through the war.

The most important question arising from this inquiry is: How many mental defectives are there in the United States? The answer to it, vouchsafed by the army figures, while perhaps not absolutely accurate, may not be far from correct. If the number of men examined be approximately 3,500,000 there would be a ratio of 6.5 defectives for every 1,000 men examined. The number of cases discovered at the local boards is so small that the preceding ratio may be used in estimating the number of mental defectives between the ages of 21 and 31 years, and the ratio of 6.5 per thousand would give, for this number, 65,650 male mental defectives of the given age period.

If mental deficiency ran uniform among persons of all ages, there would be 353,210 male defectives in the United States; if uniform for the ages between 18 and 45, there would be 164,710 male defectives in this group.

As a matter of fact, we know that mental defect by reason of the high mortality incident to it, especially in youth, has a greater frequency in groups under 18 years than in those over that age. So it seems evident that the estimates drawn from adults would understate the number as related to the entire population.

If the foregoing analysis is correct, somewhat under 1 per cent. of the general population may be assumed, on a very liberal basis, to be of such low intellectual level as to be classifiable with the mentally deficient—morons and lower.

Percentage Comparison of Mental Age of Groups From the Draft
(From *Mem. Nat. Acad. Sci.* XV, 1921, p. 790)

Mental age	White draft, groups I, II, and III		White draft, Group X		Negro draft, Group IV		Sheridan white individual examination		Sheridan negro individual examination		Grant white discharge		Grant negro discharge	
22–22.9	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum	Distribution	Sum
22–22.9	0.05	100.0	....	....	....	....	....	....	....	....	....	....	....	....
21–21.9	.07	99.9	....	....	....	....	....	....	....	....	....	....	....	....
20–20.9	.08	99.9	....	....	0.01	100.0	....	....	....	....	....	....	....	....
19–19.9	1.5	99.8	0.9	100.0	.04	100.0	....	....	....	....	....	....	....	....
18–18.9	2.3	98.3	3.7	99.1	.10	100.0	0.1	100.0	....	....	....	....	....	....
17–17.9	3.9	96.0	7.3	95.4	.27	99.9	.3	100.0	....	....	....	....	....	....
16–16.9	6.1	92.1	8.4	88.1	.79	99.7	.3	99.7	....	....	0.7	99.8	....	....
15–15.9	9.3	86.0	9.8	79.7	1.7	98.9	.3	99.4	0.2	99.8	0.7	99.1	....	....
14–14.9	13.6	76.7	12.0	69.9	2 8	97.2	.4	99.1	.8	99.6	1.4	98.4	....	....
13–13.9	15.8	63.1	10.7	57.9	5.4	94.4	1.3	98.7	1.4	98.8	0.7	97.0	....	....
12–12.9	17.0	47.3	12.6	47.2	10.0	89.0	3.8	97.4	2.7	97.4	0.7	96.3	....	....
11–11.9	12.7	30.3	10.7	34.6	15.0	79.0	10.7	93.6	4.3	94.7	0.7	95.6	....	....
10–10.9	7.6	17.6	10.4	23.9	16.0	64.0	21.9	82.9	9.9	90.4	3.5	94.9	....	....
9–9.9	4.7	10.0	9.5	13.5	16.0	48.0	27.0	61.0	22.7	80.5	9.2	91.4	0.6	100.0
8–8.9	3.15	5.3	3.4	4.0	15.3	32.0	21.2	34.0	20.8	57.8	15.6	82.2	4.4	99.4
7–7.9	1.75	2.1	.1	.6	8.5	16.7	8.3	12.8	24.9	37.0	29.1	66.6	11.4	95.0
6–6.9	.20	.4	.3	.5	5.2	8.2	3.5	4.5	9.3	12.1	23.4	37.5	22.8	83.6
5–5.9	.10	.2	.2	.2	2.1	3.0	.6	1.0	1.6	2.8	11.3	14.1	25.3	60.8
4–4.9	.04	.1	....	....	.55	.8	.1	.4	.6	1.2	2.8	2.8	24.1	35.5
3–3.9	.05	.1	....	....	.26	.3	....	.3	.4	.6	....	....	9.5	11.4
2–2.9	.01	.0	....	....	.04	.0	.3	.3	.2	.2	....	....	1.9	1.9
1–1.9	....	....	....	....	....	....	....	....	....	....	....	....	....	....
No. of cases....	93,955		653		18,891		690		514		141		158	
Median mental age.....	13.15		13.25		10.1		9.6		8.9		7.4		5.6	

Those of this group who are at any time and place confined in institutions and so are in a very large measure removed from the possibility of obstructing the community as a whole, are the lowest grades of feeble-minded. Kuhlman estimated that 18 per cent. of the feeble-minded were in confinement at the time he made his analysis, and that this included but 2 per cent. of the highest grade, the morons. But those of the highest grade, partly by reason of the fact that they are not easily recognized, are a particularly embarrassing element in any community. They may be pleasing personally. Those of the so-called verbal type, for instance, make a good impression with the result that they make their way into situations for which they are not fitted.

But after all our statistical reports upon the "intelligence level" of adults it is of fundamental importance to keep this qualification in mind: that whether we talk of a mental age of 13 years or of 16 years, more or less, as the general level of adult "intelligence," we cannot be *speaking in terms of absolute values.* The values are relative—and relative to the "intelligence levels" of children of given chronological ages. But children and adults differ so widely in point of background and hence in outlook, disposition and behavior, that it is extremely doubtful whether they are comparable, especially in the respect we are considering here. Indeed in our relations to adults and to children, respectively, as educators or as superintendents in any capacity we assume wide differences between juveniles and adults in respect to all their reactions to the same conditions, and the assumption, in practice, is justified.

Furthermore, we believe that in our testing for "intelligence levels," whether of children or adults, hitherto, we may not have been getting at "intelligence" at all (perhaps not more than glimpsing it) but have been

testing *alertness* instead. That adults, even of broad experience and high social station, usually fare ill in the tests as compared with children and adolescents supports us in this belief. But employers and others who have for long periods been close observers of large numbers of men engaged in making their adjustments to complicated situations have undoubtedly found that *alertness,* apart from certain traits of character such as accuracy, persistency, honesty and good humor, is, in the long run, of very minor significance.

In this connection we believe it is in keeping with sound judgment to withhold conclusions at certain points in the reports upon the use of army tests to determine the relative intelligence of large groups of recruits; to withhold it until we can answer, for example: "What is the probability that many thousands of white men from our remote Southern highland regions, and other thousands of negroes from the plantations of Georgia, Alabama, Mississippi, Louisiana, *etc.,* have had the experiences that would make it likely that, in a picture completion test, they would insert a *filament* in the outline of an electric bulb and a *net* in that of a tennis court?" But these are only isolated instances. The details of any test should be narrowly examined before it is put into practical use, with a view to discovering what are the possibilities of reaction to its several sections, on the part of groups of people who are widely separated from one another in experience and geographically. And finally, when these possibilities shall have been stated, a scheme should be invented by which suitable allowances may be made uniformly when one sub-group is compared with another. A thorough procedure is complicated!

If the frequency of mental defect in the general population is, as the foregoing analysis indicates, approximately six-tenths of 1 per cent., or six in a thousand, it

appears to be a negligible factor. If the remainder of the total can develop the unity amongst themselves that we have earlier described as the *sine qua non* of social life, the six-tenths per cent. can be ignored. But when groups representing this minority are brought together in one place; and when we attempt to handle these groups to rehabilitate them as individuals or to coördinate them with other groups, they become objects for very serious consideration.

DELINQUENTS AND CRIMINALS

Take for instance groups of juvenile delinquents and criminals. The frequency of feeble-mindedness in these classes has been the subject of many debates and estimates ranging for juveniles from 7 per cent. to more than 60 per cent. The estimates were made upon the basis of examination of the population of juvenile reformatories and the personnel of the daily grist of cases in juvenile courts. The average has been set by competent observers at 45 per cent. to 50 per cent. Some difference in frequency amongst localities occurs, and should be expected owing to variations in the practices of the courts in the matter of commitment, to different methods and standards in use by examiners, to the nature of the population in the localities respectively, *etc.* The drift of opinion amongst investigators is undoubtedly toward the lower figures. Of 1212 juvenile delinquents in Boston, 7 per cent. have been reported as definitely feeble-minded. It is important to observe, by the way, that of this group of 1212, 8 per cent. were described as of supernormal intelligence level, and that the whole group presents a fairly normal distribution—somewhat skewed toward the lower levels.

Investigations by Doll and Adler into the prevalence of low levels of intelligence amongst the prison population of New Jersey and Illinois, respectively, and by

Murchison covering a wider range, indicate that the frequency of feeble-mindedness amongst criminals is not greatly in excess of that in the general population as shown by the work of the psychological division in the United States Army. This represents a very substantial reversal of opinion, and with other data, it leads to a very important conclusion: that for bringing these classes into unison and coöperation with the whole mass—or for preventing them from getting away from that unison —we must not forsake emphasis upon fundamental processes of education and training in hard work. For by such means we all develop habits and inclinations toward social coöperation.

OCCUPATIONAL LEVELS

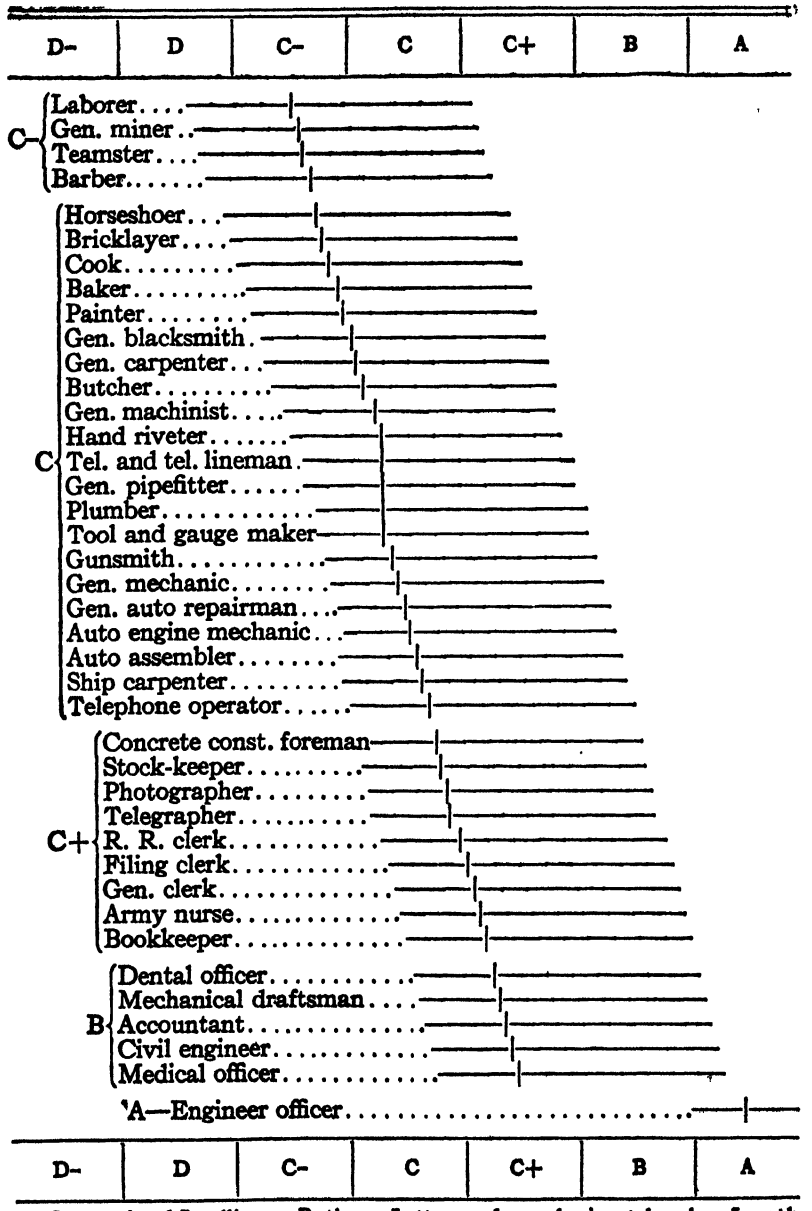
It is probable that the distribution of the population amongst the professions and occupations represents a tendency of individuals to adjust themselves on the basis of intelligence levels. If this is true it offers one explanation of the unity or cohesion of occupational groups and of the close coöperation amongst their members. The most comprehensive data bearing upon this point are to be found in the records of the United States Army psychological examiners.

There seem to be four or five occupational levels amongst the recruits according to the results of psychological testing. The highest level might be termed the professional level, and is probably subdivided into two parts—those professional groups having very high educational and professional standards (median intelligence rating "A") and those professional groups having slightly lower educational and professional standards (median intelligence rating "B"). The next lower level contains such occupational groups as clerical workers, technical workers, and probably those skilled mechanics

and skilled operatives who because of high average intelligence and leadership become foremen (the median intelligence of this level is "C+"). In the next lower level we have apparently a larger number of occupational groups than in any other. The bulk of these fall under the heading of skilled mechanics and skilled operatives and the semi-skilled worker (median intelligence of this level is "C"). The lowest level is next and contains those groups that may be characterized as unskilled labor (median intelligence of this level is "C—").

When we are considering the data on which the above graph is based, it is extremely important—and this the army workers realized—to make allowance for the fact that in many instances, the frequency of which can hardly be estimated, highly intelligent and skilled workmen in many occupations and professions were exempted from the draft, and that the records they might have made do not enter into the calculations. Such exemptions applied to "necessary highly specialized technical or mechanical experts of necessary industrial enterprise." Undoubtedly, too, the preference given to men of family in granting exemptions has operated to leave out of the calculations, on the whole, a host of the more intelligent men. After all allowances have been made, however, as we have already said, the figures doubtless represent a tendency toward adjustment to occupations and professions within the social organization on the basis of intelligence.

But again we must emphasize the point that it is not only on the basis of intelligence that men adapt themselves to occupational levels—intelligence whether in the sense of mental alertness, of large funds of general or of specialized information, or of any other commonly accepted criterion. On the other hand, it is one of the commonest of phenomena to find individuals striving to make adaptation to occupational or to professional levels



Occupational Intelligence Rating. Letter-grades on horizontal scale. Length of bar for each occupation is midrange of 50 per cent. (distance between first and third quartiles); median point is shown by a cross line. Classification is that of Committee on Classification of Personnel.

that, judging from their qualities of intelligence, are beyond their reach, and ultimately establishing themselves securely. This is one of many conditions that make a progressive civilization possible. The intellectual qualities of the East Indians, which are generally recognized, have not yet enabled them to fit into the occupations that western civilization has been carrying to their doors for upwards of a century, and the explanation of the failure lies, apparently, in those character traits, the ensemble of which are described as will.

But inspection of the chart suggests that differences in intelligence level amongst occupational groups is not sharp—excepting between the lowest and the uppermost groups. And maladjustment to the occupational or industrial life of the day can hardly be laid successfully at the door of low intelligence levels. No one has ever advanced the claim that the failure of the East Indians to adjust themselves to the industrial life that England has carried to them has been due to a low level of intelligence. On the other hand, the English leaders and others who have intimate dealings with them recognize their high level of intellectual quality. And the unrest and spirit of non-coöperation that is more or less prevalent in every age cannot be assigned to a low degree of this quality. At any rate the non-coöperators in the United States Army —if the psychological tests present a true picture—are of high grade in this respect. The following table compares them with samples of the draft as a whole.

Per Cent. of Intelligence Ratings of Conscientious Objectors in Isolation at Fort Leavenworth Compared with That of the White Draft, Groups I, II and III

	E, D−	D	C−	C	C+	B	A
Religious	5.0	5.0	20.0	20.0	15.0	25.0	10.0
Political		11.7	11.7		11.7	5.9	50.0
Total White Draft ..	2.7	8.3	16.4	10.8	13.5	16.4	32.6
Groups I, II, III ...	7.0	17.1	23.8	25.0	15.0	8.0	4.1

The data of the sort to which we have made reference in the foregoing lead to very important results. Evidently the most potent causes that lead to maladjustment of every sort must be sought elsewhere than in intelligence levels—so far, that is, as these causes are inherent in the personality.

MALADJUSTMENTS ORIGINATE IN CHARACTER TRAITS

There is a rapidly growing disposition to find them in what are loosely called character traits; in psychopathic trends or dispositions; unstable constitutions, psychoses, *etc.*, distinguished from the freak disorders already referred to; and these are conceived not as fatally leading to criminal behavior but as presenting a condition that makes it easy for stresses from external factors to induce a break-down and abnormal behavior. In the unstable are certainly fertile springs of mental disease, of ineffectiveness in daily occupation, probably of much of the unrest in every generation, and certainly of a deal of criminal behavior. In periods of stress upon the individual or upon the group as a whole these instabilities most apparently bear upon adjustment.

The immense importance of these considerations for our viewpoint appears in the interpretations offered by psychiatrists of the sharp increase of insanity rates in the army, especially in time of war.

The world over, insanity is rated as being approximately three times as frequent, even under peace conditions, in the army as in the civil community. Those who see nothing but evil in armies may construe this as proof that army life produces mental disease. But another explanation seems nearer the truth. It seems a more reasonable hypothesis that the army demonstrates constitutional incapacity and weakness rather than creates mental disease; that, under a service which requires a

more robust mental stability than do some of the varied opportunities of civil life, slightly unbalanced persons, who might get along fairly well in a suitable civil capacity, are immediately detected as not fully fit for an army, and so discharged from it. A large percentage of the soldiers who break down mentally have, before recruitment, already either passed through nervous episodes which required sojourns in sanatoria, or through periods of mental distraughtness which interfered for a time with the usual routine of their lives. That these interruptions in activity are symptoms of constitutional unsoundness rather than initial attacks of mental disease, is borne out by the fact that the recovery rate from insanity in soldiers is nearly twice that in civilians. Inferences drawn from statistics, to be informative, must be considered with some knowledge of the purpose for which the statistics were gathered and the way they were collected. For its own safety, a military organization must, sooner or later, identify and count its undependable persons. In civil life there is neither demand nor opportunity for such a minute survey of mental health. Civil communities count only the insane who actually require confinement, and so even in the best-surveyed states, the registered insane are well under the actual number; in those states which provide inadequately for the insane, and keep them herded in almshouses or jails classed as paupers and criminals, the insanity rate falls far below the normal rate of one insane person for every thousand of adult population. But, obviously, a rate so arrived at is untrue and misleading.

The army rate of insanity, three to every 1,000, high as it seems, remains at that level only under peace conditions and only then when the troops stay at home. Foreign service causes it to go up, even in peace. For example, there is more insanity among our troops serving in China

than those stationed at home. Under war conditions the normal rate rises. This cannot be entirely explained by the actual hardships of war. It must be partly explained by the same emotional factors as those that upset civilians. The outbreak of war, like the recurrence of such allied catastrophes as earthquakes and conflagrations, dislocates all mental operations. To be harmonious, mental actions must be in accord with actual conditions, and during the process of a sudden and violent readjustment of new conditions the mind undergoes severe tests of its resistance. Some cannot make the adjustment to war-times at all, as is shown, at the outbreak of war, by the increased number of old persons who die, by the increase in apoplexy, and by the fact that many persons who were able to maintain their equilibrium under ordinary conditions find their way, as though called by the clarion, to asylums. In countries such as England and America, in which three years ago war seemed like some legend, war brings with it to many a collapse of moral support and a complete transmutation of ethical values. They are suddenly told to renounce their cherished belief that the world has reached a point of perfection where wars are impossible. They become much depressed, and face the alternative of making some personal adaptation to the new and ugly condition, or of going mad. Some find their relief in believing that this marks the end of all thought-out destruction; in others the early distress is replaced by a welling martial spirit as they realize the actual peril of humiliation of their own country. They thus construct for themselves psychological defences of some kind, although few who are not actual combatants can do so completely, as is shown in the falling off in all original work not directly connected with national defence. The compensation most commonly arrived at is the sinking, for a time, of personal

considerations. National interest absorbs all others. Under its stimulus, professional and social differences fade away and exclusiveness becomes less a goal. Even butlers find their long-deferred opportunity to converse. There is an emotional desire for action, to do something for the common cause, to help no matter at what personal sacrifice. In Germany, at the outbreak of the World War, the luxurious sanatoria lost most of their wealthy patients, and in one prison the complaints of the prisoners diminished by half. Under the steady daily routine of discipline and service and sacrifice, as organization replaces enthusiasm, these emotional reactions became less conspicuous; and as war becomes a grim business, the whole nation settles down to its work, accepting its hardships and sorrows more and more as a matter of course. That people live with more temperance and less leisure may explain the strange contradiction that the admissions to civilian institutions for the insane, which go up at the beginning of a war, sink below normal finally.

The struggle to attain a personal adaptation, which disturbs the civil population, must also in a measure account for the increase in insanity among soldiers at the outbreak of war. It is greatest during the earlier months —that is, during mobilization and training, before the fatigue and exposure and exhaustion of continuous fighting. With the exception of campaigns carried out in foreign countries under unusual conditions, insanity is noted most at the main bases and diminishes with an actual approach to the front. Under the exactions of discipline, of prompt obedience, or giving up or doing without what he prizes, the individual who is physically and mentally sound usually experiences a distinct gain from the new form of life. But such measures are not always so successful in persons who are distinctly neuropathic. They may think themselves unjustly treated, feel

they are persecuted, or may find themselves falling short of the expected, and thus be brought to a fuller realization of their own inadequacy. They become much depressed in this way and their minds become troubled, less over the present situation, perhaps, than over the past problems of their own life, which in civil life, with its protection and possibilities of avoidance, they were able to compensate for. It has been noted over and over again in this war that soldiers, in their mental distress, referred less to immediate issues than to facts in their own past conduct and relationships.

The figures, which show a three-fold increase during the war of a disability which strikes harder at military effectiveness than any other medical disability, *are drawn from the cases of actual insanity only. They by no means express all that armies suffer by reason of mental disability.* Among other conditions which, while not classified as insanity, are allied to it, both in causation and effects, are two well-known neuroses, neurasthenia and hysteria. Of eighteen United States Army officers retired for disability in 1915, four were retired for neurasthenia. It is never possible to define exactly the limitations of these two neuroses, but they are generally understood as indicative of mental worry or of anxiety, or of shock; they are essentially recoverable and do not correspond to the general symptoms of insanity. They are always frequent in armies even during peace, and are more apt to arise at the front than are cases of actual insanity. By hysteria is usually understood a mental state which, more or less independently of consciousness, arouses physical symptoms or dictates some specific behavior for the purpose of obtaining a personal advantage or avoiding a disagreeable situation. The hysteric, without realizing it, shams illness for an end, under the various circumstances which

make illness an asset rather than an incubus, and which changes the normal impulse to get well into an impulse to stay ill, until certain disagreeable conditions are removed. In civil life it is found in many of the ailments of children, among plaintiffs who are suing for damages for personal injuries, and as a classical means for one party to a matrimonial contract to keep the other in hand. Armies have always had to contend with it as the soldier's way of signifying his unwillingness to endure longer. It even gets into his slang, as when he says he is sick of it. The appeal for relief is expressed not in words, but in physical terms of the situation itself. Hysterical blindness is a mute way of stating unwillingness to look any longer at horrible sights, deafness a refusal to hear any longer the explosions. The paralytic refuses to stand up or go, and the tremors, speech defects, and other symptoms of hysteria are a way of saying, "Don't you see how ill or badly injured I am?"

It is reasonable to suppose that the World War, by increasing excitement, anxiety and grief, has been a precipitating factor of no small importance as a cause of mental disease.

Doctor Horatio M. Pollock's analysis of statistics in the State of New York affords pertinent data in this relation.

INCREASE OF INSANE IN INSTITUTIONS

The statistics of the institutions for the insane in New York State are compiled by fiscal years. Prior to 1916 the fiscal year ended on September 30. Since that time it has ended on June 30.

The yearly net increase in patients in all the institutions for the insane in the state since 1911 has been as follows:

Fiscal Year	Net Increase
1911	653
1912	662
1913	1,060
1914	691
1915	939
1916 (9 months)	918
1917	1,183
1918	937

The net increase in patients during the four years preceding the war was 3,066, a yearly average of 767; during the three and three-fourths years following the outbreak of the war it was 3,977, a yearly average of 1,061. The difference between the increases in the two periods was quite remarkable, but it is accounted for in part, at least, by the accumulation in the hospitals of deportable aliens who could not be taken to their homes in Europe while the war was in progress.

Additional light is thrown on the subject by the following tabulation showing the ratio of patients under treatment to the general population of the state from 1908 to 1918.

Insane Patients in All Institutions at End of Fiscal Year

Year	Number	Per 1,000,000 of general population of the state
1908	30,457	349.6
1909	31,540	352.1
1910	32,658	358.3
1911	33,311	361.0
1912	33,973	363.6
1913	35,033	370.4
1914	35,724	373.2
1915	36,663	378.4
1916	37,581	383.4
1917	38,764	391.9
1918	39,701	395.7

It is seen that the rate per 100,000 increased 11.4 points from 1908 to 1911; 12.2 points from 1911 to

1914; and 22.5 points from 1914 to 1918. The rates are based on the Federal Census of 1910, and the State Census of 1915, and estimates made therefrom for the other years. As immigration has been greatly reduced by the war and as many men have been removed from the state for military purposes, it is probable that the estimates of population for 1917 and 1918 computed according to standard methods are too high. If this be true, the ratios of the insane to the general population for these years as given above are correspondingly low.

INCREASE IN FIRST ADMISSIONS

In New York State first admissions have been carefully distinguished from readmissions since the beginning of the fiscal year of 1909. We are therefore able to compare the rate of first admissions during the war period with that of the years immediately preceding the war.

First Admissions to All Institutions for the Insane in New York State, 1909–1918

Year	Number	Per 1,000,000 of general population of the state
1909	5,785	66.4
1910	5,944	65.2
1911	6,228	67.5
1912	6,300	67.4
1913	6,650	70.3
1914	6,789	70.9
1915	6,690	69.1
1916 (9 months)	5,269	53.8
1917	7,340	74.0
1918	7,244	72.2

The average annual rate for the four years, 1911–1914, was 69.0, and for the three and three-fourths years from 1915–1918, 71.7. For the reason stated above, it is possible that the rates given for 1917 and 1918 are too low. . . . .

CHANGES IN THE PRINCIPAL CLINICAL GROUPS

A closer view of mental disease in the state during the war period may be obtained by examination of the varying distribution of the principal psychoses over the past ten years. For this purpose we take only the first admissions to the civil state hospitals and select the senile, paretic, alcoholic, manic-depressive, involution melancholia, dementia præcox and psychoneurotic groups. Together these constitute about 70 per cent. of all first admissions.

First Admissions with Certain Psychoses, Civil State Hospitals, 1909–1918

Year	Senile	General paralysis	Alcoholic	Manic-depressive and allied forms	Involution melancholia	Dementia præcox and allied forms	Psychoneuroses
1909	606	658	561	574	207	1181	44
1910	615	815	581	769	143	1015	61
1911	583	758	580	826	143	1031	66
1912	596	719	567	854	119	1129	74
1913	594	768	572	924	133	1250	105
1914	542	774	464	880	188	1445	106
1915	570	814	345	879	165	1663	73
*1916	486	640	297	846	164	1173	57
1917	585	866	594	1136	201	1786	77
1918	652	913	354	976	219	1883	83

* Nine months.

Computing the average annual admissions for the four years 1911 to 1914, and for the three and three-fourths years 1915 to 1918, we have the following results:

	Average annual admissions 1911–1914	Average annual admissions 1915–1918	Per cent. of increase or decrease
Senile	579	611	5.5
General Paralysis	755	862	14.2
Alcoholic	546	424	22.3*
Manic-depressive and allied forms	871	1023	17.5
Involution melancholia	145	200	37.9
Dementia præcox and allied forms	1214	1735	42.9
Psychoneuroses	88	77	12.5*

* Decrease.

Referring to the foregoing figures we notice a slight increase in senile cases and a more marked increase in cases with general paralysis. The etiology in these groups is well known and it is probable that the war is not responsible for the increase to any great extent.

In the alcoholic psychoses the decrease in cases might have been influenced by the restrictions placed on the liquor traffic during the war, but a marked decline in the influence of alcohol in causing insanity was noted the year before the outbreak of the war. The reasons for the rise in the number of cases in this group in 1917 and for the sudden drop again in 1918 are not known.

In the manic-depressive, involution melancholia and dementia præcox groups the increase in the annual number of admissions during the war period is quite striking. In dementia præcox especially the change has been remarkable. Part of this increase may be due to modifications in diagnostic principles, but in the main the figures may be taken at their face value.

The influence of the war in bringing the constitutional cases of mental disorder into the hospitals is a matter of conjecture. *It seems but reasonable to ascribe a part of the increase in the annual admissions in these groups to the mental conflicts arising from circumstances connected with the great war. Social and economic changes produced by the war may also have a bearing on the matter.*

The annual rate of first admissions of the psychoneurotic group decreased during the war period. However, as this group is so small and is subject to such marked variations, no significance can be attached to the change during the war period.

ISMS AND FADS AND UNREST

But psychic instability finds many other avenues through which it makes its appearance when thousands together are contending to effect adaptation on their part

to the conditions of daily life. They easily become followers of the *isms* and fads and radical movements of the day (what the conservative describe as "isms and fads and radical movements"), sustained often by a vague sense of being in the front ranks of the procession. The more brilliant among them may be sporadic local leaders at least, and altogether they are an almost ready-made audience for such leaders, "the apostles of unrest," and even for the balanced and thoughtful student who now and again proposes a program for social reconstruction. But they contribute no steadying morale; on the other hand they are sources of embarrassment to many an institution, the personnel of which may be earnestly attempting to do the best toward keeping abreast with the needs of the day.

One would be going quite too far, however, if he were to say or imply that all unrest in industry and in society generally is attributable to psychic instability—or if the implication were made it should be accompanied by the admission that in many relations such psychic conditions may be an asset rather than a liability. Certainly, at any rate, one cannot off-hand draw a line between those natures that make inconsequential apostles of unrest and their followers, and those other natures that make up in their respective times the grandly discontented Socrates, Jesus, Waldensians, Albigensians, Martin Luther, the fathers of the English Bill of Rights, and the fathers of American independence. Without such "apostles of unrest" as these we should soon become hopelessly bound up and entangled in our conventional states.

If unrest is any more prevalent in our day than heretofore, it may be for the reason that the masses of men and women are thinking more than they have done in the past—and this whether they are victims of unstable natures or not. But it is for the additional reason that in our generation great masses of people have experienced

profound and sudden dislocations in their social and industrial life. In other words, old established adjustments have been wrecked or severely strained, and these circumstances have carried with them the urgency for new adaptations.

In the course of the World War, for illustration, hundreds of thousands of men almost literally awoke on a morning to find themselves no longer in the furrows, before the blast furnace, or behind the counters, but in a military camp and overseas, thrust with breathless speed into conditions in which not even their lives were their own. Other hundreds of thousands, not in the military service, were dislocated from their accustomed occupations to fill the gaps left by those who had gone, and other gaps like them created by the extraordinary expansion of industry as an incident to the war. The new adjustments had by no means been completed when suddenly abrupt cessation of hostilities dislocated them again and made new adaptations necessary. Those who had lately come into industrial life where they saw a possibility of realizing their wish for economic independence, for elbow to elbow association with others of their kind, and for the feeling of coöperation with others in the accomplishment of results that appeal to the senses—creating, for example, a monster gun or shiploads of munitions—had to return to the farm and store where they were soon faced by conditions of depression. Those who had gone into the military service—particularly into its most active phases—returned to what seemed to them the unbearable monotony of farm and village and factory life where the contrast at once made them feel intensely the grip of the wish for excitement and action which war inevitably stimulates, both in those who are actually in the fight and in those who are in prospect of engaging therein, and whose imagination is continuously stimulated by contact with

those who have already been at the front. Social recognition which all crave by nature, and to which the soldier probably felt he held a title by reason of his service, was undoubtedly short of expectations in the experience of hosts of men. By reason of industrial depression, actual or foreseen, employment and wages were insecure. All in all the war period and the years immediately following were times of extraordinary dislocations, that entailed indescribable strains incident to adjustment and untold disappointments of some of the deepest motives of human nature—the wishes, on the part of ambitious folk, for independence, for social recognition, for novel, exciting experience or romance.

So in any case unrest is interpreted as a symptom of failure in adaptation; of unrealized wishes for security of wage and employment; for freedom to go about in search of contacts with novel situations, and, as a corollary to this, for release from what has become the hum-drum of commonplace tedium of the occupation at hand; for active contacts and participation in the affairs of institutions and communities; and for recognition as demonstrated by the level to which the individual has attained in the councils of his own group and class by the consent of his co-laborers, and in those of other groups and classes. These wishes may not become vocal; they may not even be definitely conscious as one consciously wishes for clearing weather in order that the morning may be suitable for hunting or fishing, but it is present none the less, and is a symptom of ill-adaptation to the complex circumstances surrounding.

Among the less intelligent, unbalanced, or unstable folk of any age, the sense of unfulfilment which is the vague conscious sign of inner conflict, finds expression in more or less bizarre behavior; in grasping at straws thrown out by leaders of circumscribed vision, it may

be. But in the case of the more intelligent and poised, it is not so. There comes to their attention now one and now another aspect of their present situation, trade or profession, that is of sufficient interest to make the case bearable, and even more than just bearable. They soon see attractive pictures in clouds of smoke and discover an element of humor in the contacts of men in the office force. They so bide their time and occasion for making the adaptation for which their nature is pushing. The unstable lack the balance needful for such compensatory behavior as this. They must break away now and realize the end of their inner urging at once. This may take the shape of fixing against all comers upon an uncompromising individualistic ideal; in other words, of an utter blindness to all considerations that arise in the minds of others, the mass of intelligent folk, who believe that ideals that are held in common are conditioned and grown out of circumstances that are common, oft-repeated experiences; and that in crises the herd must be next to unquestioningly supported in the expectation that in the long run new occasions will teach new duties to all.

HABIT FORMED TRAITS

But the ill effects of maladjustment to the social organization flow also from habit formed traits. Indeed it is possible that such peculiar tendencies or readiness for reaction as have been implied in the foregoing discussion are—many of them—properly classified as habitual. Certainly we are justified in considering our mental capacities, even, in their concrete practical operation, as habituated forms of behavior. We take this position in effect each time we state the proposition that capacities cannot be improved but that we can acquire the benefit of improvement by training in the art of using the capacity. It is better than a plausible hypothesis that the forests con-

ceal many a woodsman who possesses the natural capacity that, had it been trained appropriately, would have accounted for a highly competent mathematician, scientist, or follower of a practical art. In other words, what the capacity lacks in such an instance, is the support of a complex of acquired habits. This hypothesis is supported by Doctor Cattell's *Statistical Study of Men of Science* in America, and by many a casual observer, who now and again finds, in the more obscure walks of life, an individual of inquiring disposition, keen observation, and originality.

This consideration prompts the thought that those who live and grow in the midst of conditions that are unfavorable: conditions, that is, that thwart the "wishes" of human nature for security of maintenance, for release from hum-drum and contact with the unfamiliar for enlarging participation in daily work; that those who live in such thwarting conditions and react to them over and over again must develop something analogous to a professional disposition. And a disposition so developed may be merely a grudge or any other psychic twist or deformity that impedes, rather than aids, normal social adjustment, if it does not positively facilitate maladjustment.

FUNCTION OF LEADERS

Obviously it is the proper function of leaders of society, not to attempt to find relief from maladjustments of whatever nature by forcing the illadjusted into ready-made modes, but to look upon the conditions in which we live—both material and spiritual—as so many stimuli or situations that induce the reactions or responses that are called "unrest" and "crime" and what-not; and secondly, in so far as possible, to alter those stimuli with a view to obtaining more favorable responses.

This may or may not lead to increasing wages and guaranteeing an income; to granting enlarged participation in the control of working conditions; to revolution of the educational system. But wheresoever it leads, to be successful it must create and maintain a sense of satisfaction from having relieved, and from continuous relief of the pressure of the sense of unfulfilled wishes. But this is not even an expression of a pious hope that by manipulation of the external conditions of life all such difficulties as we have had in mind may be made to disappear. The best that may be reasonably expected from such experiments in stimulation and response is an approximation to relief from crime and pathological unrest and the like.

The unstable character traits we have had under consideration are of great moment, not only in the relations we have described; they contribute not to a sense of unity throughout the group as a whole, but to one of insecurity and of division. If our neighbors are of unstable character we cannot have a prevision of their reactions in given situations as we do in our relations to our family. We say they are always doing the unexpected thing and that we cannot feel that we are on a footing of acquaintanceship with them. The result is a low morale, or, at best, a fickle public spirit.

RACIAL DIFFERENCES

Racial differences create a barrier to social unity. But just what fundamental and inescapable differences there are here is a question that must await the conclusion of investigations of great magnitude that have only just begun. So far as reliable studies have gone it appears safe to say that inter-racial obstacles are not of an intellectual nature—in any proper sense of the word. What radical differentia do exist *without doubt* are in respect

to physical appearance. In so far as these form an inescapable mark of identification, they are a constant reminder of race prejudices: prejudices that represent a defence reaction on our part toward a race that by crowding us may take our place in commerce, industry, agriculture, discovery or what-not and thus edge out of our hands, a bit at a time, our means of living. They are attitudes that are assumed toward the strong or those who, we fear, may prove to be strong. But if these physical characteristics are not permanent and certain marks of identification we neglect them. They are not constant reminders that keep prejudices alive and that maintain our reactions of defence. The way to amalgamation of races is open if differences in physical appearance are not striking. Witness the history of representatives of the Teutonic and Slavic and Mediterranean races in America.

But where indelible marks of racial identification do occur the situation is different. In this case it is less prejudice than revulsion, without deserving so strong a term. It is not directed necessarily against the strong who are able and aggressive enough to deprive us, nor against those whom we suspect of strength and aggressiveness. Whether we like to admit it or not it is often turned toward the weak. There is more or less of hesitation on our part in the matter of approaching those who are like us yet markedly different in human form, as dwarfs and others who are deformed by nature. It is possible, too, that those of us who bear unsightly scars are at better ease when we have hidden them from view, because we recognize the existence of such a motive in human kind. If there is any natural antipathy amongst races it is probably due to such causes as these.

Whether inter-racial barriers are due to different levels of intellectual capacity, to prejudice with its tap

root in fear or to a feeling akin to revulsion because of striking differences in appearance, there is but one way around them: a way that will be apparent to representatives of the races respectively only when they seek it thoughtfully: let each representative do carefully what lies nearest his hand in the place where he may be. Then as we observe one another at work there will gradually emerge a recognition of each one's capacities, adaptability and usefulness. Inevitably, then, as in all social relations, they will draw together in a matter-of-course relationship, and then the barriers will have vanished.

Under the influence of common environment, interest, language and religion these heterogeneous races may, by a process of fusion, become one homogeneous race.

Fusion between different peoples is the work of centuries. Having insufficient time at their disposal, the founders of various empires—Turkey, Russia and Austria, notably—have simply replaced it by force. Their work has always remained, for this reason, somewhat artificial, and the populations, however submissive in appearance, are not yet amalgamated.

PROGRESS

The second great problem that the student of psychology in its social relations has to deal with is that of progress, and this we have conceived as a process of developing a disposition in the members of a group that results in the emergence of social controls; in devising methods of more and more effective coöperation amongst individuals toward ends that are valued in common, and in using those methods once they are found. Of course the psychologic conditions that contribute to the growth of the alignment or sense of social unity we have been considering make at the same time for social progress.

As we have already said, there is an overlapping of what we have described as two problems.

The very hub of social progress is a growing psychic background of such a quality that the people who possess it are growing daily more and more capable of mutual understanding and coöperation, and more and more inclined thereto. Practically, we may be permitted to say that social progress is the increasing occurrence amongst the personnel of a community of sympathetic coöperation toward a common goal. This is equivalent to the statement that social progress is always a slow, gradual process. There are accelerations and retardations as in all processes of growth and decay, but these are never sensationally abrupt like a flash from the clear sky. The great political campaign, the stirring religious revival, the war craze sweeping the land, are not progress but ripples upon the surface of the great silent current of progress or reaction in every normal personality, occasioned by a leader's or agitator's interference with its accustomed course.

Failure to recognize these fundamental truths breaks many a reform movement which in more auspicious circumstances might have been the means, in the course of time, for developing new dispositions, expressed in enlarged outlook and sympathy amongst millions of people. Such failure it is that leads to social reaction and disaster.

Social progress cannot be forced from without. It must wait upon developments within. The liberal industrial or commercial organization establishes a welfare bureau which is interested in all that the name implies: recreation, health, education, home management, *etc.*, among the workers. But the employees, especially if they are native Americans or of British origin, resent what seems to them to be paternalistic and set their faces

toward forms of recreation, *etc.*, of their own devising. The promoters of the welfare enterprise are in danger of running counter to fundamental tendencies in human nature.

The like observation may be made properly of an industrial plant, the management of which institutes a profit-sharing plan, participation in which on the part of employees is conditioned upon their living in certain localities; in certain types of houses; in spending such a portion of their income for insurance, purchase of home, clothing and so on. As a general rule people are not made continuously happy thereby, because their personal initiative is sacrificed. Their sense of self-management is shocked; they are offended by paternalism.

There must be exceptions to these statements when one bears in mind large blocks of individuals who are near the edge of normality like the constitutional inferiors, whose philosophy is of the *laissez-faire* type, and of other large groups immigrated from paternalistic regions. Even as to the red-blooded ambitious element in the population, the paternalistic devices referred to above cannot be utterly condemned in the name of progress. Such devices may properly now and then be interpreted as stimuli adequate to call out desirable behavior such as ultimately will result in a complex of acquired dispositions favorable to good housing, to recreation, insurance, mutual understanding and coöperation, *etc.* The process of approximation toward such a result is progress. It is the part of unusual wisdom to discern how far paternalism may go without endangering the process.

LEADERS INITIATE PROGRESS

Obviously the removal or minimizing of the conditions we have already been describing will facilitate progress. But the initiation and direction of this progress

is, and always will be, in the hands of a few leaders. And leaders are, in general, of two types: executive and intellectual. It is of the utmost importance to discover the potential ones of either type at the earliest moment possible and to foster their development.

THE EXECUTIVE LEADER

The executive leader is illustrated in many military men and responsible heads of large commercial or industrial establishments. Such men have a capacity to grip the attention of their followers by a certain physical appearance of vitality, a vivid statement of purposes and means, and withal an inviting rather than an antagonistic personality. The entire make-up of such an individual is suggestive of strength. For that reason the native impulse of his followers is to go with him without questioning why. Aided by his vivid portrayal of ends and purposes and methods, each follower catches a vision, not only of what he himself is doing but of what is at the hand of every other in the group as well. Perhaps he catches a view of a thousand others who are doing almost precisely as he himself is. At any rate he sees, even though unclearly, how they all fit into a general scheme. Mutual understanding and sympathy arise in the group, and we have a degree of morale which may be so "high" that nothing can stand in the way of the expenditure of the last ounce of energy by each individual follower for the attainment of the common purpose. It is meant to be implied in the foregoing that the successful executive leader exercises a capacity for inciting enthusiasm in his followers. But this could not be accomplished were he not able also vividly to portray aims and ways and means.

Furthermore, such a leader as we have in mind skil-

fully estimates the morale of his followers and is able, therefore, to determine within reasonably accurate limits, how far he may expect them to go with him in a given enterprise. He is able, also, to seize upon the "psychological moment," as we say, for launching his program; in other words, he recognizes the times at which the psychic disposition of his followers will most favorably respond to active leadership. He thus takes a hand in fixing and developing those dispositions because he gives them an outlet and exercises them. But he is less actively engaged in creating these dispositions. He takes them as he finds them and uses them.

THE INTELLECTUAL LEADER

The intellectual leader points the way for his collaborator of the executive type. We do not mean to imply that the two are wholly distinct. He is more interested than the other in moulding human traits. He does not take things as he finds them. He moulds them to conform to an ideal. There is more or less overlapping of these types. The inventor of devices and of theories; the expounder of viewpoints; the investigator in science, history, art or what-not, is an intellectual leader and often, though not always, he is able to put his discoveries and theories to work. But whether so or not he is a leader by reason at least of the fact that all extension of knowledge ultimately reacts upon the ideals of an age. By the fact that he is pushing out the frontiers of knowledge and building an accumulation of data in his laboratory or library far from the limelight, though the people at large have the vaguest understanding of the data and only a cloudy grasp of the fact that the frontiers of knowledge are being disturbed in any manner, the spirit of the age is maintained in a plastic state; the

formation of unyielding conventional crusts is thwarted or delayed, and the people are therefore in an adaptable and sympathetic state of mind with respect to leaders of this sort. From the viewpoint of a psychological conception of social progress the development of the condition described above in itself represents a measure of social progress.

There are others who as intellectual leaders stand out from amongst the investigators behind the scenes. These are men and women with a capacity for a quick grasp and analysis of masses of details. They catch the meaning—or at least *a* meaning—of it all and have a certain facility for bringing it to public notice, and developing a consuming interest therein, in such a manner as to hasten the reshaping of customs, viewpoints and dispositions in consonance therewith. Or they give expression in music, in carving or upon canvas, to the inarticulate, half-conscious backgrounds of human nature. Forthwith they are recognized as leaders. Under their hand what was inarticulate becomes articulate on the tongues and in the behavior of thousands of people who thus are brought a pace nearer to a realization of a common interest and to a mutual understanding and spirit of coöperation.

DISCOVERY OF THE LEADER

Many attempts have been made at distinguishing leaders on the basis of observation of physical signs. One result has been the appearance of the "expert" characterologist who bases his judgment upon physical traits such as color of eyes and complexion, upon graphology, or upon voice, gesture, gait, *etc.* Phrenology was long since exploded. Research men have patiently attempted for years to find a correlation between character traits and biological marks, but without positive result.

Graphologists have asserted that they read character from handwriting by aid of the following signs:

Ambition—lines of writing slope upward.
Pride—lines of writing slope upward.
Bashfulness—writing is traced with fine lines.
Force—(a) heavy lines.
Force—(b) heavy bars on t's.
Perseverance—long bars on the t's.
Reserve—closed a's and o's.

Hall and Montgomery have made a detailed study of these alleged correlations with only negative results. Judgments based upon voice, gesture, gait, *etc.*, are in a very different category. The silent observation of an individual in action reveals much concerning his personality in respect to his skill and self-control. But no one has even been able to set down systematically the precise points upon which these judgments are based. Skill in these relations is attained only by dint of long periods of try, try again. There are indefinable signs in bodily carriage, vocal and facial expression, in the use of language and in bodily movement, no doubt, that somehow leave behind them the impression that one is face to face with a leader.

It is a fair hypothesis that in the long run the leader of the intellectual class is of greater significance in social life than the executive leader. If this is correct it follows that the attempts at identifying the members of this group and fostering their development should be of supreme interest.

Whence does this group arise? The statistical studies of American men of science by J. McKeen Cattell throw a flood of light upon the external conditions from which these leaders have arisen. They suggest the conclusion that if intellectual capacity were equal, stimulation would be the deciding factor. But of course a high level of

capacity there must be. And therefore the recent trend toward finding the children of our time who possess superior endowment is of surpassing importance. It is assumed that the unusually bright children of today will recruit the supply of intellectual leaders of tomorrow.

Support for this assumption is principally in the nature of impressions. There are many examples of intellectual leaders who, according to their biographers, were very precocious youths. John Stuart Mill, Thomas Macaulay and others are cases in point. In no instance has an attempt been made at a quantitative estimate of the intellectual level in youth of these leaders excepting in the case of Francis Galton. Terman has estimated his intelligence quotient at 200. The estimate is based upon the biographer's account of Galton's intellectual attainments at the chronological ages of 3 to 8 years and upon the known intelligence quotient of normal and precocious children of our own day whose chronological age and attainments are comparable to those of Sir Francis Galton at the time of which the biographer was writing. There are undoubtedly many who are properly classified as intellectual leaders who were not precocious children—perhaps it is more accurate to say that they were, at any rate, not recognized as precocious.

A fairly widespread popular belief that such children are mentally unstable and physically unfitted to endure the strains incident to preparation, and later for the responsibilities of leadership, is hardly borne out by the facts developed in recent studies in such classes. On the whole, children of superior intelligence in the public schools are of superior physical development, and there is no evidence of greater or of more frequent liability to failure of mental equilibrium in the group of exceptionally bright children than in an average group.

Professor Terman is authority for significant data

relating to fifty-nine superior school children, of whom eighteen were girls. Their average intelligence quotient was 149.7 and the median was 145. Reckoned on the basis of chronological age the average acceleration of this group was slightly more than two years.

Apropos of the popular suspicion that very bright children are afflicted with such instability of character traits as to interfere with their prospects for attaining leadership, the rating of Terman's group with reference to such traits as obedience, conscientiousness, dependability, unselfishness, evenness of temper and will power is in point. The ratings of teachers on these points were 1.51, 1.61, 1.56, 1.73, 1.90 and 1.50 respectively—compared with average children, and Terman interprets this as meaning that the group is as superior morally as intellectually.

As to their physical condition, Professor Terman found that only four were said to have defective vision, and only one defective hearing. Twenty-one had undergone operation for removal of adenoids, and two others were known to have more or less adenoid trouble. The record for tonsils was similar. The fact that approximately half of our superior children have had either adenoids or diseased tonsils suggests that these defects may not be as injurious to mental development as common opinion would have us believe.

One had chorea a few years before Terman's study, but had recovered. Two others had noticeable muscular twitchings. There were two stutterers in the group, both of whom at the time of the investigation were taking corrective lessons. There were no cases of abnormal fears. A part of the nervousness and restlessness occasionally mentioned was probably due to their not having enough school work to keep them busy. So much has been said about the nervous unbalance of precocious children that it

is surprising to find over two-thirds described as free from symptoms of this kind. The symptoms of most of the others indicated nothing serious. The proportion of stuttering and chorea was not far from that which is usually found for unselected children.

All but three of the children were said to sleep "perfectly." The average time of sleep for the children of each age was found to be slightly greater than the Terman and Hocking average for 2,692 unselected school children. There is no case of marked deficiency in ability to sleep.

Of the nine cases who were said to have occasional headaches, eight had them very seldom, not more than two or three times a year. One has long been subject to serious recurrent headaches.

Five were described as "not strong." One of these had always been sickly, and at the age of eight years had attended school only one year. In that year, however, he did the work of the first three grades. Another of these has also had insecure health from birth. He did not enter school until the age of fourteen. Between the ages of six and twelve he had only one hour per day of private instruction, and in that time completed the work of the first eight grades. The other three of the five were apparently just not strong enough to endure serious physical strain or excitement. Only three were seriously handicapped by ill health, a record which would probably not be excelled by an equal number of school children picked at random.

Tentatively the following conclusions emerge from studies concerning the nature of superior children:

1. That intellectually superior children are apparently not below the average in general health;

2. That in the vast majority of cases their ability is general rather than special or one-sided;

3. That the superiority is especially marked in moral and personal traits;

4. That "queerness," play deficiency, and marked lack of social adaptability are the exception rather than the rule;

5. That while superior children are likely to be accelerated on the basis of chronological age, they are usually two or three grades retarded on the basis of mental age;

6. That their school work is such as to warrant promotion in most cases to a grade closely corresponding to the mental age;

7. That the superiority tends to show early in life, is little influenced by formal instruction, and is permanent;

8. That superior children usually come from superior families.

As far, at any rate, as height and weight of normal and superior children are concerned, Baldwin and Stecher have confirmed the high correlation between superior physical development and mental normality and acceleration. Their report is based upon 143 studies of individuals who had been followed up from 1917 to 1921 by methods of such refinement that the commonest sources of error were no doubt eliminated.

Lacking more extensive evidence on either side of the question, it is a good hypothesis that our intellectual leaders arise from a group of exceptionally bright pupils, and that this group will continue to be the source of supply.

Evidently, to assure us of progress we must at the earliest possible moment find who amongst the young folk in any group are the most capable; and, having found them, we must do our utmost to surround them with such conditions as will help on their development. To discover them is the proper function of a personnel service in our educational institutions. But having found

them in high school or in college we believe it is a mistake forthwith to feed their interests in a particular occupation to the exclusion of other occupations or professions. To do so is to ossify them or to conventionalize them in a narrow sphere when they could be cultivating the broadest possible range of interests. This view, we believe, is justified by considerations of utility even, if by no other. The best satisfied and the most efficient workman in any sphere is one who has the habit of observing broad relationships among even widely separated areas of human interests, and the leader *must always* keep them in view. He dare not be over-specialized.

BIBLIOGRAPHY

Allport: *Social Psychology,* New York, 1924.
Boas: "Human Faculty as Determined by Race," *Proceedings of the American Association for the Advancement of Science,* 1894, vol. xliii, pp. 301–327.
Boas: *The Mind of Primitive Man,* New York, 1911.
Cattell: "A Statistical Study of American Men of Science," vol. iii, *Science,* vol. xxiv. Also, 1906 and 1910, vol. xxxii, pp. 623, 633, 672.
Dunlap: "Are There Any Instincts?" *Jour. of Abnor. Psych.,* 1919, vol. xiv, pp. 307–311.
Gault: *Social Psychology,* New York, 1923.
Goddard: *The Kallikak Family,* New York, 1912.
McDougall: *Introduction to Social Psychology,* Boston, 1918.
Memoirs of the National Academy of Science, 1921, vol. xv, Part III, Chaps. VIII, XI, XIII.
Stoddard: *The New World of Islam,* New York, 1921.
Terman: "The Intelligence Quotient of Sir Francis Galton," *Amer. Jour. Psych.,* 1917, vol. xxviii, pp. 209–215.
Whipple: "The Supernormal Child," *Jour. Educ. Psych.,* 1911, vol. ii, pp. 164 and 287.
Whipple: "Supernormal Children," *Cyclop. of Educ.,* 1913.

CHAPTER IV

RECENT DEVELOPMENTS IN CULTURAL GEOGRAPHY

BY CARL O. SAUER, PH.D.

Professor of Geography, University of California

ITS ACADEMIC STATUS ABROAD AND AT HOME

GEOGRAPHY has never been confined to the activities of its academic representatives. In England, for instance, the major contributions have come from colonial officials and from a class of leisurely amateurs. A brief review of academic and non-academic geography may serve to show the distribution of interest and personnel as conditioning geographic studies.

As a university subject, geography first received recognition a century ago, in the appointment of Carl Ritter at the University of Berlin. The genius of his lectures and writings, supported by the brilliant investigations and personality of Alexander v. Humboldt, made a very great impression on his time. These two are to be considered in the main as the initiators of modern geography.[1] That this development should have taken place on German soil appears to be connected with an historically superior position of geography in German thought, expressed, for instance, in the eighteenth century by Kant's physical geography, in the seventeenth, by the revolutionary Geographia Generalis of Varenius which Humboldt resurrected, and during the Renaissance by a notable group of scholars.[2] It was not until the decade

[1] Wisotzki, *Zeitströmungen in der Geographie*, 1897, is the best appreciation of the developments of this period.

[2] Gallois, L., *Les géographes allemands de la Renaissance*, 1890.

1870–1880, however, that chairs of geography were established in number. At that time the fields of study outlined by Peschel at Leipzig in his *Neue Probleme der vergleichenden Erdkunde* served as a particularly effective stimulus to geographic interest. This was the generation of great academic pioneers, of whom Hermann Wagner of Göttingen alone remains living.[3] Of necessity these men entered geography from other fields of preparation. The accommodation of their views to a common purpose, their vigorous activity in research and teaching, and their high ability resulted after an astonishingly short time in the existence of a full fledged university field for geography. Of this generation, Baron F. von Richthofen and F. Ratzel in particular headed schools to which we shall refer later.

For more than a generation all Germanic universities have had their departments of geography, in numerous cases developed as geographic institutes, possessing resources for field work and their own publications. Geographic chairs have also been established at the technical high schools and the high schools of commerce, all of which have university standing.[4]

The list of professional workers in the German field should include many teachers in gymnasia and other secondary schools. Geography is required throughout the secondary field, with the result that the great majority

[3] Not the least of his contributions is his long editorship of the critical annual bibliography *Geographische Jahrbücher* and the series of articles on the methods and objectives of the science which he contributed to it from 1874 on. These are based on an exhaustive analysis of the methodologic literature of that period and constitute as it were a history of geographic thought for virtually the whole of the nineteenth century.

[4] Both Petermann's *Mitteilungen* and the *Geographische Zeitschrift*, publish semi-annual lists of all geographic courses offered at the universities and similar schools that employ the German language. The number of instructors, all specialists in geography, now (1926) is ninety!

of those who complete their doctorate in this subject become *Oberlehrer,* many of them continuing to be active as scholars and to contribute to geographic journals. This great body of competent geographers, distributed throughout the country, at the same time preserves the university geographers from the exhausting labors of elementary instruction and contributes constantly to geographic research.[5]

The developments in France parallel those of Germany closely, were strongly influenced by the neighboring country, and follow at somewhat later dates. The indefatigable activities of Vivien de St. Martin, of the Société de Géographie, himself an important contributor to the history of Geography,[6] and the brilliant writings of Elisée Reclus, excluded from an academic career because of political non-conformity, were of sensible importance. It was in particular, however, the leadership of Vidal de la Blache, deceased in 1918, that secured general recognition for geography in his country. His stimulation of scholarly work was such that he is said, as sub-director of the École Normale Supérieure, to have trained "all the professors of geography who have since taught at French universities."[7] His final position at the Sorbonne rounded out a long lifetime, which in its influence on the development of the geographic field can be compared only to that of Ritter. French geography is unfolding strongly at the present moment. The various faculties at Paris contain at present probably the most

[5] *The Geographischer Anzeiger,* which is the official journal of the geographers in the secondary schools, bears witness to the extraordinary status of the subject in the quality of its articles, many of which are scientific contributions.

[6] *Histoire de la géographie et des découvertes géographiques depuis les temps les plus reclus jusqu'à nos jours,* 1873.

[7] Martonne, E. de, "Geography in France," p. 20, *American Geographical Society Research,* Ser. 4a. An excellent, objective summary of geography in France, with special reference to its curricular position.

active and significant group of geographers to be found in any one centre. All the provincial universities are manned, especially in the south, by a notable group of geographers. In general academic standing French geography can fully claim equality in leadership with German.

In Great Britain the powerful influence of the Royal Geographical Society was long directed against the conservative university tradition before an opening was made for geography. In 1887 a Readership was established at Oxford. The position was held by Mackinder until he became director of the London School of Economics, having previously secured a university school of geography at Oxford. Cambridge introduced the subject in 1888, and one by one other universities followed suit, until the list at present is nearly complete.[8]

For Europe in general it may be said that geography has been recognized in full in the universities as an independent field of instruction and research. There are on the entire continent only a handful of higher institutions at which geography is not thus represented.[9] Indeed Latvia appears to be the only country in Europe having a superior school which has not provided a professional geographer. Whereas in most of these countries German or French training is prevalent, Italy has its own school of geographers, derived primarily from Dalla Vedova,[10] and Sweden is becoming autonomous in its geographic culture.

In contrast to the European situation academic geography in America has been late and slow in becoming established. In fact there exists in this regard so great

[8] Keltie, J. S., "Position of Geography in British Universities," *Am. Geog. Soc. Res.*, Ser. No. 4.

[9] Joerg, W. L. G., "Recent Geographical Work in Europe," in *Geog. Rev.*, 1922, pp. 431–482, presents at first hand a study of conditions in European geography.

[10] Amalgia, R., gives an excellent summary of Italian geography in a brochure entitled *La Geografia*, 1922. A lengthy bibliography of Italian geographers is appended.

an hiatus between the two parts of the world that it is difficult to understand the condition of one in the other. On the one hand there is assured independence and parity, on the other there is still prevalent neglect or limited tolerance of the subject. A sporadic early appearance of geography in the university was at Princeton where Guyot taught. In the eighties, physical geography experienced a considerable growth, represented most particularly by W. M. Davis, of Harvard.[11] Profound as has been his influence on physiography, the benefits in the end have accrued to geology more largely than to geography. His disciples are to be found today for the most part among the geologists. By its exclusive preoccupation with physical processes this school, dominant for many years, in fact tended to supplant geography, as it is generally understood, by physiography.

To Miss Ellen Semple belongs the credit of having been the pioneer in human geography in this country. After studying with Ratzel in the early nineties she returned to America an ardent and engaging protagonist of his views, in particular as to geographic interpretations of history. By writing and lecturing she steadfastly advanced this position. In 1903 the University of Chicago established the first regular geographic chair. Though Miss Semple never was regularly connected with the university, her influence, joined to the support of the physiographer Salisbury, guided the early growth of the teaching of geography at that institution. Chicago, with a present staff of four professors and four assistant professors in geography, is the largest geographic centre in the country. In 1921 President Atwood undertook the formation of a School of Geography at Clark University,

[11] "History of American Geography. The Progress of Geography in the United States," in *Ann. Ass. Am. Geog.*, 1924, vol. xiv, pp. 159–215, is a brief summary of the entire field, academic and non-academic.

and here again the support of Miss Semple has been freely given. Independent departments of geography exist further at California, Michigan, Minnesota, and Pennsylvania. At Columbia and Wisconsin adequate geographic staffs work in essential independence, though nominally integrated into other departments.[12] Elsewhere geography is represented by individual workers classed into other departments, or is taught as a service subject, if taught at all, for ends other than its own. For utilitarian ends our higher institutions have absorbed promptly the available geographers year after year. There lies in this fact, however, a distinct handicap.

In geography we are still far from being able to claim for our universities a state of equality with those of Europe. The number of professors of geography is very small, and they are unevenly distributed. Geography, in particular on the "human" side, has been if anything too popular in the curriculum. There have been compiled from time to time in the *Journal of Geography* lists indicating the number of geography courses taught at various institutions and their enrolment. These lists indicate in general a large increase in "students of geography," which appears as a matter of considerable satisfaction. Actually the increase is mostly in elementary courses and is of little significance to serious work except that it tends to swamp the teachers, so that they have little opportunity to develop as scholars or to subject their own objectives to critical examination. This condition of course has its parallel in the other social subjects, which have enjoyed in some cases an even greater popular vogue. There is then danger of a success not based on scholarship, of the early crystallization of the instructor as a writer of ele-

[12] Mention should be made of the Teachers College at Ypsilanti, Mich., as a nursery of geography, especially through the influence of Mark Jefferson.

mentary texts, to which he contributes really only agreeable methods of presentation. It may appear odious to dwell upon this point, but the fact is hardly to be disputed that we are schoolmasters rather than scholars.

Furthermore there is a tendency for men to become economic geographers before they are geographers, with the resulting risk of prematurely arrested development. There is a tendency to regard geography as a service subject, existing as a prop to economics or business studies. In some cases, on this account, promising geographers are absorbed in the drilling of drafted students. In many more cases economic geography is entrusted to economists who are not interested in geographic objectives. Without discounting in any way the need of abundant coöperation between the several studies of social forms, this service demand in its usual form may be characterized as at best offering an academic opening to a geographer, and at worst as resulting in a complaisant solution of a purely curricular problem.

THE GEOGRAPHIC SOCIETIES AND BUREAUS

To a degree rarely equalled in other fields geography has been supported by societies of non-academic character. Commonly established under royal or patrician patronage, the geographic societies began as explorers' clubs. To them were given the first accounts of new discoveries in far parts of the earth. They organized or aided exploring parties, especially in Africa, inner Asia, and the polar regions. They developed valuable libraries and fostered studies in the history of exploration and of geography in general. Journals and monographs were issued by them in rapidly increasing number. Medals and prizes were granted for the solution of geographic problems. Instruction was fostered, especially in the higher schools. Based on popular appeal, supported by pride of state and spon-

sored by its leading members, these societies have aided the development of geographic science in very large measure in almost every civilized country.

The eldest of these societies is the *Société de Géographie,* founded in Paris in 1821. It was followed by the *Gesellschaft für Erdkunde zu Berlin* in 1828, and the *Royal Geographical Society* of London in 1830. Of these the last has been greatest in wealth and influence. The labors of Clements Markham and Scott Keltie are being worthily carried on under the present direction of Hinks. The voluminous publications of the three societies form in their original articles and reviews an imposing record of the geographic progress of a century. The following geographic societies have been in existence for fifty years or longer, all of them still issuing publications, usually journals, of more or less note:

Paris: *Société de Géographie,* 1821.
Berlin: *Gesellschaft für Erdkunde,* 1828.
London: *Royal Geographical Society,* 1830.
Frankfurt: *Verein für Geographie und Statistik,* 1836.
Rio de Janeiro: *Instituto historico e geographico do Brazil,* 1838
Mexico: *Sociedad mexicana de geografia,* 1839.
St. Petersburg: (Imperial) *Russian Geographical Society,* 1845.
Darmstadt: *Verein für Erdkunde,* 1845.
The Hague: *Koninklijk Institut voor de Taal-Land-n Volkenkund van Nederlandsch Indie,* 1851.
New York: *American Geographical Society,* 1852.
Vienna: (k. k.) *Geographische Gesellschaft,* 1856.
Geneva: *Société de Géographie,* 1858.
Leipzig: *Gesellschaft für Erdkunde,* 1863.
Dresden: *Verein für Erdkunde,* 1863.
Rome: *Reale Società Geographica Italiana,* 1867.
Munich: *Geographische Gesellschaft,* 1869.
Bremen: *Geographische Gesellschaft,* 1870
Budapest: *Magyar Földrajzi Társság,* 1872.
Halle: *Verein für Erdkunde,* 1873.
Hamburg: *Geographische Gesellschaft,* 1873.
Berne: *Geographische Gesellschaft,* 1873.
Amsterdam: *Koninklijk Nederlandsch Aardrijkskundig Genootschap,* 1873.
Lyon: *Société de Géographie,* 1873.
Paris: *Société de Géographie commerciale,* 1873.
Bordeaux: *Société de Géographie,* 1874.

Cairo: *Société (khédiviale) de la géographie,* 1875.
Lisbon: *Sociedade de Geographia,* 1875.
Antwerp: *Société Royale de Géographie,* 1876.
Brussels: *Société Royale Belge de Géographie,* 1876.
Madrid: *Real Sociedad Geografica,* 1876.
Copenhagen: *Kongelige Danske Geografiske Selskab,* 1876.
Marseilles: *Société de Géographie,* 1876.

There is no need for apology in presenting this long list. It is a veritable document of the spread of geographic interest and a scroll of its achievements. It is notable that the early seventies, which was the period of greatest inflorescence in the academic field, also saw the founding of half the societies of this first group. There were, however, great societies of later birth, especially at Stockholm the *Svenska Sällskapet för Antropologi och Geografi,* at Edinburgh the *Royal Scottish Geographical Society,* and the Tokyo *Geographical Society.*[18]

The American Geographical Society has provided the principal organ of publication in this country, first as the *Bulletin,* since 1916 with the accession of Bowman to the directorship, as the *Geographical Review.* The latter has become an international organ, to which geographers from all over the world contribute in larger measure than to any other publication. The society is further concentrating on Hispanic America with a special series of maps and studies, is issuing a valuable Research Series in which historical geography is not neglected, and has still other publications. It has reflected in its most varied activities in the past ten years and in its vigorous opinions the masterful energy of its director, Isaiah Bowman, who has made this institution a most distinct geographic centre.

For a summary of geographic activities of governmental bureaus the best source is the annual *Bibliographie géographique.* To cite only a single instance we may note

[18] A useful finding list for geographical journals has been prepared by Wright, J. K., "Aids to Geographical Research," *Am. Geog. Soc.,* Research Ser. No. 10.

the present activities of our own government as to studies in human geography. In the first place, the topographic branch of the United States Geological Survey, under the direction of C. H. Birdseye, is issuing a series of maps of fundamental cultural significance. Not only are the topographic maps, properly so-called, necessary physical bases of the study of human utilization of areas, but increasingly they contain cultural generalizations. In the economic field this bureau is further issuing special maps, as the map on irrigation in California which was executed in its office, maps of water-power development and power in general, of oil and gas fields and their pipe lines, and so on. The topographic office for years, through its superior officials, has kept in close and cordial touch with the academic geographers of the country. The Water-supply and Irrigation Division of the United States Geological Survey is carrying on much definitely geographic work. Such bulletins as those on the desert watering places and the regional bulletins of Kirk Bryan are among the most valuable current contributions on regional geography, with full evaluation of the human element. The chief of this division, O. E. Meinzer, again shows in the plan of the work and his own studies, the close touch that he maintains with geographic thought. In the Bureau of Soils the field studies are under the direction of C. F. Marbut, a past president of the Association of American Geographers. This survey is producing increasingly valuable studies in the agricultural utilization of areas. In the Bureau of Agricultural Economics the work of O. E. Baker and associates, in the monumental *Atlas of American Agriculture* and in many papers on land utilization, has become exemplary.

The influence of Salisbury launched the Illinois Geological Survey in a series of geographic bulletins, later to be paralleled and improved by regional bulletins of the

Wisconsin and Kentucky surveys, all of them with strong emphasis on the human element.[14] The most elaborate official survey on a geographic model is that now being conducted by the Department of Conservation of Michigan as the Economic Land Survey, in which a permanent corps of workers is engaged in the detailed inventory of land resources as to their exploitation and long-run possibilities.[15]

Passing over further the international geographic congresses, of which eleven have been held, and the national conferences of geographers which take place annually in the principal countries, mention should finally be made of the great geographic institutes on a commercial basis, with which professional geographers are associated. The first of these is that of Justus Perthes, in Gotha, now claiming the services of geographic specialists such as Haack and Langhans, and for a century the home of a group of distinguished geographers. In such publications as *Petermann's Mitteilungen,* the *Geographische Jahrbücher,* the *Geographischer Anzeiger* and the *Geographenkalender* it has served the geographic interests of the world.

It is necessary to know on how far-flung a front geographers are represented, in order to appreciate the common bonds which hold them and the dual possibilities of research, within the usual academic setting and through private and public institutions that have no association with instruction. The many kinds of geographic bodies have given us a personnel, varied in character, widely distributed as to locality, and distinguished as to

[14] The State of Kentucky, under the initiative of W. R. Jillson, has completed a series of six regional geographies covering the entire state and has now begun its first urban geographic study.

[15] Lovejoy, P. S., "Theory and Practice in Land Classification," *Jour. Land and Pub. Util. Econ.,* vol. i, pp. 160–175.

services, by means of which the content of the field is being continually enriched.

ENVIRONMENTALISM AND ANTHROPOGEOGRAPHY

In America geographers are rather generally considered by outsiders as students of the natural environment of man, and many geographers thus declare themselves. There is a curious tendency in this country to name the investigation of the environment as affecting man as the distinguishing mark of modern scientific geography. It is nothing of the sort. Such environmentalism has never dominated geographic thought at any period, and environmental theses are as old as the subject itself.

There exists a mountainous mass of material in literature on environmental influence or significance. Such notations are sprinkled abundantly through Greek writings, probably most notably in Aristotle, where indeed environmental determinism is pretty clearly postulated. The rationalistic eighteenth century advanced most freely the idea that societies were determined by the good or bad fortune of their physical surroundings. The classical illustration is Montesquieu's *Spirit of Laws* with its thesis of climate and soil as determining government. Herder's philosophy was also most strongly colored by environmental determinism and Buckle's *History of Civilization* elaborated the same thesis before a large audience.

Carl Ritter contributed most largely to introducing the thesis of environmental influences into history and geography.

"He distinguishes sharply the accidental geographic admixture in history from the necessary historical element of geographical science, which does not appear idly but formative, everywhere as the conditioning basis of events. An important part of geographic science lies in the recognition of the expressions of area on the intellectually ascending development and unfolding of individuals and people, even of the whole human race. The home of man does not remain unchanged,

however, especially because he puts himself into new relations to it. Man grows by the more harmonious relation to the earth, by more intimate contact with it and wiser use of its conditions." [16]

Aside from his teleologic view that the earth was designed as a training ground by divine purposes for the human race, Ritter represented a pretty moderate view of the reciprocal and evolutionary relation of environment and society.

Ratzel finally set up the new discipline of anthropogeography as a study of the effects of nature on man, with the following classification of anthropogeographic facts:

A. Effects on man, independent of his will.
  a. On the body (physiologic), as, enervating influence of tropics.
  b. On the mind (physiologic), as, effect of terrifying phenomena on superstitiousness.
B. Effects on the willed activity of man.
  a. Effects that result in happenings.
    1. Causing action, as, the longing for the south by northern peoples.
    2. Conditioning action, as, the use of valleys in migration to the sea.
  b. Effects that result in condition.
    1. Ethnographic, as, the fur clothes of the Eskimo.
    2. Social and political, as, splitting up of desert peoples into small units.[17]

This, it should be added, is the baldest statement of Ratzel's position, to which he did not adhere closely.[18] His highly imaginative mind found no dearth of observational items to be joined into colorful, speculative schemes. Ratzel was a most active feuilletonist and got into geography through newspaper work. This quality adhered to him: Bold lines and big sketches were his métier; he stimulated rather than made fundamental studies. Important as was his influence, he never had such influence at home as he appears to have exerted

[16] Ratzel's summary in *Anthropogeographie*, vol. i, pp. 45–46.
[17] *Anthropogeographie*, 1882, vol. i, p. 61.
[18] See his introductory chapters to Helmolt's *History of the World*.

abroad, and his influence on geography was perhaps not so great as is supposed by the students of society.[19]

It was in English-speaking lands that the inquiry into environmental influences made its greatest appeal. It well-nigh swept the academic field, but has made little impression on the non-academic circles of these countries. Even in far Australia Griffith Taylor has lately been solving the migrations of man and projecting his future distribution on the basis of hypothetical climatic changes and effects in a manner which Ratzel in his most exuberantly speculative moments could scarcely have attained.[20]

In this country Miss Semple has made a careful appraisal of geographic influences in American history, which is the most significant exposition of that theme in our literature. It was an epoch-making study that made important corrections to current historical views.[21] She undertook a translation of Ratzel's anthropogeography, but produced finally an original contribution to general human geography.[22] The geographic scene was brought to the attention of the American public in another manner by Ellsworth Huntington. He became impressed with the possible connection between a supposed desiccation of inner Asia and migrations,[23] modified this thesis increasingly so as to place more stress on secular variations of climate, however without abandoning climate as a key to civilization.[24] Most lately he has consolidated this

[19] J. G. Kohl, *Verkehr u. die Ansidlungen der Menschen in ihrer Abhängigkeit von der Erdoberfläche,* 1841, and Léon Metchnikoff, *La Civilisation et les Grands Fleuves,* 1889, are two highly speculative theses of social progress that originated in geography and exerted a considerable influence at the time.

[20] "Climatic Cycles and Evolution," *Geog. Rev.,* 1919, pp. 289 ff.; "Evolution and Distribution of Race, Culture, and Language," *Ibid.,* 1921, pp. 54 ff.; "Future White Settlement," *Ibid.,* 1922, pp. 375 ff.

[21] *American History and Its Geographic Conditions,* 1903.

[22] *Influences of Geographic Environment,* 1911.

[23] *Pulse of Asia,* 1907.

[24] *Civilization and Climate,* 1915; *Climatic Changes,* 1922; *Earth and Sun,* 1923.

position with that of natural selection and has worked out an environmentalist-racialist thesis of the inequality of man.[25]

The first president of the Association of American Geographers twenty years ago made the following statement:

"Neither the inorganic nor the organic elements which enter into geographical relations are by themselves of a completely geographic quality: they gain that quality only when two or more of them are coupled in a relation of cause and effect, at least one element in the chain of causation being organic and one inorganic. Any statement is of geographical quality if it contains a reasonable relation between some inorganic element of the earth, acting as a control, and some element of organic existence serving as a response." Indeed in this causal relation lay, he said "the most definite, if not the only unifying principle that I can find in geography."

The latest president of the same body, in 1925, said:

"So much of the physical geography as is immediately needed for the appreciation of human adjustments is an essential part of geography. More than this is not geography. In the last analysis it is probable that certain regions and peoples are advanced mainly because of the highly favorable environments in which the race has evolved: that their initiative, energy, and intelligence are products of underlying environmental factors operating upon these peoples for long ages. It is the old question of race versus place; and the geographer will hold that the *masterful race is the product of the place that nourished it.*"[26]

The presidential addresses that lie in between, with one notable exception, in so far as they relate to general objective, are much in the same tenor. Barrows, for instance, proposed a drastic limitation of the field in his "Geography as Human Ecology," making it simply the study of man in relation to his natural environment.[27]

The British professors of geography have in general the same orientation. In particular Mackinder,[28] Herbertson and Lyde[29] have sounded their environ-

[25] *Ann. Ass. Am. Geog.*, 1924, vol. xiv, pp. 1–16; *The Character of Races*, 1924.

[26] Whitbeck, R. H., "Adjustments of Environment in South America," *Ann. Ass. Am. Geog.*, 1926, pp. 1–11.

[27] *Ibid.*, 1923, p. 1 ff.

[28] "Geographical Pivot in History," *Geog. Jour.*, April, 1904.

[29] *Continent of Europe, Man and His Markets.*

mentalist convictions in no uncertain terms. A very temperate and critical position, however, is held by J. H. Fleure as shown by his journal (1921) *The Geographical Teacher* and in his writings in general, such as *The Geographical Factors.* Professor L. R. Brown, at his recent appointment to the University of London, stated:

"A number of remarkable teachers have introduced what is virtually a new subject. Just one or two men, such as Ratzel, Mackinder, and de la Blache (sic), each in his own country, were at first responsible. They initiated a subject which has come to have today much the same content and outlook in all countries, a study of the interrelationship of man and his physical environment. It involves, then, a selection of historical and physical facts and the examination of the relation between the two sets of facts."[80]

Brown's position is in extreme contrast to another habilitation address, made by Schlüter at Berlin in 1906, to which reference is made later. I know of no better way to set forth the divergence in objective among geographers than by these two addresses, each delivered by a professor-elect before his fellow university members.

There has been a distinct tendency to soften the term that expresses the environmental relation. Control, influence, connection, bearing, relation are such a series of less and less confident names. We may identify the hypothesis as existing in three stages: (1) A determinism of society by external nature so as to find man the product of the earth in a very simple and direct way. Kirchoff's *Man and Earth* and Herbertson's *Man and His Work* (1899) are confident of the dependence of man in a manner that probably appears outworn to most geographers at present. We have been excessively advertised in

[80] "Geography and the University," *Scot. Geog. Mag.*, 1926, pp. 65–78. His reference to California climate as one of six corresponding climates in all of which "are being worked out similar human adjustments" and his elaborate illustration of the environmental factors expressed in the growth of St. Louis were of particular interest to the writer, as a resident of the one area and a native of the other. In each case an oblique light is thrown upon the area, which conceals perhaps as much as it reveals.

popular articles and elementary lectures by a very small number of ardent pleaders. (2) A reduction of the environment to one of the conditioning factors in social process, in which condition, however, is still to be sought the meaning of geography. This position of reasonable restraint, without shifting the objective of geography away from the environmental relation, is especially characteristic of the newer school of human geographers. (3) The environment is viewed as in reciprocal relation to man, affecting his condition and being modified by him in turn. This thesis has appeared in varying form from Ritter to Brunhes. It is often professed, a mere gesture, by those who work nevertheless exclusively on the environmental conditioning of society. It is obvious that this so-called reciprocal relation encloses two quite different concepts, the one of multiform conditioning of human acts by external nature, the other of the effects of human acts on the surface of the earth. The two concepts may not determine each other and the statement is then a convenient phrase rather than a logical relation. The phrase is significant only if the acts are identical in each part of the relation. The critical part of definition is therefore not that of the environment, but of the act or condition. The general concept becomes then essentially the same thing as the idea of area, to be developed later.

The critique of the environmentalist position has been done often and effectively. Franklin Thomas' *The Environmental Basis of Society* (1925) is the most recent contribution to the subject, exhaustively documented, ably done, and so temperate that it may serve in the main as the last word on a subject that is becoming a trifle wearisome.[31] Another slashing attack is by L. Febvre,

[31] Overestimates the importance of Ratzel, does not know Febvre, and disregards in the main the criticisms that have originated within geography.

La terre et l'évolution humaine (1922), now available also in English translation.[32] Among geographers, Vidal and Brunhes in particular have disposed of the strict, or naïve anthropogeography.[33] Gerland long ago saw that "the effects of terrestrial forces are not absolute and certain in the case of man as they are in the organic world and in that of plants and animals, since the will of man interposes itself as an unknown quantity, X, between natural conditions and effects."

Michotte, geographer at Louvain, has expressed the objections to defining geography as the study of environment as follows:

"Any fact would be geographic if it is bound to the milieu in which it is found, if it undergoes influence therefrom, if it is, in other terms 'in connection' with other facts of the surface. (Brunhes is then cited at some length as presenting this position.) If this is the purpose of geography, is it actually a distinct science? We do not think so, for:

"1. The principle of 'connection' is not as geographers pretend specifically geographic.' It is not true that other sciences do not consider such facts except as things apart from their environmental connection; the study of the relations existing between the facts and the milieu in which they are produced, is an integral part of the sciences of observation. To maintain the contrary is nonsense. What else is this than the new science which is called 'ecology,' which is precisely the study of the adaptation of living beings to their milieu? In consequence we do not see how in applying the principle of connection, geography would distinguish itself from neighboring sciences.

"2. It is impossible by the principle of connection alone to define precisely the domain of geography.

"a. Among the facts of surface there are some which do not come under the rigid determinism which the principle of connection presupposes. This case occurs especially in human geography. The geographer can then take one of three positions: 1. deny the 'geographical' character of the facts by declaring that he is not concerned with them; or 2. force the natural laws, forge relations that do not exist, conclude from possible influences that there are real influences. This is not an imaginative supposition. Sophisms of this sort are not rare even with geographers of the highest order. It is very easy, when the processes of thought are not controlled by the rules of an inflexible logic to pass beyond conclusions that are authorized by the facts.

[32] In Knopf's edition of the *History of Civilization*.

[33] Vidal de la Blache, *Principes de géographie humaine*, 1922; Brunhes, J., *Géographie humaine*, 1910–1925, in English, *Human Geography*, 1920.

3. The geographer, under the hypothesis that is before us, abandons the principle of connection and invokes some other criterion. I remember having heard one of the most eminent contemporary geographers, in a course on the geography of human habitation, pronounce this phrase which I noted literally: 'If this sort of habitation is not at all *geographic* because it has no connection with the milieu, still the geographer would need to study it as a *fact of surface.*' One might conclude that one studies non-geographic facts in geography. This was an explicit avowal of the insufficiency of the principle of connection.

"b. The application of the same principle can extend to infinity the field of geographic studies. We declare, therefore, that the study of these influences is not the monopoly of geographic science, that a fact is not 'geographic' because it is bound to the milieu in which it develops."[84]

There is, of course, no intention to belittle environmental influences. There are obviously parts of the earth where man has fared badly and others where his living has been facilitated by natural conditions. Though a knowledge of the environment is fundamental to an understanding of human affairs, this knowledge in itself does not supply ordinarily the explanation of man's status in a given area. The notion of environmental significance is really a commonplace to which every one subscribes. Those who deny it are as readily refuted as those who exaggerate it. The geographer will continue to be interested in this question as much as any other group, but his interest is concerned properly only with the *mise en valeur* of the environment as expressed in the cultural utilization of natural areas. We object to the assumption that geography is commissioned to general environmental studies alone. Those of us who decline to work on this basis would be ruled out under such a view because we think it a single theme rather than our whole field of work.

The objections to this definition of the object of geography apart from the fact of its utter neglect of the major tradition of the subject, may be summarized thus:

[84] "L'Orientation nouvelle en géographie," *Bull. Soc. R. Belge de Géog.*, 1921, pp. 11–17.

In its extreme form this view is based on a belief that a single natural law can explain the social order. It is an early flower on the tree of social scientific monism. There have come later fashions, genetics with eugenics, certain phases of psychology, and biochemistry with its endocrine glands, that are more in favor today. More notorious, because less scientific, are the great-man-in-history idea, and the notion of racial superiority. It is doubtful whether any or all of these will supply a codex of society. The question at least is still open. Can a field of inquiry surrender its fate to a *Weltanschauung?* Certainly under this view there could not be a place for a Henry Adams in such study, simply because he was lacking in faith.

A particular causal relation is not definition of a field of science. A science of observation deals with a great category of generally recognized facts, a "naïve section of reality," not with a particular causal connection. Evolution is a great directing hypothesis within biology but it is not biology, nor is it even a causal term, but rather a description of a sequential arrangement. I know of no science that is definable in terms of an hypothesis of causal connection instead of in terms of material.

The thesis of environment has not supplied geography with sufficient tangible objectives, that is with things to be studied. In content anything about man that is environmentally conditioned is included and whatever is not is excluded. We have disquisitions in our literature on the environmental basis of religions, of governments, of military organizations, of agricultural practices, of industrial efficiency, of bodily energy, of stature and complexion, of literary and musical talent, one might say "of shoes and ships and sealing-wax." No wonder that such studies are likely to be little more than homilies, prodded by a moving faith, as in frontier ordinations to the min-

istry where the candidates were instructed never to mind the text, but always to expound salvation.

Nor is there discernible a distinctive and sufficient method or discipline. There has been scarcely any other method suggested than that of statistical correlation, with which Huntington has been experimenting on energy, industrial efficiency, and climate. This is of course a general method. It does not appear on the face of the situation that such studies cannot be carried out better by a student of the particular material, who controls materials and methods of inquiry, rather than by a geographer who brings little more than his faith. In the case of Huntington a knowledge of climate is added, though his interest in climate appears to rest on his belief in it as a factor in society rather than on an earlier concern with climatology. Just how the environmental relation to human conditions is to be determined, even what is meant by this relation, is still in large part undefined. An effective way of measuring the force concerned is lacking in the main.

It is difficult, without the check of experimentation, to work impartially on a controversial question. Few appear able to do it. The situation is comparable to much that is encountered in the fields of economics, politics, and sociology, where creeds also appear to bulk large. In all of these we are likely to find predetermined theories of value with which the student begins and which thereby forecast his conclusions. Environmentalism is in a sense a theory of value, a form of predestinarianism. It is not likely to be made the subject of a lifetime inquiry unless one has definite predilections. Ideally such a situation is not necessary; actually, however, interest in the subject is likely to be sustained only by a belief in it that results in strong partisanship.

Those geographers who do not have their emotions enlisted are likely to be engaged in studies far removed from the controversial definition. The debates that go on between the environmental geographers on the one hand and the sociologists and anthropologists for the occasion joined into an opposition bloc, may have advanced the cause of truth. At any rate they have drawn attention to another form of the dialectic research that seems peculiarly dear to the heart of the student of man. Perhaps we shall need to wait until argumentation subsides somewhat before the social sciences fully take account of scientific methods. They will do that when they distinguish sufficiently between social science, social theory, and social service; when that time comes we shall probably no longer hear of the environmental basis of society as the sole objective of geographic research.

TRADITIONAL POSITIONS AND THEIR CURRENT EXPRESSIONS

A persistent dualism characterizes the history of geography. On the one hand it appears as general earth science, which can be traced back as far as the cosmologic school of Greek philosophy. We may call this the cosmologic view, the integration of all the phenomena localized on the earth into general natural law. On the other hand, geography sees in the differentiation of the earth's surface its direct and peculiar field, which may be called chorology, literally the science of regions. The latter view was developed by Strabo. Himself a Stoic philosopher, he set up a philosophy of geography of realistic character, based on direct observation, anthropocentric, and culminating in the knowledge of regions as the home of men. As a geographer and philosopher, he said "he would busy himself with the business of life and of proper happiness . . . because the scene of activities of states

is the land and sea . . . The wisest heroes were those who visited many places and roamed over the world, for the poets regard it as a great achievement to have 'seen the cities and known the minds of many men.'" To him mathematical and physical geography were of interest as leading to a proper areal knowledge. Countries differed in their conditions of living, and to this he attached most importance.

Cosmologic and chorologic studies were carried on independently of each other, or either might be considered as an end to the other. This has been the general situation in which geography has found itself through all its history. Varenius, in 1650, made the first great modern attempt at a critical examination in the field in his *Geographia Generalis,* to be followed by a Special Geography which he did not live to write. He succeeded in validating general geography as "the science which considers the earth as a whole and explains its properties." Since then his general division and organization has been largely observed, especially on the continent. Special geography is commonly still taken to mean regional geography; the subject matter of general geography is still sometimes considered as broadly as general earth science, including human geography.[85]

The last great contribution to the whole of cosmologic geography was A. v. Humboldt's *Cosmos,* in which he proposed a system leading to "the scientific establishment of natural law." However, by this time general earth science was in process of losing permanently the fields of geology and anthropology; geography thereafter became in principle what it had been largely in effect, the science of the earth's surface. It is nothing less than that

[85] H. Wagner's great reference work in general geography, *Handbuch der allgemeinen Geographie,* now in its tenth edition, has for instance a lengthy consideration and one of the best bibliographies of the various fields included in the study of human geography.

today, and, in the opinion of many geographers, that is its final object.[86]

The reconciliation of the cosmologic and the chorologic position is not completed, and different students still consider the one or the other as end or as means. In general both the physiographers and anthropogeographers work in general geography, that is in the discovery of processes of universal validity. Regional studies are carried on by them, if at all, from limited view points, that is to elaborate one of their general principles. Such was essentially the position of Ratzel and his followers.

On the other hand there is a group which sees in the areal content the immediate end of the subject, out of which more or less generally valid principles of distribution are attainable, and a comparative science of regions. It is not possible to put these two groups into persistent theoretical opposition. They certainly differ as to method, the one attempting to understand the content of area, the other tracing out the phenomenal expression of individual processes or forces. We may say that chorologists are such geographers as place their major emphasis on the area, so as to understand increasingly its properties and expressions and to approach a unified viewpoint of the content and connection of areas in general.

To proceed further than this and to classify geographers as to their social theories is to enter on very uncertain ground. It cannot be emphasized too strongly that the geographer may begin solely with an interest in a category of observations, normally phenomena of the earth's surface, and that he synthesizes these observations according to geographic methods for geographic ends, which need have nothing to do with social theory.

[86] An able presentation of this position is F. v. Richthofen's rectoral address at the University of Berlin in 1903, *Triebkräfte u. Richtungen d. Erdkunde im 19ten Jhdt.*

Geographic determinism is a theory which has its adherents inside and outside of geography, with little reference to professional occupation. We may object therefore to Hankins' classification of geographers under a half-dozen types of geographic determinism, for no better reason than the one that the men are geographers.[87]

One may perhaps draw a parallel here between geography and history. Certainly most historians eschew any particular social theory. The fact that a man writes historical biographies is not considered a reason why he should consider history as made by great personalities. Nor is the political historian bound to the belief that political institutions are the determinants of social progress. There has been in all conscience enough use of geography by certain geographers and others to "motivate" history and to "account for social progress." That has, however, nothing to do with the qualifications of the geographer. Men study geography because it interests them, and because they are able to make observations on a certain body of facts by a sufficient scientific method. The interest that sustains geography is the same in general that at a popular level results in books of travel. The given category of the phenomenal that we claim, call it what you will, is the same, the surface of the earth, terrestrial distribution, the landscape, or the geographic region. Our ends are our own and those of the general advancement of knowledge.

There exists therefore no antithesis in principle between physical and human geography. "Human geography does not oppose itself to a geography from which the human element is excluded; such a one has not existed except in the minds of a few exclusive special-

[87] In *Theory and Prospects of Social Sciences*, pp. 314–315. Thus one finds Chisholm, McFarlane, and Dove in this list because, having written commercial geographies, they are supposed to find in "food and natural resources" the primary bases of social structure!

ists."[88] The question as to whether geography is a natural or social science has practical significance only in the curriculum, but is not pertinent to investigation. To put serious emphasis on a contrast between physical and human geography, as physiography and ontography, is to misunderstand the traditional position of geography in the field of knowledge.

Different periods have placed the emphasis in different places. Mathematical geography had developed to pretty mature status before Ritter. Without it the precise orientation of the surface features would have been impossible. Without its cartographic solutions we could not have had the maps by means of which we group our facts. The past half century has been given over predominantly to studies in physical geography, because this was properly the next field to open up, not because it exhausted the limits of geography. The field of climate is receiving particular attention at present. We are now sufficiently out of the rough in the field of physical geography so that we are becoming more concerned with cultural or human geography.[89]

The task of the next future, in line with the progress of the subject, is (1) the study of the cultural form content of the earth's surface, and (2) a comparative knowledge of regions in general. In France Vidal, Brunhes, Vallaux, Blanchard; in Germany Hettner, Passarge, Schlüter, Gradmann have led in reinterpretations of the field. To determine priority of opinion in these regards is a vain pursuit. We are rather in a general stage of

[88] Vidal de la Blache, *Principes de Géographie humaine*, p. 3.

[89] Our present knowledge of physical geography is admirably presented by Martonne, E. de, *Traité de géographie physique*, 1925; Wagner, H., *Handbuch d. Geographie*, 1920–1923; Supan, A., *Grundzüge d. physischen Erdkunde*, 1921; and Philippson, *Grundzüge d. allgemeinen Geographie*, 1921. Penck, A., *Morphologie d. Erdoberfläche*, 1894, is a classical work of earlier date.

development where parallel, more or less spontaneous developments are the rule.

In France all trails lead back to Vidal de la Blache. The *Annales de Géographie* bear witness through many years to his critical observations on method and objec-ves. The last methodical article published during his fe[40] elaborates the following principles: (1) terrestrial nity, which cosmologic view was dear to him always, 2) the combination of the phenomena, or their causal onnection, (3) the surface of the earth as the distinctive eld of geography, (4) the force of the milieu and adap-ation, (5) the significance of the descriptive method, and 6) the interrelation of geography and history. "What eography can add to the common treasure of knowledge s the understanding of correspondence and correlation of acts, be they in the terrestrial milieu which includes them ll, be they in the regional milieu in which they are local-zed." In his major position Vidal was a general geog-apher, like Ritter and Humboldt. There is a distinct netaphysical quality in his insistence on terrestrial unity. He made a remarkable contribution, however, in the regional studies by himself and his students, which developed systematically the origin and connection of French areas. He restrained also the enthusiasm of the environmental doctrine, by pointing to the "possibilisme" of the site and the choice of the group in its utilization. His posthumous work, *Principes de géographie humaine,* contains a most scrupulous appraisal of the milieu as setting limits to activity rather than as causing them, and a study of the autonomous areal developments of civiliza-tion in terms of certain critical cultural forms.

His pupil, Jean Brunhes, has done much to make more precise the objectives of human geography as part of gen-

[40] "Caractères distinctifs de la Géographie," *Ann. Géog.*, 1913, vol. xxii. pp. 289–299.

eral geography. His human geography is essentially a critical revision of Ratzel's anthropogeography, "characterized precisely by a reaction against the too abstract and indefinite features of Ratzel's work."

"For classification, the guiding element of Jean Brunhes, he limits himself to the human acts which are impressed on the surface of the soil in a visible, tangible, and measurable manner and which answer the satisfaction of the fundamental needs of the human race. He divides them into six types which may be grouped in pairs: 1. Acts of unproductive occupation of the soil: houses and roads; 2. Acts of vegetable and animal conquest: cultivation and breeding; 3. Acts of destructive economy. The essential facts being given, it is a question of determining what relations they can have to the soil, the relief, the climate, hydrography, and the vegetable and animal environment, and we should add, with men themselves." [41]

He holds that there should be no great regional inquiries so long as human geography is not complete as a science; it is also rather uncertain how much importance he attaches to regional studies except to bring out principles of connection between human activity and physical geography. His work, however, has been very valuable in furthering studies in the cultural landscape.

C. Vallaux, who has been associated with Brunhes, and is author of two volumes on *Géographie sociale, La Mer* (1908) and *Le Sol et l'Etat* (1910), has made a valuable analysis of the field in general in *Les Sciences Géographiques* (1925). He appears to espouse a plural field. The chapters on the terrestrial surface as an organism and on the rejection of final causes indicate that he is far on the way toward a break with traditional general geography. Admitting the usefulness in the past of the organic theory, he insists rightly that it is only an analogy, and says "that which strikes us above all today is the poetic and metaphoric character of this concept, the limitations of its points of view and the positive errors which it entrains."

[41] His own statement: "Human Geography," in *The History and Progress of the Social Sciences*, ed. H. E. Barnes, 1925, pp. 67–69.

In Germany the chorologic position appears prominently with Richthofen, who insisted not only on a limitation to the features inscribed in the face of the earth, but proposed also the comparative studies of regions, well known as to their composition. His *China* is perhaps the first major regional monograph in our literature. His own preoccupation primarily with physical geography does not detract from the general importance of his position. The high praise that he receives in Banse's *Lexikon der Geographie* as the "creator of the modern scientific geography" is not unmerited, and the attentive student can readily apply his critique of physical forms to the study of cultural forms. His disciples have moved increasingly toward a realization of a chorologic program. Hettner, Philippson, Passarge, Schlüter, Sven Hedin are some of his more distinguished scholars who have based their orientation on the position of their teacher.

Hettner in particular has opposed the idea that geography is general earth science either in the physical or human sense and has developed, aided by an unusual philosophical training and logical acumen, the chorologic position. He founded in 1895 the *Geographische Zeitschrift,* notable for areal and distributional studies in general, and especially for his own methodologic inquiries and critical reviews of literature, which at their best are perhaps the most valuable appraisals of what geographers are trying to do.[42] Hettner opposed in particular the classification of geography either as a social or natural science, vindicating it for the general study of terrestrial distributions as to their extent and explanation. In this he retained the tendency to regard as proper objects

[42] Note in particular: *Entwicklung der Geographie im 19ten Jhdt.*, vol. iv, pp. 305–320; *Wesen u. Methode d. Geographie*, vol. xi, pp. 45 ff.; *Methodische Streifzüge*, vol. xiii, pp. 627 ff.; *Methodische Zeit-u. Streitfragen*, vol. xxix, pp. 37 ff.

of geographic inquiry distributional facts that are not in themselves expressions of the landscape.[48]

Passarge, Schlüter, Michotte and others who have taken their position squarely on the science of area, will be considered in the following sections. In resumé it may be said that (1) there is increasing attention given to cultural facts in geography, (2) that although there is considerable difference in definition, the content of geography by reason of varied observation is increasing steadily, and (3) that there is a decided tendency to seek a position in the simple and traditional meaning of the field as areal knowledge.

A UNITARY ORIENTATION: CONTENT AND STRUCTURE OF LANDSCAPE

Without insisting on its exclusive propriety, it appears desirable to choose a position with reference to which all geographic work may be grouped. From this position we shall regard geography as a unifiable form of inquiry, representing an important branch of knowledge, without implying or denying the unity of its material or of the world with which it is concerned.

The various views may be grouped very roughly under the following heads:

(1) There are those who see an unabridgeable pluralism in the subject. In that case the subject is concerned

[48] Brunhes, *loc. cit.* in Barnes, misunderstands the orientation of German geography in devoting four and a half pages to Ratzel and disposing of the others under a final paragraph. To dismiss the work of Hettner and Schlüter by saying that they "are associated with the criticism, development, demonstration, and orderly arrangement of Ratzel's system" is to mistake the nature of their work entirely, though it expresses Brunhes' own geographic program. In intellectual descent neither these, nor most German geographers, are derived from Ratzel. Brunhes devotes thirteen lines to Friedrich, a faithful disciple of Ratzel, eleven to Richthofen, the reformator of German geography, three lines to an obscure follower of Ratzel, and merely mentions Wagner, Hettner, and Schlüter as cited above! Beyond this there is no notice of geographers or their work in that country.

with discrete problems which have become joined historically under one name, or which have a more or less accidental and fictitious connection. The definition of a position becomes then an idle pursuit, the field is open to cultivation without limits. Under this position geography is whatever those do who call themselves geographers. This encyclopedist position is perhaps not disadvantageous, but we have quite generally the feeling that we should be able to specify our objectives more precisely, that even in such high attainment as that of Wagner there is lacking a satisfying orientation.

(2) To that group which implies a unified and probably recoverable plan of the universe, we have applied the term, the cosmologic school. This certainly was the original basis of physiography under Huxley and of anthropogeography under Ratzel. The general geographers of the French school also appear to take very seriously the reality of terrestrial unity. An unfortunate emphasis on natural law is indicated, which is something much more binding than an expression of statistical relation. This position appears to assert as definitely final cause as did Ritter's teleology and to set up a particular type of causal connection as the basis of inquiry. Adherents of this position have produced some of our most valuable work, but their principal position, by demanding adherence to a truly metaphysical tenet, may cramp or divert geography from proper interests.

(3) Another group sees in the "Where" the distinctive quality of geography. Freed from the limitation of a specific causal connection, this position suffers from an insufficiently delimited field in another respect. On general grounds of knowledge one might defend geography and astronomy as the sciences of the Where, history and geology as the sciences of the When, but there is little gained thereby as to tangible ends. We may assert

our right to browse as widely as does the historian, claiming for our own simply the study of terrestrial distributions. Actually, of course, the historian does much less than this with the facts of time, for he undertakes a pretty definite restriction of his field as to material, namely by confining himself to the written records. Practically we are up against the objections that we are then likely to be working on the distributional expression of many facts wherein our competence is less than that of others,[44] then that there is known no discipline for the development of such studies other than some cartographic skill, and finally that distribution *per se* does not supply a common bond of interest. The geographer is hardly likely to prosper by giving his main attention to all kinds of distributional studies. In fact, Hettner, who has defended this position on theoretical grounds, has nevertheless directed his energies, those of his students, and the influence of his journal, primarily toward the growth of *Länderkunde.*

(4) The most substantial additions to knowledge made through geography appear to be by the steady accumulation and increasing meaning of regional data, concerning the landscape itself. Humboldt's *Cosmos,* admired by his generation as a masterpiece, interests us only as an item in the history of science, but to his observations on Mexico and South America we shall always refer as the most trustworthy material on those countries at the beginning of the nineteenth century. Münster's cosmography and Strabo's geography may be ever so curious as to their scientific hypotheses, but in so far as they contain observations on countries and their people

[44] For example, Langhans, in *Petermann,* 1926, No. 2, has made a geographic study of the rights of self-determination as represented by the various governments of the world, in which obviously the critical element is not the distributional map, but the analysis of the forms of self-determination, a purely political question.

they are forever treasure troves for the geography of their time. We therefore return to the simple phenomenal position of the landscape as the *material* of geography (*géographie régionale, Länderkunde*), which we are to observe, describe, and explain according to the best methods at our hand. In this position the distinctive thing is that a certain field of *observation* is claimed for the science, and that like all observational sciences, geography discovers meaning in its observations by gradually cumulative synthesis of descriptive data, secured by increasingly improved method.

It then becomes the task of geography to grasp the content, individuality, and relation of areas, in which man comes in for his due attention as part of the area, but only in so far as he is areally significant by his presence and works. This is a unitary and attainable objective. The landscape is constituted by a definite body of observational facts that may be studied as to their association and origin. Such a study becomes scientific if we note the connections between the features of the landscape and their derivation, attaining thus to group or general concepts. A catalogue of rivers or towns is not yet science. But if we note that there are certain repeating patterns in the forms of settlement, that they are in relation to other cultural and natural features, that they can be grouped as to origin and function, we are doing scientific work. In particular if we can establish significant connections and contrasts with other areas we are establishing a science of areas.

The design of the landscape includes (1) the features of the natural area and (2) the forms superimposed on the physical landscape by the activities of man, the cultural landscape. Man is the latest agent in the fashioning of the landscape. The study of geography begins therefore with physical geography, but—coasts are marked by

ports; mountains have flung over them the trails and workings of man. A phrase that has been much used in German literature, unknown to me as to origin, characterizes the purpose perfectly: "the development of the cultural out of the natural landscape."[45] This is the newer orientation that continues the traditional position.

This orientation owes much, as has been acknowledged, to Richthofen and Hettner. In this country it has been presented forcefully by Fenneman.[46] Its methodical development has been undertaken most particularly by O. Schlüter:

"It is not proper to found a science in terms of a particular nature of causal connections, since the causes must always be discovered, not postulated a priori. If we wish to explore the influence of nature on man, we must take into consideration all expressions of human life. Thus the circle of facts with which human geography would be concerned, finds itself extended into the infinite, and everything is then to be regarded from the one-sided manner prescribed by the general view-point. How easily then is the methodic principle crystallized into a dogma that leads us to seek and to find everywhere geographic controls and thus robs us of impartiality in the face of the phenomena! What we desire, is the opposite: limitation in the subject matter and objectivity in the observation. Anthropogeography is lacking in a descriptive basis, that is morphology, and that not alone as to method, but as well as to objects. We must therefore search in human geography for those things that are themselves a part of the landscape. Here we shall discover that in the realm of human activities there is no lack of objects, which belong as properly into the landscape as do forests and meadows, rivers and mountains."[47]

"The need of joining the various kinds of observations into unity becomes compulsory when a definite part of the earth is to be represented. Here for the first time, geography appears with a very definite program, peculiar to it alone, by demanding that the various elements of the landscape be put together in a coherent frame. Primarily we are concerned with visible, corporeal objects. Man is considered in addition to his work, not as individual, but in his varying expressions of population density. Visibility and tangibility of the objects is, however, not sufficient. In addition they

[45] It is found in essentially this form in J. Wimmer, *Historische Landschaftskunde*, 1885.

[46] *Ann. Ass. Am. Geog.*, 1919, vol. ix, pp. 3–12.

[47] *Ziele d. Geographie d. Menschen*, 1906. The entire study is worthy of careful attention, including the lengthy notes, such as the critique of Hettner in note eight.

must have significance in the composition of the landscape. They must have therefore a certain areal extent or must be capable of being comprised mentally in areal terms."[48]

Whereas Hettner has been anxious to vindicate the study of spatial distributions in general for geography, Schlüter would consider only the spaces themselves as to their constitution. Michotte also agrees that the subject is concerned with "the scientific description of the diverse terrestrial spaces or landscapes (*paysages*):

"The surface of the globe is composed of a mosaic of spaces differing in design and in physiognomy. One can conceive them in their actual complexity (regional geography), or by a process of 'abstraction' in our minds, to consider separately their several aspects, to decompose the spaces according to multiple traits into elementary spaces (special geography). To delimit these spaces, to describe and explain their characteristics in applying the principles of systematic or historical science, to class them into spatial hierarchies of greater and greater extent (general geography and comparative special geography), this is the whole object of geography; it is in the proper sense of the word a geo-graphy, a scientific description of the diverse spatial unities."[49]

Brunhes, though interested primarily in the "characteristics of dependence upon the geographical environment," and concerned with regional studies mainly in order to "learn to discern and evaluate the strictly geographical relations between physical facts and human destinies," has called attention to a most valuable classification of landscape forms in his "essential facts of human geography." Under unproductive occupation he includes house forms, settlements and roads. The facts of plant and animal conquest are the areal features of agricultural production. The facts of destructive exploitation are the areal expressions of the extractive

[48] *Idem*, 1913, in *Geog. Anz.*, vol. xxi, pp. 142–152, 213–218.

[49] *Op. cit.*, p. 39. Further illustrations of similar position are to be found in Friedrichsen, "Die geographische Landschaft," *Geog. Anz.*, 1921, pp. 154 ff. (also developed by him before the Geographentag of 1925); and Krebs, N., "Natur-u. Kulturlandschaft," *Ztschft. Ges. Erdk.*, Berlin, 1923, pp. 83 ff. A most recent excellent statement of geography as the comparative science of areas is Braun, G.: *Zur Methode der Geographie als Wissenschaft*, 1925.

industries (*Raubwirtschaft*). These chapters of his *Human Geography* have become the common property of virtually all geographers in this country. One may well criticize the grouping of the facts, but the orientation is important.

Vallaux, in his *Sciences Géographiques,* classes the data of geography as *tours d'horizon* and *faits de masse:*

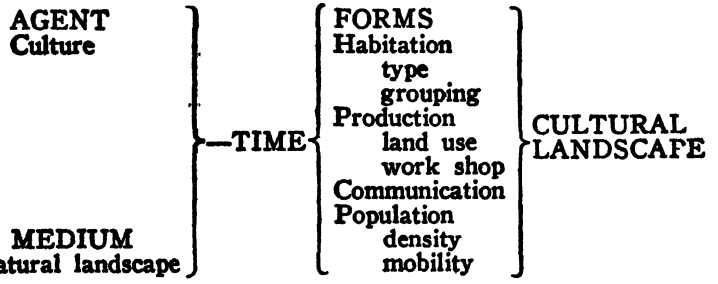
> We conceive geography more and more as a science of forms and of synthetic procedure. The *tours d'horizon* comprise all the ensemble of facts which the geographer can group in the field of his vision, be it real or ideal, the latter constituted, by the aid of cartographic representations, of birds'-eye views. We thus attain to what we may call zonal vision. Certain facts come to us from other sciences, belonging to the category of things not directly visible. If we reunite them with the facts of visual observation, they constitute the second large category of geographic materials, the *faits de masse.*
>
> The transformation of natural regions and substitution therefor of entirely new or profoundly modified regions is precisely the object of inquiry of human geography. It is not limited at all, as was long believed, to proportioning the influence of natural agents on social groups. Its essential object is to observe the transformation of the surface as effected by man, the determination of what we might perhaps call the fourth state of matter. The new landscapes which human labor creates deform more or less the natural landscapes. The degree of deformation of the natural landscapes may be regarded as the veritable and exact measure of the power of human societies. The physical area is expressed through two essential modalities, it can be for man a limitation or an advantage (*adjuvant*).[60]

The study of the physical landscape does not concern us here, except to note that it is fundamental. The best consideration to date of this field is contained in Passarge's elaborate *Grundlagen der Landschaftskunde* (1919–1921), an analysis of the form content of landscape, principally of the physical landscape. The work contains excessively schematic parts, but it is nevertheless a momentous formulation of method. Himself the author of some of the best studies on African regions and formerly a physician, he has set himself the task of writing the anatomy of area. This is not a gross analogy,

[60] Abstracted from Chaps. iii–ix.

for we regard the geographic area as a corporeal thing, which is approached by the characterization of its forms, recognized as to structure, and understood as to origin, growth and function. One may be ever so conscious of the fictive character of the region as an organism, its study under such a view-point yields significant results, if its specific identity is not taken with too much seriousness.

By the aid of a diagram we may perhaps illuminate the field of human geography under this working hypothesis:



The cultural landscape is fashioned out of the natural landscape by the cultural group. The group is the active force, the natural area the medium (milieu) in which the group works, the cultural landscape is the result. Under the influence of a given culture, itself changing through time, the landscape undergoes development or deformation, perhaps reaching a climax of development, unless rejuvenation sets in through the introduction of new cultural elements.[51]

REGIONAL GEOGRAPHY: THE EXPRESSION OF THE GENERAL OBJECTIVE

Under this unitary view the final goal of all geography is regional geography, as it is called in English and French, or *Länderkunde* as known to the Germans, the

[51] Sauer, "Morphology of Landscape," *Univ. Calif. Pub. Geog.*, 1925, vol. ii, No. 2.

Landschaftskunde (landscape lore) of Passarge's school. The preceding section has outlined the general content of such study. Its final expression is found in the comparative study of geographic areas.

The definition of area is still somewhat troublesome. Such general regional geographies as H. R. Mill's excellent *International Geography* do not concern themselves much with this matter, taking the convenient limits of countries for their regional subdivisions. In general we attempt to define the qualities and limits of the natural region and note the extent of agreement and departure therefrom of the cultural regions. Less commonly we take the cultural region as the unit and derive it from its natural bases. We may have therefore two bases of classification of our regions. It is necessary to remember that the two are to be kept distinct; to presume that a natural region will express itself in a cultural region and be identical in limits is to drop back into the environmentalist position.[52]

The time is hardly ripe for great regional syntheses. All such attempts show in the main to how small an extent comparative regional geography exists as yet. Passarge has recently attempted such a synthesis in his four-volume *Vergleichende Landschaftskunde,* with more success in the statement of problems and methods than in the content. A smaller publication by him on the same subject is *Landschaftsgürtel der Erde.*

Bit by bit, however, we are working out the forms of the landscape, physical and cultural, into patterns, that show at the same time individuality and resemblances to other areas. We are thus acquiring a more orderly knowledge of our materials. A parallel to anthropology suggests itself. This field was formerly dominated by the

[52] Michotte, *loc. cit.,* pp. 34–37.

idea of race, a *simpliste* dogma to which observations were accommodated. The progress of modern anthropology really began with the destruction of the racial creed, and with the slow piecing together of cultural patterns. Similarly, we are not constrained to hold to any thesis, but simply to observe carefully the materials that lie within our scope as to their full generic and genetic connotation. If there is one form in which we are ready to ask a general question in the cultural phase of our studies, it is probably this: To what extent is man as a terrestrial agent, that is by his areal expressions of culture, living harmoniously in nature (symbiotically), and to what extent is he setting narrowing limits for future generations by living beyond the means of the sites that he occupies? Man, for instance, appears, periodically, to effect his own ruin when he sets up advanced cultures in desert regions. He has certainly been an engine of unparalleled destruction in many newer areas opened up to commerce in the last century. Such an inventory of a region needs to inquire most carefully into human initiative in the transformation of nature and into man's regard for the permanence of his home, conditions that are very variable in different groups and at different times. In other words, we regard the fact that there are limits in nature against which man may come up most unpleasantly by his actions.

The earlier regional studies are likely to be broadly-sketched outlines of the composition of landscapes, reconnaissances that set problems and suggest areas of superior interest. Of this type is Vidal's *Tableau de la Géographie de la France* (1903), a genial introduction to all French regional geography, charming in execution, significant in method, brimming with ideas. Text, map and picture are here combined to vivify the scene in the

best manner.[58] Among German comparative regional studies that recognize regional individualities are the older *Allgemeine Länderkunde,* edited by Sievers, containing Philippson's *Europa* and the *Grundzüge der Länderkunde,* begun by Hettner in 1907 and now being reissued in revised form. Three contributions that represent excellently current German results in comparative regional study are Friedrichsen's *Methodischer Atlas zur Länderkunde Europas* (begun 1914), a cartographic analysis of the components of geographic area, G. Braun's *Deutschland* (1916), in which in particular the ordnance map is used by means of selected, intensively studied type areas to illustrate regional individualities, and the new edition of *Seydlitzsche Geographie* (1925), that rarity—a text that is a scientific contribution. The British *Oxford Survey of the British Empire* follows more familiar encyclopædic lines, but Mackinder's series on the regions of the world contains notable contributions, such as his own *Britain and the British Seas,* Partsch's *Central Europe* and Israel Russell's *North America.* Mention should also be made of J. Russell Smith's *North America* (1925), an American contribution of popular appeal. Valuable as these more general studies are as hand-books and mellowed as some of them are by ripe experience, for the real documents of geographic progress we must turn to more intensive studies of more restricted scope.

In first place come the inquiries into individual categories of forms. The cultural forms fall most readily into those of settlement, communication, and land utilization. On the continent types of settlement have attracted much attention; the Germans speak directly of a branch of Geography called *Siedlungsgeographie.* The work of

[58] Other superior regional geographies of France are Gallois, L., *Régions naturelles et noms de pays,* 1908 and Martonne, E. de, *Régions géographiques de la France,* 1921. The former is especially valuable for its critique of the concept of the region.

A. Meitzen in particular is responsible for the development of this field. In 1882 he presented before the German congress of geographers a pioneer study on house-types as criteria of areal differentiation of cultures. In 1895 appeared his monumental *Siedlung und Agrarwesen*, tracing historical derivation of settlement forms, with abundant cartographic documentation, among the Germanic, Celtic, Latin, Slavic and Finnish stocks of Europe. He determined the persistence of such cultural forms after the loss of national consciousness, and established a classification of habitation types by which the historical transformation of the landscape acquired a new legibility and significance. A related study in France is that of de Foville, *Les Maisons-Types* (1894-1899). Geisler has concerned himself especially with urban forms, considered as to physical site, as to structure in plan and profile, and as to general classification.[54] In France Demangeon and Bernard are known for their classifications of rural types of habitation.[55] During his stay in this country, Aurousseau contributed the best summaries of the field in our language.[56]

Meitzen's monograph also concerned itself with the analysis of areal types of land utilization according to historical derivation. This field, as well as that of communication forms, developed apart from general regional study, is normally part of economic geography, and will be considered there further.

Studies of density of population may be made in terms of average densities or in the identification of actual localization of residence (*Wohnplatz*). Cartographically

[54] *Die deutsche Stadt*, 1924, "a contribution to the morphology of the cultural landscape."

[55] *Habitation rurale en France*, *A. de G.*, 1920, pp. 352-375; *Enquête sur l'habitation rurale des Indigènes de l'Algérie*, 1921.

[56] "Arrangement of Rural Population," *Geog. Rev.*, 1920; *Recent Contributions to Urban Geography*; note, *Ibid.*, 1924; Waterman, *Geography of Indian Dwellings*, *Ibid.*, 1924, pp. 1-24.

ingenious solutions of population density in this country are associated in particular with numerous studies of Mark Jefferson. Perhaps the most satisfactory study of population distribution is Sten De Geer's magnificent monograph on Swedish population, *Befolknings Foerdelning i Sverige* (1919). A valuable British contribution is P. M. Roxby's *Distribution of Population in China.*[57] The methodical question as to how the facts of population are to be analyzed are set forth with great thoroughness and abundant citation by Eckert.[58]

To use a convenient though inexact phrase we may say that the studies cited above in the field of regional geography are analytical. We may then characterize as synthetic the intensive methodical studies on small regions.[59] The series inspired and edited by Vidal is especially notable, with de Martonne's *Valachie,* Demangeon's *Picardie,* and Blanchard's *Flandres* as the pioneer volumes. The historical spirit that permeates these studies, all of them showing "how the cultural landscape is developed out of the natural landscape," is well expressed in the following condensed conclusion from Blanchard (1906):

"Flanders has taken its form so to speak in spite of nature; it is a work of human labor. The physical qualities of the Flemish land are meagre and few, its faults great and numerous. The climate is disagreeable and its humidity aggravates the imperviousness of the soil. There are two major types of land, one fertile but swampy, covered with stagnant waters, menaced from on high by storms, from below by seepage, the other less wet but of low fertility. Nature as a whole frowns on this land. But the admirable situation of the land called people to it; Flanders was cast for a passageway, a country of exchanges. The inhabitants, becoming numerous, forced the hand

[57] *Geog. Rev.*, 1925, pp. 1–24.

[58] *Kartenwissenschaft*, 1925, vol. ii, pp. 152–211.

[59] *La Bibliographie Géographique* is at present the leading annual review of geographic literature, well organized by countries. The *Geographische Jahrbücher* are better for the earlier years and still contain the fullest review of the German literature.

of nature. There are few lands in which the aspect, the value of the soil, the site of water-courses, the regimen of streams, in one word the geographic conditions, have been equally transformed by man. The marine plain has been laid dry, the land changed in constitution, the forests cleared,—the imprint of man is everywhere. His presence dominates the geographic character of the land."

The volume was published twenty years ago. Since then Blanchard has abundantly fulfilled his promise as a regional geographer. Presiding over the geographic institute at the University of Grénoble, he has established there a centre for Alpine studies from which the world is drawing valuable suggestions. His has not been the comfortable course of issuing sonorous phrases from his cabinet but of steady production of intensive studies, based on systematic observation ranging through the entire field of geography and fitting gradually into a comparative regional knowledge of southern France. The *Revue de Géographie Alpine,* which he issues, is to be placed in the first rank among our scientific journals. Arbos and Allix in particular are to be mentioned as capable collaborators. Some of the more recent articles have discounted the human devastation familiarly assigned to the southern Alps, have analyzed the effects of emigration from various Alpine areas, and in particular have added excellent urban monographs.

City geography is enjoying particular favor at present in France, fostered most particularly through M. Poëte and the journal *La Vie Urbaine* (founded in 1919). The number of city monographs issued in France is greater than in any other country and foretells an early comprehensive view of the nature and growth of French cities. Mention may be made especially of Levainville's penetrating monograph on *Rouen* (1913).

French regional geography also claims as its special field northern Africa. Here in particular is the scene of studies of A. Bernard and E. Gautier. Even for North

America, French geography has produced a model study of Newfoundland.[60]

In Germany, the first citation would be to N. Krebs, *Länderkunde der österreichischen Alpen,* for the most thorough-going evaluation of a mountain area, and to Philippson, *Mittelmeerländer.* The cultural landscape has been the scene of inquiry by O. Schlüter of Halle and Gradmann of Erlangen. The latter has worked particularly on Württemberg, for which he has published a series of *Siedlung* studies of most substantial character, identifying forms of settlement in varying terrains according to the historical types first determined by Meitzen. Gradmann has been for some years the editor of the *Forschungen zur deutschen Landes-und Volkskunde,* the most important repository in any language of systematic regional studies. Among its more recent publications are volumes by Gradmann on rural and urban habitations, and Leyden's volume on the cities of the Flemish plain.

Gradmann has further recently taken account of the esthetic movement in geography,[61] as represented by Banse in one direction and Ponten in another.[62] Mention should be made also of P. Schultze-Naumburg's *Gestaltung der Landschaft durch den Menschen,*[63] a superb appreciation from the esthetic standpoint of man's works in the landscape. Picture and text are skilfully combined to urge the preservation of the natural and historical charm of the landscape, based on the theme that man forms a pleasing and harmonious element in the landscape

[60] Perret, R., *Géographie de Terre Neuve,* 1913.

[61] "Das harmonische Landschaftsbild," *Ztschft. Ges. Erdk.,* Berlin, 1924.

[62] Banse is issuing a journal stressing the esthetic motif, *Die Neue Geographie.* His very popular volume, *Die Türkei,* joins scientific areal knowledge with a lively impressionistic touch by which he attempts to penetrate the "soul" of the landscape. Ponten, a literateur of merit, has undertaken a descriptive account of Greece, in which science and literature are well combined, *Griechische Landschaften.*

[63] Second Edition, 1923.

unless commercial exploitation causes him to lose his sense of fitness.

In Scandinavia and Russia geography and adventure are strongly linked. All the world knows the Scandinavian preoccupation with the study of the Arctics, almost poignantly expressed by Nansen's *In Northern Mists* (1911). The Danes are maintaining a valuable journal for studies on Greenland, *Meddelelser om Grønland.* The remarkable activities of Sven Hedin may be cited as perhaps the most brilliant modern examples of geographic exploration. From the cultural standpoint his discoveries are as rich as they are in physical geography; in particular he has illuminated that most intriguing topic in the theories of human migrations, the climatic history of the Asiatic "heart-land."

Great Britain has its usual quota in recent years of great geographer-explorers, such as Johnstone, Doughty, and Stein. The British Isles have lain curiously neglected since the days of the Geikies. The *Geographical Teacher* has had a number of contributions to the knowledge of the British cultural landscape. Miss Newbigin has viewed the continent shrewdly and sympathetically in her *Mediterranean Lands* and *Frequented Ways.*

Isaiah Bowman's *Andes of Southern Peru,* Meinzer, Bryan and Gregory in the official water supply papers, and the midwestern state survey bulletins, represent the major part of American regional geography that regards the cultural landscape. In our elder literature there was a lively interest in the features and problems of our areas, as witnessed by numerous publications in the national geological survey. Willard Johnson's *High Plains and Their Utilization,* is still one of the finest studies in our literature.[64] The rising tide of physiography and environ-

[64] *Twenty-first Ann. Rep. U. S. G. S.,* Pt. 4, pp. 599–741.

mentalist human geography appears to have suppressed largely the succession to Shaler, Russell, and the other genial figures of the past generation.

The abundant collateral literature on town planning has its geographic expression in the rationalizing of urban growth by the optimum utilization of site, as shown by P. Geddes' *Cities in Evolution* and Lilienberg's volume on the *International Cities and Towns Planning Exposition* (Gothenburg).

HISTORICAL GEOGRAPHY

The conventional historical geography in this country is a study of geographic influences in history. Stimulated by the example of Miss Semple and Barrows there have been numerous American studies from this viewpoint. Miss Semple's own recent contributions have been largely in the Mediterranean field.[65] H. B. George's *Relation of Geography and History* is a leading English exposition of the same position. It is not the attempt of this review to decry such studies. Under the orientation proposed they do not fall clearly within the field of geography, but are rather geographic history. They are interpretations of historical events or conditions that are presumably "geographically conditioned."[66] It is certainly useful that this field be developed critically, but the purpose is rather to explain history than to characterize area. Why should not the historian utilize the work that the geographer does in his own province rather than have

[65] "The Barrier Boundary of the Mediterranean and Its Northern Breaches as Factors in History," *Ann. Ass. Am. Geog.*, 1915; "Climatic and Geographic Influences on Ancient Mediterranean Forests and Lumber Trade," *Ibid.*, 1919; "Geographic Factors in the Ancient Mediterranean Grain Trade," *Ibid.*, 1921; "Influence of Geographic Conditions Upon the Ancient Mediterranean Stock-Raising," *Ibid.*, 1922.

[66] For further appreciation of such studies reference is made to H. E. Barnes, *The New History and the Social Sciences*, Chap. ii.

the geographer write interpretations of history? Perhaps the situation will take care of itself automatically. Where a student is particularly well grounded in both geography and the history of an area, as Miss Semple is in our South and F. J. Turner in the old frontier, competence in both directions will result in a symmetrical evaluation of the historical scene. Proceeding however essentially by historiographic method and lacking any morphologic element such as is fundamental to geography in general, this work is one to which the geographic student should come, if at all, late in his career.

Under the unitary view of the materials of geography, historical geography is simply the study of the landscapes of the historic past. The earliest adequate introduction to this view-point known to me is J. Wimmer's *Historische Landschaftskunde* (1885), still a valuable, though little known, work. The subject of historical geography is therefore not at all to be distinguished in principle from regional geography. An adequate regional study elaborates systematically the changes that the landscape has undergone through human occupation. In consequence, the cultural landscape is based of necessity on a knowledge of the historical *encadrement* of cultural forms, as illustrated by Meitzen's work in the previous section.

One may therefore regard historical geography as properly an integral part of all regional geography. Some geographers maintain that from the usual regional geography the historic landscapes should be excluded except in so far as they are still significant in the region.[67] For the present this is putting rather a fine point on our studies. For one thing it is systematically difficult to proceed from the present cultural landscape only, and

[67] Unstead, "Geography and Historical Geography," *Geog. Jour.*, 1922, pp. 55–59.

then to fit its apparently more ancient features back into their historical origins. This may be a convenient short cut and even a means of attaining conciseness. It is, however, a matter of greatest interest to note the transformations of the cultural landscape and to account for their replacement by different, possibly very different, conditions of areal utilization. This periodic reorientation of human areal utilization is certainly a logically consistent expression of historical geography.

There is no doubt that such inquiry requires a considerable proficiency in historical matters, but the attention is of a sort that is not ordinarily developed by the historian. Without such historical skill the geographer had much better stop with the physical landscape; with it he may complete the study of the development of areal individuality. If a retirement is indicated in the direction of "geographical influences in history" the geographer may well claim a logical right to exploit a part of the sadly inchoate field of "culture history," as expressed in the changing cultural landscape. Here certainly is a territory in which the geographer, if any one, is ready to introduce a scientific method.

A partially autonomous field, yet one that is to be integrated strictly into such a program, is the geography of exploration, the reconnaissances by which "civilized" man prospected the world in order to determine upon areas for settlement and colonial exploitation. A large literature has developed through the labors of great specialists. The publications of the Hakluyt Society, with the contributions of Clements Markham, Yule and others, are a continuing addition to knowledge in this field, as are the volumes of the Linschooten Vereeniging, and those of the Hispanic Society of America, notable through the studies of E. L. Stevenson. Among the more recent eminent contributors to this field may be men-

tioned R. Almagia, G. Andersson, J. Baddeley, H. Cordier, K. Kretschmer, J. L. Myres, A. E. Nordenskiöld, E. Oberhummer, J. Partsch, S. Ruge, Chr. Sandler, P. Teleki, H. Vignaud, F. v. Wieser and A. Wolkenhauer.

To approach the field of historical geography we may abstract a statement from Vallaux:

> "The points of departure are first of all in the natural landscapes, then in the human groups. To describe the human landscape without knowing how these landscapes are constructed is to put the cart before the horse. The first solid basis to establish is therefore the physical geography which supplies it. There are to be reconstituted in general the natural landscapes, in which the activity of the living world is comprised, such as nature made them, as though there had not been a living person on the earth."

In other words, the first reconstruction ideally is that of the physical landscape before man (historic man?) entered on the scene. The differentiation is likely to be greatest and most significant in terms of vegetational cover. To attain a reconstruction of the natural "original" vegetation is to get the major datum line in most areas from which human "deformations" are to be measured.[68] To a larger extent than popularly supposed man has avoided the dense forest lands in most climates and has appropriated grass and park lands. It is one of the major needs that we get valid reconstructions of the natural vegetation before the permanent alteration of the country by agriculture.[69]

Next comes the reconstruction of the landscape as it was in the period of colonization, the location of the hearths from which settlements expanded, and the manner

[68] It is, therefore, of great significance that Shantz and Baker undertook the reconstruction on a small scale of the native vegetation of this country, as shown in the latest section of the *Atlas of American Agriculture*.

[69] Farther in the background is, for this country, the deformation of the "native" vegetation by the Indian. In numerous areas that were grass lands at the time of settlement, this grassy condition may have been induced by the Indian. He may, therefore, not have been the negligible factor in the landscape commonly supposed.

of expansion and land utilization. This was the stage of prospecting the land by trial, of determining superior or at least feasible sites for the needs of the group. Between the estimate of site as made by the pioneer community and present-day judgments of areal quality there need be of course little or nothing in common. The usual thing desired was not the possession of a great commercial resource but the possibility of developing a self-contained community.

Thereafter historical geography is concerned with such major changes as may take place in the cultural landscape, by internal development, by replacement of population, by new bonds or barriers that develop in cultural orientation. Such alterations in the cultural aspects of area are well analyzed and explained in Blanchard's study on Flanders. Whatever the causes of the successive transformations, the primary fact is the transformation, which is to be understood in its full significance, not in terms of a single type of causal condition as by environment.

In so far as such studies have been carried on apart from the general regional inquiries, a few illustrations may be cited.[70] Schlüter has been engaged for years in the reconstruction of the early rural settlements of Germany.[71] Wahle has concerned himself with pre-Roman settlements in southwestern Germany.[72] Sebus

[70] For classical antiquity these reconstructions are greatest in number, dating back to d'Anville and even to Ortelius (*Parergon*), and associated in the mid-nineteenth century with such names as Spruner, Kiepert, Berger, and Himly.

[71] Note the article on the cultural expression of old Prussia before the conquest of the Teutonic knights, *Geog. Ans.*, vol. xxi, pp. 244–249. The remarkable map distinguishes on a scale of 1:500,000 the cleared areas antedating the conquest, the delta lands reclaimed during that period, and the forest and marsh lands that have been reclaimed for agriculture since that time.

[72] 12th Rep. *Römisch-Germanische Kommission.* A critical appreciation of such studies is given by Gradmann, "Zur Geographie d. Vor-u. Frühgeschichte," *Geog. Ztscht.*, 1922, pp. 26–29.

has provided an insight into the very interesting conditions of early Dutch settlements.[73] Urban studies are numerous. M. Poëte's cyclic development of the plan of Paris is highly commended,[74] Braun has done the evolution of Strassburg,[75] and Penck's students have contributed a series of studies on the development of Berlin. The continental journals contain currently examples of work methodically valuable in this field.

The sequences of cultural landscapes may result in time in a balanced condition, at which significant change stops, as it were, a climax form. From this degeneration may set in, as in the case of those of our rural areas which are witnessing large-scale farm abandonment, or a different cultural succession may be initiated due to a new impulse. Such succession is the particular theme of historical geography.

COMMERCIAL AND ECONOMIC GEOGRAPHY

Commercial and economic geography has been for the most part applied geography. In that form it has existed for two centuries, rising to importance with mercantilism, expressed in a large number of manuals, handbooks, and text-books for merchants and students of commerce, largely statistical compendia.[76] The issuing of text-books still goes on apace. The most important advance was made by G. C. Chisholm's *Handbook of Commercial Geography,* first issued in 1889, still a model for succinct, dependable treatment. He introduced three major

[73] "De oudste geschrieven berichten over ons land," *Td. K. Ned. Aardr. Gen.*, 1923, pp. 27–49.

[74] *Une vie de cité,* 1924, vol. i.

[75] *Entwicklungsgeschichtlich-physische Planskizze v. S.*, Petermann, 1914.

[76] Kraus, A., *Versuch einer Geschichte d. Handels-u, Wirtschaftgeographie,* 1905.

divisions: the factors of production, the commodities of commerce, and the commercial areas.[77] This organization appears in other books with many variations. The usual subdivision of the field is (1) as to the sources of primary production, that is the approach by commodities, and (2) the commercial significance of areas, those qualities of area which constitute what we may call the economic landscape.

Distributional studies of production have most largely been carried out, and most properly, by non-geographers, namely botanists, geologists and economists. This is an illustration of the fact that "geographic distribution" is not the special province in which the geographer is necessarily most competent.[78]

The excerpt from the general geographic area that we may call the economic landscape received systematic attention from E. Hahn, whose classification, in 1892, of the agricultural regions of the world into collecting (*Sammelwirtschaft*), hoe culture (*Hackbau*), plantation culture, field culture, and horticulture has been revised as to cartographic limits but has remained fundamental.[79] Herbertson, Friedrich, and others have experimented with commercial regions, as yet however for the most part without well defined criteria other than by the transfer of climatic regions into commercial regions, really an environmentalist solution. The work of Th. H. Engelbrecht is most carefully thought out, with a great control of facts, and constitutes a real advance in

[77] *Bartholomew's Atlas of World Commerce,* 1906, is a parallel, major cartographic contribution. Heiderich and Sieger, *Andree's Geographie des Welthandels,* in three volumes (4th edition begun 1926), is the most exhaustive treatment.

[78] Note the great monographs composed by geologic specialists: *The Iron Ore Resources of the World,* Stockholm, 1910, and *The Coal Resources of the World,* Toronto, 1913.

[79] *Petermann,* vol. xxxviii.

the characterization of commercial areas.[80] K. Sapper, following an original and thoughtful discussion of the cultural realms of the world, submits a classification and analysis of the economic areas, most markedly in advance of those of Hahn. The central sections of his new volume are perhaps the most finished consideration of the economic landscape as a part of the cultural landscape.[81]

In France the commercial area is receiving attention particularly in the form of port studies, an urban commercial geography. Illustrations are Demangeon's *Port of Paris* and Levainville's *Port of Strasbourg*.[82] A series of monographs are appearing under the collective title *Les grands ports français*. In Holland the highly meritorious journal *Tijdschrift voor Economsche Geographie*, now in its seventeenth year, was for years unapproached in the commercial field, especially as regards colonial exploitation.[83]

In America economic geography is flourishing and faring relatively better than the other phases of the subject at present. From the Chicago school have come the adequate commodity studies of Colby on the California raisin industry and the apple industry of Nova Scotia.[84] Clark University began the magazine *Economic Geography* in 1925, which has set a high standard in its field. In particular, Olof Jonasson's *Agricultural Regions of Europe* may be commended as showing what the truly

[80] *Landbauzonen der aussertropischen Länder*, 1898, and *Landwirtschaftlicher Atlas des Russischen Reichs*, 1916; on the commodity basis his *Feldfrüchte Indiens in ihrer geographischen Verbreitung*, 1914, should be mentioned.

[81] K. Sapper, *Allgemeine Wirtschaft-u. Verkehrs Geographie*, 1925, especially pp. 102–158.

[82] *Geog. Rev.*, 1920, pp. 277–296; *ibid.*, 1923, pp. 243–254.

[83] A good example of the "commercial area" treatment is Blink's *Economic Geography of the Province of Groningen*, historically regarded, 1913. As senior editor his influence has been marked in the development of the journal.

[84] *Ann. Ass. Am. Geog.*, 1924, pp. 49–108; *Econ. Geog.*, vol. 1, pp. 173 ff.

geographic method is in economic geography.[85] O. E. Baker, of the U. S. Department of Agriculture, more than any other man has reoriented research in economic geography. In addition to planning and directing the *Atlas of American Agriculture,* appearing serially, perhaps the leading contribution to American geography of the last decade, and to his contributions to the remarkable series of commodity articles that have constituted the *Yearbooks* of the Department of Agriculture since 1921, he has collaborated with V. C. Finch in the *Geography of the World's Agriculture* (1917). He has also written on the increasing importance of the physical factors in land utilization,[86] made a truly geographic study of land utilization in this country,[87] and contributed to an extraordinary symposium on the Great Plains.[88] His influence is felt, not only in the development of the studies at Clark, but by economic geographers throughout the country. In the simpler commodity studies American geographers have done good work for some time; Baker, Jonasson, J. R. Smith, and James suggest that the economic landscape is about due to be opened up by methodical inquiry.

POLITICAL GEOGRAPHY

Political geography is particularly hard to fit into the idea of a general discipline for all geography; of it we should perhaps say that it is the wayward child of the geographic family. It is certainly the least scientific: Method and material are free to the choice of the student. Interest can be translated promptly into action and expertness is more easily claimed than judged. Consciously and unconsciously it has been used as a shield for political beliefs. The subject is mixed up especially with

[85] *Econ. Geog.*, vol. i, No. 2, and vol. ii, No. 1.
[86] *Ann. Ass. Am. Geog.*, 1921, pp. 17–46.
[87] *Geog. Rev.*, 1923, pp. 1–26.
[88] *Ann. Ass. Am. Geog.*, 1923, pp. 41–167.

nationalist aspirations, in which case it may serve as a "scientific" reason for violating the Tenth Commandment. Political claims have been set up in terms of "natural" boundaries and "geographic unity," which have derived a spurious sanction from such arguments. At best, it is again the naïve environmentalist position which identifies cultural and natural regions. At worst it is a stupidity or a trick. Ordinarily what is a good "natural" boundary for one country is a very poor one for the neighboring country. Nor do the "geographic" qualities of a boundary have anything to do with its political morals.

Political geography as a very modest field may be integrated into the general position of this article in terms of the study of the political landscape. It would then include three main sets of facts: the administrative centres, the boundaries, and the defensive lines and positions. The administrative centre yields a special type of urban study, which may be carried out "phylogenetically" as well as morphologically. Vaughan Cornish wrote in 1923 *The Great Capitals,* in which he has made a broad examination of the sites of capital cities with reference to the political area which they serve. At the hand of wide documentation he concludes with spirit that there is a tendency for the capitals to become fixed in the most successful "march" of the nation, strongholds on an exposed front. The volume is an excellent contribution to our knowledge of the sites and transfers of capitals in many countries.[89]

The characteristics of political boundaries have been presented by Curzon's Romanes lecture of 1907: *Frontiers,* Holdich, *Political Frontiers and Boundaries in Europe* (1916) and Fawcett: *Frontiers* (1918).[90] One

[89] Brunhes and Vallaux, *Géographie de l'histoire* (Chap. ix deals with the capital).

[90] See also Brunhes and Vallaux, Chap. viii.

of the most important elements in military strategy is the proper knowledge and utilization of the terrain. Strategic geography is followed therefore particularly by military experts. The late war was analyzed as to its strategic stakes and moves however by a number of academic geographers, most notably by D. W. Johnson, *Battle Fields of the World War* and by a numerous series of war-time articles in the *Geographische Zeitschrift.*

The World War resulted in a veritable flood of politico-geographical literature, concerned, both before and after the fact, with the treaty settlements and areal problems of the future. Naumann, *Mitteleuropa,* Mackinder, *Democratic Ideals and Reality,* Fairgrieve, *Geography and World Power,* Bowman, *The New World,* W. Vogel, *Das neue Europa,* and Damangeon, *Le Declin de l'Europe,* are more or less objective summaries and programs of note. A common type of difficulty in such studies is well shown by two political geographies of Alsace-Lorraine, *La France de l'Est* (1917) by Vidal de la Blache and *Die Oberrheinlande* (1925) by Metz. Both are by able geographers who know the area well and come to equally sincere, but diametrically opposite conclusions. Illustrations of this sort might be cited almost without end. A solution would be the procedure of the French critic Hennequin, who declared at the outset, for the warning of the reader, his likes and prejudices.

As developed by Ratzel's *Politische Geographie* and Brunhes and Vallaux's *Géographie de l'Histoire,*[91] there remains a field of inquiry which is beyond the geographic orientation proposed, yet does not fall clearly within the study of government. This is the study of the material bases of power of the state, its control of essential

[91] Not a historical geography as developed in this paper, but a general political geography, of especially high merit in Chapters vii to x. The second part is a "geography of the contemporary combats," in which emotional strain is rather strongly apparent.

resources for peace and war, of defensible lines, of access to world highways, especially the sea, and of room for its people. This view of the state, as spatially conditioned, was developed especially by the Swedish political scientist and geographer, R. Kjellén, under the thesis of the state as an organic form, a symbiosis analogous to a forest. This political expression of area has been the object of a school, headed since Kjellén's death by Haushofer of Munich. The study is called "geopolitics," still groping somewhat after method, but possibly to be considered as the full regional expression of the political landscape, since it is essentially regional. The principal medium of publication is the *Zeitschrift für Geopolitik*.[92]

In France, the internal movement for administrative decentralization is expressed by "regionalism," a proposed reorganization of administrative areas so as to take better account of present economic bonds and to revive the cultural identities of the provincial regions.[93] A similar movement has been instituted in Great Britain and apparently has been realized in considerable measure in the new administrative units of Soviet Russia.

THE GEOGRAPHIC METHOD

The distinctive materials with which geography is concerned have been presented as the forms of the landscape. The tools geography has in common in part with other sciences of observation. Above all, the geographer must know how to make observations in the field. This is the first requisite of his training, that he be competent to go out and collect and classify the things he sees in the

[92] The most recent major contribution from this group: Maull, O., *Politische Geographie*, 1925 is subjected to a searching critique by Schlüter, "Ein neves System der politischen Geographie," *Geog. Anz.*, 1926, pp. 62-66, in which the geographic limitations of the concept of the state as an organism are well stated.

[93] Brunhes and Vallaux, pp. 406-423; Charles-Brun, *Le Régionalisme*, 1911; Maignan, *Régionalisme*, 1920.

area. It is not simply a question of taking field notes at interesting points, but of comprehending the areal totality as to form and structure. In consequence, he records his immediate observations largely cartographically. The map is the distinctive symbol of geographic science, the chorologic expression *per se*. Although the claim has been rejected that all things that may be shown in terms of areal distribution, that is by a map, are the province of the geographer, he alone is held responsible for the mastery of this medium of presentation.[94] Such map correlation of data does not yet, however, supply the full explanation as to their connection and origin.

There is a certain causal evidence that is directly to be secured from this chorologic method. The agreement in distribution of two kinds of phenomena becomes more and more conclusive as to causal connection, the greater the number of cases in which it is observed. If the distribution of a certain soil corresponds to the extent of a climatic region, evidence to the contrary being lacking, we infer that the soil is developed under that climatic condition. This is in a sense a substitute method for the experimental procedure of the laboratory sciences and is a more or less complete enumeration of a category of phenomena through distributional limits.

We use largely also the historical method. In order to understand how a city has attained importance, how a certain type of economy came to characterize a landscape, the historic emergence of the condition must be known. As to causation this much is clear: Sequences may be established, present forms may be derived from past forms. Geography in all its branches has become genetic and therefore historical. Ours is the task of tracing the transformations of the landscape, including the vary-

[94] The leading work on the whole field of cartography is Eckert, *Die Kartenwissenschaft*, 2 vols., 1921–1925.

ing fortunes of man as expressed in the area. By direct observation we can use clues in the present landscape to reconstruct the past. We also employ indirect observation by the use of maps and records of past times which we interpret in the light of our direct knowledge of area to reconstruct areal sequences.

The elaboration of this discipline by the increasing perfection of method and accumulation of observations is our task. Our contribution to the social sciences is to be sought in a more and more dependable knowledge of the cultural areas. A more accurate inventory of the means that man has at his disposal in the regions of the world and of the manner in which he conserves or wastes this heritage will be asked of us by the crowding generations of the future. But in the end, we are geographers because we are concerned with a section of reality that is of continuing interest and because in this field we can determine the approximation of the idea to the reality.

NOTE.—Some readers may feel surprised that in a book on *Recent Developments in the Social Sciences,* the chapter on "Cultural Geography" does not represent the position of those who believe that geography should be exclusively a study of the effects upon society of the geographic environment. But the position stated in the second paragraph of page 173 and in the quotation from O. Schlüter on page 187 seems logically sound. The same position was taken by the editor as early as 1908 in the *American Journal of Sociology,* page 388 and following, in an article entitled "Sociology, Psychology, Geography."

CHAPTER V

RECENT DEVELOPMENTS IN ECONOMICS

BY JOHN M. CLARK, PH.D.

Professor of Economics, Columbia University

INTRODUCTION

IT WOULD be impossible, within the scope of this essay, to give an exhaustive catalogue of recent contributions to economics, and no such catalogue is attempted. The purpose is to outline significant trends and to estimate their effect in the long process of making economics a completer and more scientific body of thought. This is done frankly from an American standpoint, and thus American and English contributions occupy the foreground. Even with this limitation of focus and perspective, the landscape is a crowded one, and in this picture some detail has been sacrificed in order to bring out general features.

The course of change or progress in things human has been pictured under many figures, all having some suggestive truth about them. The process can be likened to an ascending or broadening spiral, to a river, to an inchworm, to the growth of a tree or to the frog climbing out of the well, in the conundrum we learned as children. It is like a spiral in that, though it returns upon itself it does not return exactly, but while it is completing a cycle in terms of some one pair of characteristics or dimensions, it is moving on or darting off on a tangent in terms of some other characteristic or dimension.

In terms of individualism as against paternalism we seem to be completing a cycle, but our present paternalism is democratic rather than absolutistic, and in terms of

the scientific point of view we are moving rapidly into wholly unexplored territory. The Hegelian process of thesis and antithesis offers a suggestive formula for these mental and social reactions, though it is not clear that a synthesis is ever arrived at before some new conflict occupies the centre of the stage.

Progress is like a river in that, while there is always some water on both sides of the river-bed, the depth of channel swings from side to side. It is like an inchworm because it holds onto its present footing with its conservative hind feet while its progressive front feet are groping here and there for some now hold. The hind feet never let go until the front feet are firmly planted, and as soon as the hind feet have a firm hold in the new spot the front feet let go and begin their groping, and both are necessary to the animal's system of locomotion. Even so do the conservative and radical lobes of the social mind. And progress is like a tree in that after all it does not change its locus, but sends its roots deeper into the past and into the knowledge of the physical universe, as it sends its trunk higher and puts out its thousands of branches and leaves. And, finally, it is like the frog climbing out of the well in that it does not hold all it gains (*malgré* the inchworm) but is continually slipping back or finding the ground give way beneath it.

THE EXPANSION OF ECONOMIC STUDY

In purely quantitative terms, economic study has been expanding amazingly in the past twenty-five or fifty years. When the present elder statesmen began their study, economics in this country was still commonly a branch of "mental and moral philosophy," in the very practical sense that the same professors taught both subjects. The ambitious students of this period went to Germany for further study, modifying their training in

English utilitarianism by exposure to the German Historical School. It was this group which founded the American Economic Association in 1884 and gave a great impetus to American economics. In this next stage the natural affiliation was between economics and history, in institutions where there was not a separate chair of economics.

Then followed a rapid expansion, marked by the growth of universities, including state universities, the establishment of sociology as a separate discipline, and the development in universities of strong departments of economics, with a common point of view, common starting-point and common discipline, but branching out into fields of special study. From this we have now progressed to a further stage, for economics in our larger institutions is no longer in charge of such a homogeneous department, but is coming to have more of the aspect of a string of loosely connected departments in which the centrifugal force of special interests has undeniably weakened the old unity. Agricultural and rural economics, domestic economy, philanthropy and social service, and business and commercial education, all have introduced a practical or vocational standpoint and purpose, or rather a series of different standpoints and purposes.

One of the most significant movements is the establishment of schools of business, of college grade, in connection with established universities and under the control, or with the active participation, of trained economists. This movement was recently signalized by the formation of the Association of Collegiate Schools of Business, and a University Journal of Business is now published. Another development is the enormous growth of research organizations and fact-finding agencies, under all varieties of auspices and with all degrees of partizanship or of independence and impartiality. In the Federal

Government, typical examples would be the Industrial Commission, the Industrial Relations Commission, The Bureau of Labor Statistics, the Federal Trade Commission, the Tariff Board and the statistical work of the Interstate Commerce Commission. Research work is carried on by Chambers of Commerce and other business organizations, by numerous bureaus in the service of labor, by university bureaus of research, by wholly independent foundations, by many banks and business concerns on their own account, and by candidates for the Ph.D. degree, laboring to fulfil their thesis requirements. As a result, the United States has been flooded with economic facts, near-facts and "campaign facts," facts in various stages of digestion and interpretation.

Here again the schools of business are of great significance both in augmenting the flow and in modifying its character. Their direct service to business gains them an entrée and unlocks doors that are closed against the government inquiry, the results of which may be used against business, or the visionary academic theorist who has in the past been typically discredited with business as being a free-trader and in favor of labor-legislation. As a result, the volume of purely economic data has most alarmingly outgrown the capacity of the human mind for absorbing and correlating it all; not to mention the assimilating of collateral developments in law and jurisprudence, in sociology, in philosophy and psychology. There are at present over twenty-three hundred persons in this country teaching economics of college grade, including business subjects of an economic character. Of these possibly as many as 2 per cent. would be classed as mainly or largely "theorists," though such an estimate necessarily ignores many young men who are yet to be heard from.

One of the recent quarterly numbers of the *American Economic Review*, taken at random, contained 33 reviews and notices of new books and 478 titles of books not reviewed, 118 items under the heading of "Documents, reports and legislation," and titles or brief notices of 462 articles in periodicals. The books were divided into 15 divisions, themselves often large and ill-defined fields, of which "general works, theory and its history" accounted for 40 reviews and titles or less than 8 per cent. of the whole. Clearly if a "general work" is to lend vision to all these fields or to borrow enlightenment from them and distil it into some form of concentrated essence, the task requires a combination of talent, versatility and endurance beyond the common run of human endowments. In short, one of the developments of economics has been to make it impossible for the writer of this essay to give an adequate picture of its development.

The field of professional economists now includes a relatively small number of "theorists," mostly of the older generation, surrounded by specialists in labor problems, corporations and trusts, public service industries, banking and financial institutions, public finance, statistics, socialism, and other branches, still animated by the interest of the scholar and with a common theoretical training. In addition to these, there are students of insurance, marketing, agricultural economics and the vocational angles of banking and transportation. Some of these are competent to treat their subjects both from the standpoint of old-fashioned social science and from that of vocational training; others attempt this combination and still more go wholly over to the vocational camp. Other men with economic training teach accounting, where their economic background is likely to lead some of them, at least, to become innovators. In general, however, their affiliation with commercial accountants is prob-

ably stronger than their association with the guild of economists.

These are all teachers. But the guild includes government statisticians, economists and investigators, some members of regulatory commissions, workers for independent research organizations and economists employed by banks and private industries, either in industrial or commercial research, in personnel work, as arbitrators of labor disputes or in other capacities. A Doctor of Philosophy from one great university may, on behalf of the Federal Trade Commission, match his wits and his grasp of facts and principles against a Doctor of Philosophy from another great university, employed by a large corporation, either in the hearings of the commission or in the sessions of the Economic Association. A railroad's accounts, kept on a system installed by a professor from the University of Michigan, or its statistics, supervised by a graduate of the University of Wisconsin, may in the natural course of events be used against the road by a former professor turned valuation expert, or by an economist in the employ of the railroad brotherhoods. In other words, the guild of economists as a whole is no longer characterized by academic isolation.

THE CHARACTER OF ECONOMIC SCIENCE

Where does one find the economics of a given age or of a given people? In a very real sense one finds it in the offices, on the streets, in union halls, in acts of legislatures and decisions of courts quite as truly as in college classrooms and text-books. This, of course, refers to economic ideas, economic assumptions or economic judgments and valuations, not to organized economic science in the strict sense. However, since economics as an art existed before it made pretensions to the character of science, these elements are not to be ignored, especially as there is con-

siderable doubt and disagreement as to what the distinctive quality of economic science is, and the twentieth century has seen a decided shift of view in that regard.

John Stuart Mill said that it is only by virtue of competition that economics can be a science at all, and in the same breath remarked that competition never works unmodified by other forces, such as custom. Custom, apparently, was not a subject for scientific study, at least by the economist. Clearly, Mill is talking of an abstract or deductive science: one that uses the scientific imagination to isolate certain forces or tendencies which are not found isolated in real life, and reduce their results to definite and accurate statements, carefully selecting such forces or tendencies as can be shown to behave in some strictly definable fashion, preferably to tend toward a level of equilibrium with opposing forces or tendencies. Later, in the Austrian Economics, one of these sorts of equilibrium—the equilibrium of opposing motives within the individual himself—was invested with a certain degree of moral worth by virtue of which price became, qualifiedly and for some purposes, a measure of welfare.

As over against this economics of equilibria, or static economics, the Historical School had already set up the ideal of laws of a sequence of social development, from stage to stage, with the result that economic principles would, in one sense, change with changing institutions; and the system of economic policy best adapted to one stage of development might not be best adapted to a later stage. In the economics of this group national unities and international rivalries play an important part—just the sort of thing about which Mill would say that it is impossible to be scientific at all.

Indeed, the results of this German historical movement have been disappointing, from the standpoint of establishing scientific laws of social evolution. It made

its mark, but did not deflect the main current of the English utilitarian tradition or that of its offspring, the "Austrian" marginal economics (which really had independent birth in England, Austria and the United States, and definite foreshadowings in Germany). This held the centre of the stage throughout the last quarter of the nineteenth century, most of the time without serious opposition.

Of late, however, a veritable clamor of voices has arisen calling upon economics to be this or that and to cease being this or that, until it seems almost that the greater part of theoretic writing is methodological analysis of economics rather than economic analysis of the world we live in.

Economics must be a genetic, evolutionary, Darwinian science, tracing laws of cumulative change in human institutions. Economics must become mathematical in language as it already is in the framework of its thought. Economics must cease to assume that price measures welfare and must merely study prices as such. Economics must cease to assume that price measures welfare and must find some independent basis for welfare judgments. Economics must drop all its older theories as not being realistic and must observe facts, hoping ultimately to build an inductive theory on a sounder foundation. Economics must search psychology for a truer basis in knowledge of human nature. Economics must build its own psychology under a concession from the behaviorists, since all psychology is the study of patterns of behavior, and the economic patterns are something with which the psychologist is not nearly so familiar as the economist. And so forth.

All in all, it is a bewildering clamor, yet it shows certain general tendencies. So far as economics is limited by certain hypotheses or deals with a strictly selected

range of data, it must keep strictly and rigidly inside its bounds and not confuse the issue by stepping out whenever it happens to feel like it and so conveying the impression to suggestible readers that it is covering the whole field and telling the whole truth. So far as economics aspires to be more than a study of static hypotheses or of the relation of money values to each other, it must come into closer touch with facts and embrace broader ranges of data than "orthodox" economics has hitherto done. It must establish touch with these data, either by becoming inductive, or by much verification of results, or by taking over the accredited results of specialists in other fields, notably psychology, anthropology, jurisprudence and history. Thus the whole modern movement may be interpreted as a demand for procedure which appears more adequately scientific, with emphasis according to the bent of each individual critic.

From another standpoint, however, these demands fall into two parts, hopelessly at war with each other, expressing two phases of scientific procedure which cannot both be satisfied in the social sciences—certainly not in our present stage of knowledge. One is the demand for accuracy; demonstrable, verifiable, quantitative accuracy, for economics has long been thought of as essentially a quantitative science. The other is the requirement that a scientific hypothesis shall take account of all the relevant facts; including, in the social sciences, the facts of endless cumulative change in institutions and in human nature itself, and including our developing morals and standards of welfare, which are themselves both causes and effects of our methods of economic production and distribution.

This destroys the "uniformity of nature," in its human and social forms, and thus makes the usual methods of exact quantitative science impossible. There may be

an underlying uniformity in the behavior of animal cells, or of their chemical constituents, but our researches as economists can never probe far enough to reach it. For us, there is at best a tentative, partial stability but no absolute uniformity. Exact statements of what has happened in the past will not yield exact general laws of what must happen always, for the past will not repeat itself exactly. Some of the significant facts will always be different, and hence any exact laws must needs be incomplete. They cannot satisfy the second requirement of science; that it take account of all the relevant facts.

Furthermore, these demands for changes in our scientific procedure are not all to be interpreted solely in terms of the intellectual striving after scientific perfection. They have a more or less conscious bearing on the issues of the age and the needs of humanity. There is a fairly general consensus that nineteenth century theoretical economics was biased in favor of individualism, consciously or unconsciously, by statement, implication or emphasis. The modern reaction typically displays the opposite bias, while some attempt to withdraw from all statements that could contain any bias whatever. But positively or negatively, the question of practical bias plays a part in moulding economic theories, even those which are shaped by the attempt to avoid it.

The first school of "Economists," the Physiocrats, believed in a divinely appointed order of "natural liberty." Nineteenth century utilitarianism, from Bentham on, undertook to judge institutions by their results, in a scientific spirit, but their study was colored by unconscious prepossessions. They assumed an economic man, and assumed that the things he would seek and choose were the elements of the "good life." As for the practical means of preventing some persons from getting these good things at others' expense through coercion or

exploitation, "scientific" economics as such managed to withdraw from this question, constructing its body of "principles" around a fixed institution of property (itself an abstraction), perfect economic behavior, and an abstract or ideal form of free exchange and competition.

In these abstractions so much was assumed that a skeptic might say that the conclusion of the beneficence of individualism was contained in the premises. Other facts were admitted, but their scientific status was considered doubtful, presumably because they did not lend themselves to such definite and universal laws. They remained in a sort of limbo. Thus the scientific task of judging institutions by their results was conceived and entered upon, but not fully carried out. The temper of the Victorian age was not sufficiently iconoclastic to make the mental adjustments required of one who genuinely casts overboard every faintest presumption in favor of things established. Possibly no one can really do it without leaning in the other direction.

The above picture of utilitarian economics is imperfect, as any such sweeping characterization must needs be, and especially does it fail to do justice to the many cross-currents and to the gradual growth of the objective point of view toward institutions. It would be fairer to say that the nineteenth cenury was spent in developing a realization of the problems raised by its own objective and scientific attitude, in becoming aware of more and more realms of values to which that attitude must necessarily extend and in feeling its way toward grappling with these problems. With the need of qualification well in mind, one may venture a still more sweeping generalization and say that the eighteenth century took the ultimate results of the social order for granted, consciously and devoutly. The nineteenth century took a sufficiency of underlying beneficences for granted, more than half

unconsciously. It put institutions on trial, but asked merciful questions and coached the witness on his answers. The twentieth century, in its most characteristic moods of thought, takes nothing for granted, questions everything and is altogether merciless.

THE ENVIRONMENT OF ECONOMIC THOUGHT: INDUSTRIAL CONDITIONS

Roughly we may distinguish four departments of life which play a large part in shaping economic thought: working, fighting, governing and thinking. Part of the environment of economics is economic life itself, part is military power, part is social-political organization and part is the thought of the age, both its general trend and particular ideas which may serve as tools of economic thinking. These are all interrelated, in more ways than it is possible to set down on paper, but since one cannot speak about them all at once, one must needs look at them one by one.

First comes our system of getting a living: our economic life itself. It is needless to point out that the "industrial revolution" neither began nor ended with the great textile inventions of the eighteenth century, and the invention of the steamboat and the railroad. It is still going on at an accelerating pace. If one were to make a bare list of the major changes that have taken place within the memory of youngish men, it would be surprising in its length and radical character. For example, the list would include at least the following items: massed production; overhead costs; the dominance of organizations and associated or corporate personalities in all fields of business, with the resultant splitting up of the business man's function, and impersonal relations; the industrial use of science and the specialist; the increase of public service industries and the development of new

types of them; urbanization; advertising; conservation; business cycles; the development of industry into one machine with all its parts geared together and largely sensitive to control through the enormously elastic machinery of credit; rapid change, creating the imperative need of means of equally rapid adaptation to its social consequences; the cessation of the large and fairly continuous rise in real wages which dominated the nineteenth century; the growth of class divisions and group loyalties as dominant economic forces; labor legislation, including social insurance and the minimum wage; a world economy; the world war and the new mercantilism; and finally that new stage of economic interdependence which modern science and industry have, between them, brought into being. This is a formidable list, and each item is a broad generalization which would upon analysis be found to ramify almost indefinitely.

More specifically, this age has seen, in America, the holding company, "scientific management," and the Federal Reserve System, the general use of electric light and power, the telephone, the trolley, the phonograph, long-distance transmission of power, the automobile, the submarine, aeroplane, moving-picture and radio. The map of the world shows but few remaining blank spaces: the poles have succumbed; railroads traverse Africa and Siberia and penetrate China; Tibet is open and Germany and Japan have joined the ranks of the powers of machine industry.

To trace the effect of such things on economic thought would be to write the history of economics for the past third-of-a-century. Some few unmistakable effects may be set down in a brief summary.

It is only since, let us say, 1873, that the large corporation has become the typical form of organization in

general industry, instead of being chiefly confined to banks and railroads, and it was not until 1889 that New Jersey opened its doors to holding companies. During most of the succeeding period we have had a well-marked "trust problem" which has gone through several distinct stages, and has hardly paused long enough to justify an effective conjecture what laws of competitive price, if any, large corporate industry obeys.

Associated or corporate production has well-nigh abolished the independent "economic man," and made men members of complex collective personalities demanding coöperation, teamwork and loyalty, rather than personal self-interest alone. Thus economics can no longer pretend to be the science of individual self-interest. As for industrial science and the specialists who minister to it; they have not merely revolutionized production, but in so doing they have transformed the technique both of production and consumption, from a social heritage handed on by imitation and custom to a matter of intensive study and much scientific apparatus. This has largely destroyed the value of two important forms of intangible wealth: our customary standards of consumption and the workers' quasi-property in the knowledge of their craft. Both are at the mercy of new methods of production which may spring from the fertile brains of engineers hunting for the "fool-proof" machine or chemists specializing in synthetic substitutes. If Adam Smith were alive today he would think more than twice before saying unqualifiedly that the consumer is the most effective power for disciplining the producer and controlling his standards of workmanship.

Public service industries are, on the economic side, primarily natural monopolies necessitating public control of earnings and service and holding their property rights

in their business subject to such control. Other aspects of business also give rise to a public interest, and of late much attention has been given to the protection of the public health, the conservation of natural resources and the maintaining of continuous operation in industries where interruption, by strikes or otherwise, is a public calamity. Thus a series of different public interests is recognized, affecting different businesses in different degrees, and capable of furnishing ground for modifying the rights of private property, under the elastic definition of the police power enunciated by Justice Holmes. The curing of unemployment represents another interest, visibly on the way to recognition and affecting substantially all business, while the likelihood of provoking warlike entanglements constitutes a further public interest which calls loudly for effective recognition and is, to say the least, quite as vital as any of those already recognized.

Urbanization has given rise to a host of problems. Chief, perhaps, is the disease of the slum, which has forced us to a bitter recognition of the moulding force of environment. Furthermore, the city is patently an organic unit, not an arithmetic sum of separate personal entities: it requires coördination; from traffic laws to zoning ordinances. All this involves a different sort of economics from the economics of bargaining monads.

These are typical samples of the effect of changed conditions of economic life on economic thought. Space will not permit a similar development of the effects of all the changes mentioned: most of them have been hinted at, or will suggest themselves to the reader. To sum up: we have entered upon a new era of interdependence. The division of labor long ago made men depend on each other for salable commodities. The entrepreneur system makes most of them further dependent on a labor market

for the opportunity to produce. Modern integrated industry makes them dependent on their bargains with others and on the whole system of purchase and sale for things which are not ordinarily thought of as exchangeable wealth at all—for the quality of their daily activity and of the human relations it makes possible, and hence for their development as healthy beings and as citizens, for the half-realized educative effects of the factory, the shop, the automobile and the moving-picture, for standards of buying, working, housing and play: in short, for those features of the economic environment which mould the individual and govern his dealings. Moreover, we are only just discovering the effects of industry on physical health, a relationship which has always existed but which has but recently been traced and hence has only recently become an economic problem.

The system of free exchange is not designed nor calculated to care for these imponderables, yet they are largely in its hands and at its mercy for better or for worse. The obvious *quid pro quo* of a bargain is not always the most important thing about it. Because of the imponderables it becomes a thing of public import: an incident in the life of an all-embracing organism which may well be called the New Leviathan.

The Leviathan makes men and must be judged by the kind of men it makes. While it demands and requires personal qualities of the very highest order, it is far from clear that it is tending to develop these qualities by its favorite method: namely, furnishing men with more and more nearly "fool-proof" machines to work with. The habits thus developed do not train men for the larger requirements of living. For social organization is not a machine (whatever we may choose to call our *de facto* repositories of political power) and it can never be "fool-proof."

WAR AND PEACE IN RELATION TO ECONOMICS

Adam Smith said that defense is more important than opulence and might justify national policies at variance with the system which would be most efficient on economic grounds alone. The same holds true today, with the added fact that war is now the organized effort of an entire nation, supported by all its economic resources, so that the range of interference which might be argued for on grounds of preparedness is vastly increased. Especially is this true since nowadays the process of turning out munitions must begin with making a machine to make the machines to make the shells, fuses, rifles, aeroplanes, or what-not.

Whatever may be the outcome of the economic delirium through which Europe has recently passed, the distrust and fear engendered will make peoples less willing to depend on international trade for vital necessities. But all the while the New Leviathan demands its balanced ration of coal, including coking coal, iron, petroleum, and rubber, as well as foodstuffs for the people and many other things; and the patriotisms of little nationalities of the pre-Leviathan days have resulted in carving Europe into fragments which cannot possibly find within their borders the quotas of supplies which they need. This dilemma, and the equally baffling question of reparations, will absorb much of the energy available for economic study in Europe for some time to come, the only tolerable outcome being one that will permit the mutual coöperation of unrestricted intercourse, while this in turn depends on some degree of confidence in the peaceful intentions of the participants toward each other.

While the war itself engendered a great deal of collectivistic control, one effect of the new mercantilism which has succeeded it is to give renewed validity to the old-fashioned economics which expounds the laws of natural

harmony. Many of the worst evils at present come from nationalistic interference with the course of free exchange. And whatever the faults of free exchange, they can hardly equal those of war-threatened, fear-ridden nationalism, especially where nations are too small to be self-sustaining under the requirements set up by the New Leviathan.

Another effect of the war has been to prove that the energies of a nation are more elastic than economists have frequently supposed, although the attempts to tap the reserves of energy were often terribly wasteful. Another effect is to make it well-nigh impossible for an economist to think in the abstract or to describe things without reference to the needs of the world or to the task of controlling or improving its conditions. This might be lamented if it involved the loss of an impartial scientific point of view previously maintained. The fact is, however, that it acts chiefly to bring out into the open pragmatic bearings which were formerly implicit and perhaps only half-realized. The classifications of abstract economics never express all possible likenesses and differences; they are inevitably selective, and the selection cannot in the nature of the case be governed by an abstract search for truth, for this cannot tell what aspects of the truth to emphasize and what to ignore. Thus the more detached the description purports to be, the more unscientific it is, because the more is the inevitable pragmatic bias of its selective emphasis cloaked and disguised.

Moreover, the keen desire to use economic study for purposes of control has led away from sterile classifications and toward the organized description of things in terms of their actual behavior; at the same time opening up masses of data, such as the cost data used in fixing prices. Furthermore, the sense of the nearness of subversive changes has enforced a realization of the rela-

tivity of institutions. Thus in both these ways the war has furthered the characteristically scientific point of view and procedure. Thus, while untold harm was done when learning was commandeered to curse Israel and bless Moab, there were compensations, and in this country, at least, the war has probably done more to help than to hinder the growth of the scientific point of view among economic scholars.

LEGAL-POLITICAL CONDITIONS

The chief factor conditioning economic thought from this side is probably the fact that institutions of property and contract are visibly evolving. Next to this is the breakdown of absolutism and the resulting fact that democracy appears to be inevitable, whatever its demerits. The growth of labor parties is a phase of this. Furthermore, legal and political issues are so prevailingly economic that it is coming to be harder and harder for economics to "take for granted" the character of government and legal rights, as a matter alien to its province. And the visible evolution of these rights has helped to reveal the meaning of the fact that private property, for example, is not one thing, but a "bundle of rights and privileges" of very varying content, and has helped to promote a transition from what Dewey calls the "wholesale" to the "retail" attitude toward the elements that make up this bundle, in their economic aspect.

To the extent that government controls economic processes, the result is to split up economic study and to make it seem somewhat uncertain whether the rulings of government have now become the economic law which the economist must study, or whether he can find an independent economic law which holds good in spite of these rulings. In the latter case he may often seem to be searching for hypothetical principles rather than examin-

ing actual facts, so that realism urges him to study the law imposed by government. That, however, makes of him a codifier of statutes and decisions rather than an economist, and fails to make the contribution to the guidance of policy which may fairly be expected from an economic specialist.

It is clear that in this field there is need for something more than descriptive studies, which are not alone sufficient to reveal whether or not an existing policy of government is "violating economic law," and to show in what the violation consists. "Economic law" in this sense is neither the unchecked force of business self-interest (which creates the abuses requiring regulation) nor the unchecked will of government. It consists of certain limiting conditions resulting chiefly from the inherent character of business and the exercise of that degree of freedom which government will not or cannot extinguish. These conditions determine the results of a given policy and whether it can succeed or not. In this sense the ideal of economics is still "a government of laws and not of men."

This ideal, however, is becoming more difficult to keep in sight. Especially is this true in the case of the Federal Reserve System. For in banking the laws of free competition worked havoc, largely because competitors did not stand or fall alone, but had the imponderable joint assets of the business organism at their mercy. The rigid percentage limit on the ratio of reserves to deposits, which prevailed under the National Bank Act, was better than utter chaos; but the reserves were useless at precisely the time they were needed, unless the ratio could then be suspended. Thus personal discretion was required: the logic of the situation appeared to demand a "government of men and not of laws," and the Federal Reserve Board now has power to exercise its personal discretion within very wide and elastic limits.

Students of banking have recently endeavored to discover some objective rule of action sufficiently definite to introduce law into this "government of men," and sufficiently discriminating to indicate the right course of action at the right time. Professor O. M. W. Sprague has proposed raising discount rates when statistical indices show that the peak of physical production has been reached. Most students of the question will probably agree with Professor T. S. Adams that no formula can take the place of discretion and judgment.[1] The attempt is a trifle like trying to find the chemical formula for one of the higher forms of life.

The very fact that such a policy can be seriously proposed witnesses to a great advance in our indices of business conditions. A few years ago an index number of physical production would not have been thought of as a guide to policies of control. Now even the less formal proposals for alleviating the business cycle contemplate a quick and sure diagnosis of the current stage of the cycle, by means of organized statistical information. Not that we already have all the information needed, but we appear to be within sight of that goal if existing researches are perfected, supplemented and speeded up.

The changing character of political organization and activity has one other very fundamental effect on economic thought: it furnishes the chief standard of comparison by which to judge the efficiency of private enterprise. Adam Smith's theory of the efficiency of private enterprise is a two-sided affair, being largely a comparison with the restrictions of mercantilism and the genial inappropriateness of the political system of the time. This system made positions of public trust the perquisites of

[1] Professor T. S. Adams discusses the proposals of Sprague, A. C. Miller and Kemmerer, in "Business Cycles and Unemployment," *National Bureau of Economic Research*, 1923, pp. 62–71.

private property, and was none too genial in its farmed-out prisons and its indiscriminate capital punishment.

Every advance in the direction of making government an affair of competent specialists, genuinely serving a democratically-determined public good, alters the base-line of the comparison and diminishes the *prima facie* force of the arguments for non-interference. In that respect most people's expectations of democracy at the opening of the twentieth century were unduly optimistic; now they are probably unduly pessimistic, although the war and the new mercantilism have between them pushed the world a long way back toward the condition of a hundred and fifty years ago.

THE HUMAN MIND IN THE TWENTIETH CENTURY

One of the dominant intellectual influences of today is the spread of the mechanistic view of the universe. It has been said that the character of economics as a science was formed before the world knew what real science was, and that since that time the other sciences have become really scientific. To the extent that this last is true, the effect, reflected back upon economics, is being felt in the present generation more strongly than ever before.

Among the particular things borrowed from the scientific point of view is the demand for verification of every assumption in the light of all relevant facts. Introspection is dethroned as a test of truth and observation becomes the highest or the sole criterion. Other contributions are the idea of evolution as applied to social institutions, the determination of the individual by his environment (made more convincing by the development of statistics), the mutability of most human traits, and the resultant search for the principles of the control of human nature, and for its stable biological basis. Psychology has further contributed revealing studies of differences

in mental capacity, and the Freudian diagnosis of the nervous diseases due to balked desires. These serve to cast doubt on the economist's custom of regarding all adult males as responsible agents on an equal footing, except for a few dependent insane or obvious imbeciles. Bacteriology has revealed unsuspected solidarities of interest growing out of the war against infection, and dangers that cannot be met by individualistic methods. All these make important contributions and between them they account for a revolution in point of view.

And yet, how far can economics borrow the precise methods of other sciences? It cannot make "controlled" experiments; the historical methods of sifting evidence, while necessary, are not sufficient; its deductive conclusions can never be more than approximately true of the actual world; and statistics can give only a qualified answer to a limited range of large and simple questions. In such a situation the pragmatic philosophy is a natural ally of the harassed economist and must offer much needed consolation. One recent critic of economics, after reviewing the possible methods, apparently accords first place to "reflection," a somewhat elastic method without definite rules, yet one which, somehow, "works."[2]

Another important development is the decline of dogmatic ethics and the growth of a pragmatic, social ethics, in harmony with the general scientific point of view and especially with the notion that ideas of right and wrong are social products and children of time and place. In this type of ethics the most important step in attacking a problem of conduct would be to attempt to determine the facts as to what consequences and alternatives are involved in a given decision: in other words, to do precisely the thing which, in its field of conduct, is the task of economics. Thus the boundary between economics

[2] Boucke, *Critique of Economics*, 1922, pp. 231–235, 278.

and ethics breaks down, not by economics adopting canons of dogmatic ethics but by ethics becoming scientific and non-dogmatic.[8]

A change of some importance has taken place in the notion of cause and effect. In place of a chain of causation of a mechanical sort, each link transmitting a pull to its neighbor and all pulling in one direction, we think of a system of many conditioning events and circumstances, any one of which is essential to the precise result produced. Under the old notion cause and effect were naturally thought of as equal, whereas under the new, the effect may be attributed wholly to each of a dozen or more separate causes, since the absence of any one would destroy the joint result. This makes it seem rather meaningless to classify poverty as being 30 per cent. due to drink, 25 per cent. to sickness and so on, the whole adding up to 100 per cent. of the total number of cases. True allocation might give a total sum far more than 100 per cent.!

In general, the characteristic mental tone of today is a reaction from that of the Victorian era. It is materialistic, skeptical, iconoclastic, irreverent and often undisciplined. The settled convictions of different classes as to their just dues overlap almost hopelessly and there is no authoritative standard of adjudication which will carry with it the private consciences of all. Since minorities often have power over majorities through their ability to block essential steps in our integrated industrial process, this situation is a grave one and calls for the means of working out new disciplines which will carry with them the "consent of the governed."

[8] On the other hand, see Knight, "The Ethics of Competition," *Quarterly Journal of Economics*, vol. xxxvii, pp. 579–624, August, 1923. Professor Knight indicates that this weighing of alternatives—a sort of glorified economics—is not all there is to ethics, and that it must necessarily fall back upon absolutes.

THE MARGINAL ECONOMICS

The marginal economics furnishes the point of departure for the developments which this essay is to study: the orthodoxy on which recent developments are built or from which they break away. One of its central doctrines is the theory of marginal utility, which says that in a perfect market people tend to buy and sell until the marginal utilities of any pair of goods, to every person who has some of each good, bear the same ratio to each other as the prices of the goods in the market. At this point each purchaser's private economy will be in equilibrium; the market will be in equilibrium, and demand and supply will be equal.

Marginal economics is essentially a theory of equilibrium between limiting incentives and limiting resistance, the incentives generally tending to diminish in force as they prevail, while the resistances increase. Thus an equilibrium is the natural result. And because psychic forces which are in equilibrium may be said to be equal; it follows, by a chain of reasoning which need not here be repeated, that a system of equilibrated prices affords a measure of utility and disutility, at least for each individual taken singly. As between rich and poor, one might claim that price comes as near measuring utility as the preëxisting inequality of wealth will permit.

Extensions of this same general method to the problem of interest yield a marginal productivity or a marginal time-discount theory or a combination of them. Rent having been previously explained in terms of diminishing return and marginal cost, the result is a complete marginal theory of value and distribution, whose coherent unity has assured it wide favor among scholars.

This economics (meaning the central core of deductive theory) is prevailingly static in its assumptions and always static in its problem; which is, to find a level of price,

wages or interest, as the case may be, at which the forces of demand and of supply will be in equilibrium. It assumes a static human nature, without which the theory of marginal utility would not hold true in the sense required by the part it plays in the general theory. It assumes divisibility, fluidity, free contract, a perfect market, equality of supply and demand and—for some purposes—an ideal form of competition.

Its assumptions as to rights of property and person, other than free contract, are for the most part implicit and subject to doubtful inference. Some system of property and personal security is assumed, but there is no specific grappling with the fact that the character of this system may determine the range of utilities that are effectively subject to bargain and sale. Here again we are speaking of the central framework of theory.[4] The best construction seems to be that for purposes of marginal theory the utility of a thing refers only to its appropriable and exchangeable utility, its disutility in the same way refers only to those disutilities which cannot be imposed on anyone without his consent and hence must be compensated. Other values remain for separate treatment under the "art of political economy" rather than the science, or under "applied economics."[5] Changes in institutions would alter the boundaries of the realm within which economic laws work, but would not change the character of the laws themselves. Thus marginal theory preserves a neutral attitude on such matters, while

[4] On the other hand, economists of the marginal group did not wholly ignore this problem: witness the discussion of inappropriable utilities in J. B. Clark's *Philosophy of Wealth*, 1886, and also Ely's *Property and Contract*, 1914. Earlier economists have also recognized inappropriable values and costs. See J. S. Mill, *Principles of Political Economy*, Book V, Chap. xi, and Sidgwick, *Principles of Political Economy*, Part II.

[5] For example, in Sidgwick's volume, mentioned above. The full title of Mill's book is *Principles of Political Economy, with Some of Their Applications to Social Philosophy.*

marginal economists themselves have been and are notably hospitable to projects of economic reform, involving shifts in the boundaries of private wealth and free exchange.

The dominant tone of marginal economics is optimistic, reflecting the growth of productive power, the rising wages and the spread of humanitarianism, of democratic ideals and of general enlightenment which characterized the nineteenth century. It analyzes those elements of spontaneous coöperation based on mutual self-interest, which account for the largest part (not all) of whatever good is to be found in a system of private enterprise.

The marginal productivity theory of distribution carries the claim that the conflict of the market has an element of fairness in it. Not that the result is necessarily ideally just, for it depends upon many uncontrollable conditions, including the underlying distribution of land, of inherited capital, of opportunity for education, of access to the market, of health, or of native energy and intelligence. And no one claims that these are perfectly just, or that the market works without friction. What can fairly be inferred from the marginal reasoning is that *granted justice in the underlying conditions*, the competitive market will produce a just result, so far as the use one makes of his endowments is a criterion of justice. This follows roughly the justice of the parable of the talents, which would not suit many modern equalitarians. The servant who received the one talent doubtless felt that he had a just grievance from the start.

Furthermore, this theory does not purport to describe accurately what actually happens in the market, but rather to express the natural tendency of perfect competition when acting without friction or obstruction. It argues, not that the existing system is exactly like the static picture, but

that to the extent that there is a resemblance, it is due to the forces of free competition; that if we wish the ultimate result to be just, we must see to the necessary prerequisites of a just contest, and that if we like the static picture and desire the world to resemble it more closely, the thing to do is to promote greater freedom of exchange and competition, so that the ultimate forces of supply and demand may find a more perfect and more constant equilibrium.

So much for the central theme of the economics which dominated the closing decades of the nineteenth century. To this close-knit structure were attached theories of population, of monopoly, of joint cost, and of prime and supplementary costs, but without altering the fundamental character of the whole.

The pragmatic bearing of this system is obvious. Plainly, it has a very great significance in a philosophy of industry, but what is its part in a realistic description of things as they are and of the principles governing their behavior? The static economics does not generally claim to be a completed whole, but is presented as a stepping-stone to a dynamic economics which should ultimately take account of everything the static economics leaves out. From the standpoint of a marginal economist, the task of the twentieth century should be the development of this broader economics.

The point at which controversy might arise is as to the relation of the broader economics to its more limited forerunner. The simplest notion is that new elements can be studied and their effect on the grand resultant accounted for by a sort of mechanical composition of forces, or, a system of allowances or offsets from the results of the marginal analysis. Another possibility is that the new forces may introduce changes which are not merely new quantitatively, but qualitatively, with the result that new inductions would be necessary. The effect

might conceivably be to modify or supplement the older economics, to destroy it in the process of fulfilment, or to be independent of it, operating within the realm to which its doctrines do not extend and to which they are neutral. To some extent all three things have been coming to pass. The least radical developments have been welcomed as a normal outgrowth of marginal economics, but some of the more disrupting "chemical" transformations it has not quite known how to assimilate.

A NEW ORIENTATION: THE VEBLEN SCHOOL

Since the close of the nineteenth century a great change has come over the position of marginal economics. It has not wholly lost its central place, but it has of late been the central target of a converging fire of criticism, and the port of departure for new voyages of exploration; voyages which sometimes bring home strange cargoes. Outstanding among the exponents of the newer movements are the Webbs, John A. Hobson,[6] and Veblen.

Of the three, Veblen is here chosen for such study as space permits, partly because he is an American and has had the greatest influence on American economics, partly because he stands in more need of interpretation than the others and partly for a deeper reason. While his specific contributions do not approach those of the other two, he is foremost in explicitly questioning and redefining the fundamental purposes, problems and standards of scientific adequacy which governed the marginal economics. One reviewer remarks a tendency to "make him responsible for all that is new in economics."[7] This is a natural enough exaggeration, because Veblen so thoroughly typifies many of those aspects in which twentieth

[6] Hobson's views are discussed below, under "Welfare Economics."

[7] See Walton H. Hamilton, reviewing Veblen's "Place of Science in Modern Civilization," *American Economic Review*, vol. xi, pp. 268, 271, June, 1921.

century economics contrasts most violently with that of the nineteenth.

Between the marginists and this later group of writers stands the somewhat enigmatical figure of Simon Patten, contemporary of the marginists but a member of no school. His chief characteristic is an indefatigable questioning of premises and a search for the forces governing the development of human thoughts and desires. He was also unconquerably optimistic and a strong individualist. His "Premises of Political Economy"; "Theory of Prosperity" and "Consumption of Wealth" well illustrate these characteristics. These studies do not so much attack marginal economics as run an independent course. His later work "The Reconstruction of Economic Theory" wrestles with forces which apparently would come in conflict with the marginal structure, and throws out stimulating suggestions. Patten's work lives most vividly through his influence on his students, and this influence did not take the shape of inculcating a "system."

Veblen, on the other hand, has, if not inculcated a system, at least unmistakably founded a school. His work exhibits four great formative influences; Marxian Socialism, the German Historical School, a reaction against the abstract method and optimistic trend of Marginal Economics, and a biological and anthropological background and point of view which imports into his works a flavor wholly novel in Anglo-American economics. The best picture of the methods and range of his work is to be found in a collection of essays, published in book form under the title "The Place of Science in Modern Civilization" and covering a period of twenty years, though the most significant appeared from 1898 to 1909. His most generalized economic analysis, and in many ways his best, is his "Theory of Business Enterprise" (1900), while

his other works develop many ramifications of his central ideas.

Veblen's criticism of the marginal economics is polite but unsparing. The system is animistic, hedonistic, taxonomic, teleological and tautological. It is animistic in that it has not shaken loose from the presumption that the economic universe is guided by an "unseen hand," in harmony with the purposes of man. It is teleological in that it substitutes an analysis of economic institutions in terms of the (presumed) purposes they serve rather than in terms of a mechanistic conception of cause and effect. (Veblen does not deny that conscious purpose is one of the acting causes in the case). The marginal utility theory of value is based on hedonistic psychology and falls to the ground with it, while the marginal productivity theory of distribution is a tautology. This last is a debatable point, but is not debated. It would be much nearer the truth to claim that the marginal theory of price is a tautology: it certainly becomes one when it tries to rid itself of every taint of hedonism, like some ascetic striving to free his spirit from the bonds of the body.

When Veblen calls marginal economics taxonomic, he is, of course, using a biological analogy which is not an exact parallel. He appears to mean, in part, simply that this economics is concerned with labelling things as it finds them rather than with evolutionary interpretations. More important, he appears to have in mind that marginal economics, being partly tautological and partly based on unreal abstractions, tells us nothing of how things behave, but amounts to dividing them into classes, calling some kinds of behavior static or "normal" and labelling others "disturbances" or "departures from the norm." "Normal" has an honorific connotation, and even more have such words as "utility" and "productivity." Thus the chief result is, in Veblen's view, to classify activities

into normal and beneficent, on the one hand, and abnormal and undesirable, on the other.

In this connection Veblen's own taxonomy is extremely interesting, it so exactly reverses the one he is criticising. He states, for instance, that the business man produces maximum vendibility, not maximum serviceability; and though a modicum of serviceability is incidentally necessary, the essential character of private-business-for-profit is to sacrifice serviceability to profits. Here we have a new kind of "normal," which is simply the tendency of the profit motive apart from competitive checks, where the older "normal" was the *tendency of the competitive forces, acting as checks on the motive of gain.*

This inverse normalizing method of Veblen's enables him to characterize parasitic gains as the essential nature of the institution of business, while any successful pursuit of workmanlike efficiency which may persist does so in spite of the essential nature of the institution, not because of it. Most readers will enjoy his implication without afterthought; the more analytical will appreciate the adroitness with which he reverses and uses the weapon on his adversaries, normalization (which he has himself characterized as not fully scientific) and they may be moved to speculate whether one use is not quite as legitimate as the other.

This reversal of the "orthodox" abstraction characterizes all of Veblen's work. He consistently studies the things which the static-marginal economics leaves out and, so far as humanly possible, ignores the forces it studies. He directs his attention to the human basis and social formation of desires (which has customarily been "taken for granted"), especially to the way in which uselessness becomes a source of value and ostensible means become ends in themselves, for example, money and the

"instinct of workmanship." He studies the "higgling of the market" and the tactics of buying and selling, holding that, whatever may be the relation which the gains of such tactics bear to the services they may render the community, it is not determinable nor worth while trying to formulate.[8] He studies self-generated business disturbances, with especial zeal for the discovery of forces of cumulative change, both in the business cycle and in the broader movements of underlying institutions.

Veblen has said that the purpose of the classical economics is definition and classification, governed by a bias toward discovering the essential laws of nature in such facts as suit the classifier's educated predilections as to what ought to be. Coupled with this is the search for the expedient policy.[9] In the same way Veblen's classifications are governed by a predilection toward describing business in terms of those characteristics of which waste and futility, as Veblen conceives them, are the natural results. Coupled with this is a certain reluctance to search for alternative systems which might remove these wastes, thus leaving the conservative in considerable doubt whether they are wastes at all, in the practical sense of being avoidable. And when Veblen does face the question of alternatives he takes the position that an automatic regeneration is possible by negative means, through abolishing existing "vested interests" in "absentee ownership."

However, as he cannot wholly ignore the stupendous work of constructing a substitute for the financial system, his designation of the process as automatic is of

[8] *Theory of Business Enterprise*, p. 63. Cf. *The Place of Science*, p. 303. Davenport's insistence that private acquisition is the only criterion of productiveness may be an example of the influence of this idea.

[9] "Professor Clark's Economics," *Quar. Jour. Econ.*, vol. xxii, p. 147. Reprinted in *The Place of Science*, pp. 180, 191.

doubtful meaning.[10] He apparently believes that an economic organization of society is possible in terms of technical facts and values alone, without any substitute (or any formal substitute) for the scheme of prices whereby the incommensurable human values are graded and precedence determined among them. His only recognition of this need is to put some economists (of the institutional school) on the council of his proposed soviet of technicians.

Similar is Veblen's view of the function of industrial capital, as a sort of toll-gate guarding access to our accumulated technical knowledge, and enabling the capitalist to "corner the wisdom of the ancients," which is the real productive force in the case. The issue is largely one of taxonomy or terminology; the orthodox economics classing our technical heritage as a free good, and focussing attention on the limited means to its utilization as the necessary condition of productiveness in the present situation. Both conceive substantially the same relation of cause and effect, but the terms in which they describe it convey radically different feelings towards the equities of private ownership of industrial wealth. Both ignore some things which require analysis, though in this respect Veblen's position is the more at fault, for the orthodox position means something in terms of present behavior and the present requirements of industrial efficiency, while it is hard to tell whether Veblen's does or not. Nevertheless, in raising this and similar questions, he has rendered a very real service.

More fruitful is his distinction between industrial and pecuniary employments and industrial and pecuniary capital. This is not sterile taxonomy but a vehicle for much keen descriptive analysis of facts. These are dis-

[10] See *The Engineers and the Price System*, Chaps. iv and vi, and especially p. 156.

tinctions which naturally tend to disappear or to be of no importance in static economics, but under dynamic conditions it becomes essential to distinguish capital as funds saved by ultimate investors, as loan funds furnished by credit institutions, resulting in purchasing power in the hands of business enterprises, as supply of tangible productive instruments, as ultimate supply of means to produce more such instruments, and as capitalized business income. It is important because these do not move in harmony over limited periods, and their discrepancies are the roots of much disturbance.

But Veblen's classification does not always take the shape of making finer distinctions than the orthodox economics; sometimes it lumps together things usually separated, as in his definition of sabotage, which includes all "withholding of efficiency" and covers strikes, limitation of output by labor or employer, adulteration and protective tariffs.[11] Thus sabotage acquires dignity by honorific association with well-accredited usages, ignoring some distinctions which are entitled to serious consideration. Another thing which impels Veblen to discover unity underlying differences is his genetic method of study. Development implies continuity of the thing that is developing, and a search for laws of development predisposes the searcher to the discovery of familiar things in unfamiliar forms. For example, Veblen studies the organization of Viking piracy as an early example of a "trust" and discovers a continuity between our class standards of consumption and those of a warlike and predatory aristocracy.

Thus Veblen's taxonomy ranges from a sheer tool of polemics to the necessary framework of dynamic inquiry. However, his chief scientific importance lies, not here, but in his fundamental conceptions of the prob-

[11] See *The Engineers and the Price System*, Chap. i.

lems and methods of economic science. Economics as he finds it is pre-Darwinian; it interprets life in terms of preconceived purposes rather than of impersonal causes working their effects in an endlessly changing process. Science is matter-of-fact and mechanistic, studying cause and effect impersonally. And ever in the human realm the causes of things are far from identical with their anticipated results; still more with the results which actually follow. Science is impartial as between contending causes and programs of action. Science should not study educated utilitarian behavior by implanting it in a purely fictitious primitive man, but should explain how it came to be by studying its actual historical roots and its genesis from the times of the real primitive man.

One thing, however, Veblen shows no sign of perceiving; namely, that an observed sequence of events is not identical with a relation of cause and effect and that historical observation is too limited to prove relations of cause and effect with scientific completeness. Hence Veblen's own conclusions as to cause and effect are based fundamentally on judgment or insight, rather than on scientific demonstration. And truly keen and challenging insights they are! If Veblen needs justification for taking such short cuts, it can be found in his own estimate of the failure of the German Historical School to produce theories which spring from their history. And if he is to be criticised it is for not noting that this failure is inherent in any attempt to discover relations of cause and effect in an historical sequence only, or for implying that the relations of cause and effect which are suggested by such study are the only ones worthy of scientific attention.

And even though Veblen neglects scientific procedure in proving his detailed conclusions, he is still a great apostle of scientific method. From which fact one may derive food for thought as to what goes to make up scien-

tific method in the field of economics. In Veblen's case, his contribution is in a conception of the problem, the range of data to be envisaged and the kinds of results to be looked for. Perhaps these are the most important things, and the tactics of weighing data may be governed by the character of the data that are sought and the nature of the questions asked about them. Possibly it needed someone of Veblen's temperament to teach the more conventionally-minded what economic dynamics really includes, and how it is likely to alter not merely static doctrines, but static definitions, conceptions and classifications; and to try out sample theories of evolutionary economics. It certainly needed someone of his iconoclastic humor to challenge the complacencies of nineteenth-century liberalism. His work of orientation has fulfilled itself in the studies and work of other men more adapted to plodding induction and detailed verification.

A writer's practical proposals or prophetic suggestions are either the sternest test of his scientific method, or else too difficult to be a fair test at all. Veblen suggests a modified Marxian cataclysm, or social mutation, in which capitalism will shatter itself through failure to control its own conflicting interests.[12] His soviet of technicians is presented rather as a redeeming possibility than as a definitely indicated outcome.[13] The technicians are looked to, not so much because they are so constituted as to be likely to seize the power of the state, as because they guide the actual work of industrial production and are the only class at all likely to organize it so as to eliminate the wastes and perversions of profit-making business.[14]

To sum up, whatever Veblen's faults, his accomplishment must needs command respect. He has restated

[12] See *The Engineers and the Price System*, Chaps. iv and v.
[13] *Ibid.*, Chap. vi.
[14] *Ibid.*, Chaps. ii and iii.

many elements of Marxian economics, free from its most indigestible dogmas and ratiocinations, and has made them part of the daily thought of an age which was early taught to regard Marx as utterly discredited. He has, more than any other one man, altered the course of American economic thought until the orthodoxy of yesterday is today the thing everyone is trying to overthrow, replace or modernize. He has influenced Davenport, Mitchell, Hoxie and a host of younger men. He may be taken as the largest personal impulse behind the modern critical movements; the "instinct economics," "institutional economics," "genetic economics," and the modern forms of psychological economics, though here the work of the socialists as a group must be conceded more effect than any one economist.

Veblen has also enjoyed the unusual experience of seeing the spirit of the age grow ripe to receive his views within his lifetime. The least important thing he has done is to gain a tremendous and probably temporary popular vogue through his ingenious but somewhat meretricious taxomy of waste and futility which, intentionally or no, caters to the besetting weaknesses of an age of irresponsible iconoclasm. For any intellectual sins he may have committed it would be adequate and appropriate punishment to live under a soviet system, to probe its characteristic wastes and futilities as only he could probe them, and to be forcibly silenced by the new spokesmen of edification.

VI. CRITICISM AND ADAPTATION

If criticism be progress, economics has progressed far in recent years. Many students have believed that it was necessary to destroy before rebuilding, though it was also inevitable that the old structure would not be deserted

until some constructive substitute was offered. Perhaps that is why it remains possible to kill the "economic man" anew at almost every session of the economic association. We cannot here discuss this critical movement at length. The demand for revision of method we have already touched on, and we must pass rapidly over the criticism of doctrines. Much of it bears on particular formulations and unguarded *obiter dicta* rather than on the inherent mathematical logic of static marginism. Some of it amounts to criticising statics because it is not dynamics or (more justifiably) because its terms, classifications and half-realized preconceptions, do not furnish a basis for dynamic study.

Akin to this is the charge that the theory does not meet the test of inductive verification.[15] Of the many who have made this charge, few have tested it without slighting one essential step in inductive verification: namely, the deductive step of discovering what the theory calls for under the given circumstances. Often it is merely a question of whether one does or does not give the theory the benefit of certain necessary dynamic modifications before testing it by comparison with the facts, though sometimes the critics find that this would not be adequate. Or perhaps the doctrines do not call for any specific behavior, but merely give a name to whatever behavior may be found, and the critics consider such names meaningless.[16]

Among the particular criticisms, some of Veblen's strictures have already been mentioned. The assault on

[15] *Cf.* Hollander, "Economic Theorizing and Scientific Progress," *Amer. Ec. Rev. Sup.*, March, 1916, pp. 124–139. Also H. C. Emery, "The Tariff and the Ultimate Consumer," *Amer. Ec. Rev.*, September, 1915, vol. v, pp. 534–553.

[16] See Downey, "The Futility of Marginal Utility," *Journal Pol. Ec.*, April, 1910, vol. xviii, pp. 253–268.

hedonism is almost unopposed.[17] Attack is also directed at accepting normal price as a measure of social utility, and financial proceeds (under free competition) as a measure of social product. As for the notion of measuring the shares of a joint product for which each factor is responsible, many deny that any such process is possible. Yet these critics do not seem to notice that the same process is involved in finding the utilities of complementary goods in consumption, as G. P. Watkins has shown at some length.[18] Davenport insists on the entrepreneur point of view and denies that the entrepreneur can accurately determine the separate contributions of the different factors of production; saying instead that he pays *on account of* the contributions of each factor to his proceeds, and pays about as much as he can afford.[19] This position may have some kinship to that of Hadley, who says that the social productivity of capital may justify the *institution* of interest but does not govern the *rate*.[20]

Other criticisms are directed at the habit of regarding money as making no essential difference in the character of exchange, as compared to barter, and leaving it out of sight as far as possible in the hope of avoiding confusion.[21] A further point of attack is the conception of a normal level toward which things gravitate, whereas the facts reveal a cycle in which each stage grows out of

[17] On the other hand hedonism is qualifiedly upheld by G. P. Watkins in his *Welfare as an Economic Quantity*, and Z. C. Dickinson secures results essentially in harmony with the older "laws" of human nature, but stated in the language of modern psychology. See his "Motives in Economic Life," *Harvard Economic Studies*, 1922, a book which received the David A. Wells prize.

[18] *Welfare as an Economic Quantity*, cited above.

[19] *Economics of Enterprise*, especially pp. 48–51.

[20] *Economics*, 1896, especially pp. 268–269.

[21] See J. S. Mill, *Principles of Political Economy*, Book III, Chap. vii, p. 3. Akin to this is the Austrian habit of discussing "value" before "money." The opposite position is taken by W. C. Mitchell, "The Rôle of Money in Economic Theory," *Amer. Ec. Rev. Sup.*, March, 1916, pp. 140–161.

the preceding stage and no force of gravity appears until the limit of oscillation is reached.[22] All in all, though much of the criticism falls wide of the mark, in such a hail of shots some strike home, whether in vital spots or not is a matter of dispute.

Perhaps the net effect may be summarized in this wise. The logical structure of marginal theory, as a system based on abstract premises, possesses essential integrity, especially if its laws are stated as tendencies toward a given limit, and interpreted with common sense as to the degree of accuracy which it is reasonable to expect in view of the character of the quantities dealt with. These laws cannot be taken as expressing absolute levels which must prevail with ironclad exactness. It is very likely that the marginal system has never received a form of expression which was proof against all misconception or criticism. Yet it bears sufficient resemblance to the facts to give it an important measure of truth, as an expression of certain forces making for economic stability. Any scientific description of our existing industrialism must contain some expression of these forces, though this will be combined with an emphasis on causes and limits of oscillation, and of slow or rapid cumulative change, on conditions of markets and bargaining, on counteracting motives and conflicting values, on the conditioning framework of institutions, on values not recorded in the market, and many other things. It is in such a synthesis that the question of the truth of the criticisms of orthodoxy will ultimately be worked out, and the result will not be a discarding of the basic elements of the existing structure. However, in terms of space on the bookshelves, it will be more and more overshadowed by studies of the dynamics

[22] *Cf.* W. C. Mitchell, *Business Cycles.* More than a hint of this is contained in Hadley's statement of the effect of constant costs on the law of price. See Hadley's *Economics,* especially pp. 151–155

of the market, human nature and institutions and their evolution. Dynamics is obviously a larger and more complex field than statics.

The adaptation of orthodoxy to these attacks is interesting. Perhaps the chief reaction is to adopt an agnostic view of human motives, making marginal utility a tautology or abandoning the phrase, now empty of meaning.[23] Recent works pay more attention to institutional history and to such things as credit institutions and the business cycle. On the whole, however, orthodoxy has gone its way, waiting for the critical movement to justify itself by positive works, and perhaps somewhat disinclined, through preoccupation with theory of the system-making sort, to recognize contributions of a novel color as belonging in the field of economic theory at all.

Schumpeter, perhaps the ablest of the later Austrians, holds that only in pure statics can economics be an exact science. But he also rests the validity of economics on a pragmatic basis, and states that even contradictory hypotheses may both "work," each in its appropriate problems.[24]

[23] The leading examples are Davenport and Fetter. Fetter, however, retains the essential framework of Austrian economics, as Whitaker maintains in his review of Fetter's "Principles," *Pol. Sci. Quar.*, vol. xxxi, pp. 430, 431–432, 442–444. Fetter's economic man remains moderately "rational." (*Cf.* his *Economic Principles*, pp. 15, 29, 109) and it is not the irrational features of his conduct which hold the centre of the stage. Even the time-discount theory of interest does not require people to set an irrational discount on future *psychic experiences*, and a discount on future *money income* is the most rational thing in the world for a person who values future *experiences* as highly as if they were present. It all depends on how well present and future wants are already provided for; and present undernourishment may be the worst provision for the future a worker can make. Dickinson (*Motives in Economic Life*) is another writer who adopts a new psychological terminology without revolutionizing the theory of value which that terminology is used to convey.

[24] Joseph Schumpeter, *Das Wesen und Hauptinhalt der Theoretischen Nationalökonomie.*

In the body of deductive theory some improvements have been made, especially in the classification of factors of production and the formulation of the laws of return. J. B. Clark merged land and capital for purposes of studying their value to the user, though calling attention to the permanence of land as setting it apart from other capital goods.[25] Davenport has gone farther,[26] and we have reached a point at which it becomes evident that all factors are like land in that separate units have a differential value, that land is like all the rest in that its value can be reduced to a marginal contribution in the same way as the other factors and to the same extent, and that from the point of view of demand no one classification of factors is inherently right or wrong. From the employer's standpoint all factors are alike, in one sense, and they might be classified into an indefinite number.

Another advance consists in substituting a "law of proportion of factors" for the ambiguous "law of diminishing return" and the economies of large scale production for "increasing return."[27] This is a beginning of scientific definition of these laws according to the variables at work. In "constant and variable costs" we have the basis of a third variable (percentage utilization of capacity) and in "joint costs" a fourth (proportion of

[25] *Essentials of Economic Theory*, especially pp. 22, 36, 174, 177–185.

[26] *Economics of Enterprise*, pp. 162–172, 193, 372–373, 509–510. But note also p. 520, where he suddenly distinguishes all land values as capitalized gifts of nature and unearned.

[27] Davenport (*Economics of Enterprise*, Chap. xxiii) distinguishes these laws. In his formulation of the law of proportion of factors he refuses to go behind money return and money outlay to discuss the technical reasons why these behave as they do, out of an extreme desire to avoid all confusion of technical with economic or financial principles. Carver, on the other hand, has paid a great deal of attention to the technical phases of the law of proportion of factors, as has also F. M. Taylor. A complete exposition, needless to say, must describe both technical and financial aspects and analyse the relation between them.

complementary products).[28] G. P. Watkins has inserted into economic literature the engineering concept of the load-factor (ratio of average to maximum output),[29] and has shown that it applies to labor as well as to capital. Every business is subject to a variety of these forces at once, and an understanding of this fact should go far to meet the criticism recently made by an English economist-historian: namely, that it is impossible to pigeon-hole an industry as one of increasing or diminishing returns and that therefore these boxes remain empty.[30] A realization of the true character of these laws would at least divert this criticism into a new channel.

Other developments show that theory has felt the general trend toward quantitative description. F. M. Taylor some time ago presented the law of proportion of factors in a table of hypothetical figures,[31] but modern students tend to be satisfied only with quantities which are observed, not hypothetical. Thus we have had quantitative studies of the economies of size and combination,[32] of demand and supply schedules and of the volume of output produced at different levels of cost in various industries. These last will be discussed later in connection with the subject of quantitative economics.

All this is in line with a general tendency to define

[28] This concept of joint cost is brought out by Edgeworth in his "Contributions to the Theory of Railroad Rates," *Econ. Jour.*, vol. xxi, pp. 346–370, 551–571; vol. xxii, pp. 198–218; vol. xxiii, pp. 206–226; September–December, 1911; June, 1912; June, 1913. *Cf.* also Dewsnup, "Railway Rate Theory and Practice," *Pol. Sci. Quar.*, vol. xxx, pp. 476–509, September, 1915.

[29] Watkins, "A Third Factor in the Variation of Productivity," *Amer. Econ. Rev.*, vol. v, pp. 753–786, December, 1915.

[30] Clapham, "Of Empty Economic Boxes," *Econ. Jour.*, September, 1922, pp. 305 ff. This elicited a reply from A. C. Pigou; to which Clapham rejoined, *Econ. Jour.*, December, 1922, pp. 458 ff.

[31] *Principles of Economics*, 2nd Ed., Chaps. ix–xi.

[32] See especially Dewing, "The Law of Balanced Return," *Amer. Econ. Rev.*, vol. vii, p. 755; and "A Statistical Study of the Success of Consolidations," *Quar. Jour. Econ.*, November, 1921, vol. xxxvi, pp. 84–101.

things in terms of observable behavior, or in terms capable of easy and direct translation into observable behavior, rather than in terms of abstractions whose precise behavioristic meaning may be obscure. The general movement toward descriptive and quantitative economics will receive attention in a later section. Suffice it here to indicate points at which this movement has made contacts with "orthodox theory" and has affected its course.

Perhaps the chief recent contribution which is a direct development of marginal economics is the work of A. C. Pigou, the very able successor of Alfred Marshall in the chair of economics at Cambridge.[88] His work is characteristically a calculus of the national dividend as an index of welfare, and his most frequent criterion is the equalizing of marginal net products. Discrepancies occur through lack of mobility, or where the social net product differs from the private, or where the supply price differs from marginal cost (in businesses of "increasing return" with increased output). In this latter case a discriminating monopoly can do better for the social welfare than competing producers can. It is characteristic of this marginal analysis to think frequently of taxes and bounties as correctives capable of being so used as to cause private incentive and social gain to coincide.

Other contributions have been made by the mathematical economists, taking advantage of the exactness of mathematical expression and the capacity of algebra to express complex relationships of many elements to each other. The name of Pareto attests the Italian genius for this type of study, even as the name Pantaleoni attests a similar aptitude for "pure" marginal analysis in a less mathematical form. Gustav Cassel in his "Theory of Social Economy" has expressed the laws of value and dis-

[88] A. C. Pigou, *Wealth and Welfare*, 1912; also *Economics of Welfare*, 1920.

tribution in the form of abstract algebraic functions, emphasizing the interdependence of all the factors concerned. Whatever the form, the marginal logic is, in essence, mathematical. That the hypothetical method is not yet ready for abandonment is attested by F. H. Knight's "Risk, Uncertainty, and Profit," which contains an excellent brief resumé of the framework of pure theory, with some improvements of statement, and a subtle analysis of the types of risk which do, and those which do not, give rise to profits, and of the character of the process of judgment whereby the more unstandardized risks are estimated. R. T. Bye and O. F. Boucke have recently produced general treatises restating the outlines of economic theory, making improvements at certain points without making radical departures or fundamental alterations.

RECENT SCHOOLS AND TENDENCIES

GENERAL CHARACTERISTICS

Recent economics is not so much an affair of well-marked schools as of many overlapping tendencies, and especially of a variety of methods and ranges of data, which are coming to be the common property of economists in general, and any one of which may be taken up and used by any economist, according to the needs of the problem with which he may find himself confronted. The day of disputatious sects, fighting to the last ditch over dogmas and verbal formulations, is waning, and with a recognition that these things over which we fought represent methods of approach to the truth rather than ultimate and eternal verities in themselves, the term "eclectic" is losing some of its connotation of mild disparagement. The eclectic in the undesirable sense is the one who hyphenates the dogmas of opposite abstractions without attempting to reduce them to a common denominator, or who fills his

mind with the catchwords of different schools, with imperfect understanding of the processes, underlying them, making up a sort of mental pack of cards, which he deals out on varied occasions with uncertain appropriateness or consistency.

On the other hand, when dogmas are recognized as not merely the natural outcome of the particular methods of study followed, or ranges of facts considered, but as being in themselves only methods of approaching the whole truth, then the case changes its color. For instance, when one understands the conflict between Veblen and Neo-Classicism sufficiently to see that Veblen's dogmas of waste and the Neo-Classical dogmas of serviceability both contemplate very similar ranges of ultimate facts, and differ chiefly in what they choose to call "normal"—when one has carried his appreciation thus far, he would be foolish to ignore either range of facts or to refuse to admit both types of thing as the results of natural laws in the economic world.

Where two theories contemplate substantially the same behavior of the facts, their differences of formulation are likely to be most implacable and incapable of compromise—as when B. M. Anderson insists that value does not rest on utility but on "power in motivation," and overthrows all existing theories of value, but says power in motivation *behaves* substantially after the fashion of the familiar law of diminishing utility, with the resulting marginal equilibrium between alternative values.[84]

Now the temper of the present generation is against recognizing any meaning in statements which cannot be translated into terms of some sort of behavior and so verified, and against recognizing any difference of meaning in statements which call for identical behavior. But in process of putting questions to this test, most of the

[84] See *Social Value*, pp. 108–109.

irreconcilable conflicts in the realm of abstract dogma appear to drop away and the basis is laid for a unity of a truly scientific sort. Whatever may be lost by the modern behavioristic trend of thinking—and it may be carried to extremes which sacrifice things of real worth—at least it tends to rid us of certain types of controversy which were seemingly impossible of solution or termination and which made it appear hopeless for economics to progress like other sciences. For the mathematical and experimental sciences make one step secure and then build on it, while we are constantly trying to build on stepping stones which others are trying to tear from under us. We are still in the stage of controversy over fundamentals. Nevertheless a vast amount of solid work is being done which these controversies do not seem to affect.

Perhaps the most mature and established trend in recent economics, with a name and a conscious unity, is French solidarism. Its premises, though not its name, have made their way into a great deal of recent Anglo-American economics. Its nearest of kin is "welfare economics," most prominent perhaps in England. Then there is "institutional economics," of which genetic or evolutionary or historical economics is regarded as a part, psychological economics of a non-utilitarian sort, and descriptive or statistical economics, or the economics occupied with realistic studies of the workings of market machinery or with the "institutions of the market" in a direct and immediate sense.

All these may be made vehicles of progress in scope and method as compared to static-marginal economics, both in including what it leaves out and in striving to become realistic rather than hypothetical. The relationship of these different elements to each other may be very imperfectly indicated by a chart, representing the realistic method and the broadening social scope by the two dimen-

sions of the figure. The line between the "descriptive" and "welfare" types of study is shadowy and hard to fit into the logical scheme. Welfare economics includes description, indeed the best sort is almost wholly descriptive, but it is description directly governed by the search for a conception of welfare or for the effects on welfare of

Scope / Method	Market or Price Economics	Social Economics	
		Descriptive Emphasis	Emphasis on Welfare, Justice or Efficiency
Abstract.	Static value theory: also a limited range of dynamics, *e.g.*, J. B. Clark's five dynamic changes.	The "Economic man". Non-ethical forms of marginal utility. *A priori* analysis of effects of monopoly, inequality, *etc.*, *e.g.*, those of Pigou.	The "Unseen hand". "Natural rights". Ethical forms of marginal utility. Solidarism as an abstract dogma. Veblen's taxonomy.
Realistic and Inductive.	"Economic mechanics".[85] Studies of market institutions, *e.g.*, "Mitchell's Business Cycles".	Studies of human nature and its motives. Institutional economics. Genetic economics. Studies of "Economic Problems" (in part).	Studies of human nature: its needs. Welfare economics. Solidarism, as an inductive interpretation of economic relationships. Economics of public control. Economic jurisprudence.

economic conditions, whereas such a study as W. C. Mitchell's "Business Cycles" is clearly not dependent on any conception of welfare for its meaning, however much it may conduce to human welfare to understand how business cycles are produced. However, any such scheme of pigeon-holes does more harm than good unless it is used merely as a suggestion, remembering that living thought does not fit neatly within such formal enclosures.

[85] The term "Economic Mechanics" was suggested to the writer by Professor A. A. Young, of Harvard.

As for the underlying unity of the "realistic and inductive" types of study, it is interesting and significant that there is enough positive work being done on lines not wholly hackneyed, to furnish material for two books by a young writer, L. D. Edie, one of which is frankly a gathering together of the ideas of many men.[36] The scope of these books is an interesting symptom. In the first there is a great deal of psychology with chief emphasis on the most controversial topic—instincts. Next in terms of emphasis come the dynamics of markets and financial institutions. The chapter on wages includes such topics as "incentives," "bargaining power," "environment," and "the mind of the worker." The chapter on capital deals chiefly with rights of property, and that on management speaks of the mechanism of corporate management and the technique of executive direction. The work concludes with chapters on Public Control, Economic Radicalism and Economic Democracy. The things chiefly emphasized are psychology, descriptive dynamics of markets and financial mechanisms and the criticism and reform of institutions in general. In the second book the descriptive material is further developed and a more comprehensive treatment is worked out.

THE ASSUMPTIONS OF THE SOCIAL POINT OF VIEW

In terms of the social point of view two trends are in evidence; apparently divergent but not fundamentally out of harmony with each other. One is toward the avoidance of social valuations, which means keeping the analysis of prices and similar market quantities free from all implications that these market quantities furnish true measures of social values. This trend is well exemplified in H. J. Davenport's "Economics of Enterprise." The other trend is toward an analysis, not merely of market

[36] L. D. Edie, *Principles of the New Economics*, 1922, and *Economic Principles and Problems*, 1926.

phenomena, but of the social conditions underlying them, and tends to furnish a basis for social judgments which do not accept the market measures of things, but depart from it, often quite widely. Veblen's analysis affords an example of this kind of analysis which is not carried to the point of forming definite social judgments, while Hobson's "Work and Wealth" makes a positive attempt to form and apply standards of social value independent of those of the market. The two trends have this in common; both agree that if social valuations are to be made, they must not be biased at the source by any express or implied acceptance of the measures which the market affords.

A great deal of the modern social analysis is essentially a following-out of the point of view which has been given its most definite expression in the French doctrine of solidarism. This is a generalization from the many organic features of society which we have already passed in brief review, and is fortified by a study of how existing institutions came to be. It means that everyone is dependent upon everyone else in many ways which the market can never trace and measure, and that one's apparently independent contribution is really a joint product, with society as a partner in production. Thus the system of distribution under free exchange does not represent either the contributions of the parties, the ultimate results of what they do or their equitable claims. This doctrine does not aim to abolish individual rights, but it discredits the competitive arbitrament of them, and leaves an indefinite scope for policies of a mutualist color. Among the writings we have so far mentioned, those most closely akin to it are J. B. Clark's "Philosophy of Wealth" and Veblen's theory of the relation of private capital to the social heritage of knowledge.

The term solidarity was apparently first used as a

name for an economic school by Gide, in 1889, to describe the new school which was neither liberal, catholic, nor essentially socialist. In 1896 Leon Bourgeois, the Radical-Socialist leader, gave the notion a *quasi*-legal definition, holding that the rich owe a genuine debt, under a sort of *quasi*-contract, to correct the anomalies of the economic system by which they have benefited.[37] This debt may be discharged voluntarily, or the state may collect it in the form of taxes.

In application, this supports the policy of a social minimum, the conception of charity as mere justice and of wealth as a trust in a peculiarly binding sense, an emphasis on professional associations as trustees of the moral obligations involved (developed especially by Durkheim) and the development of voluntary coöperative institutions. Both syndicalism and state socialism employ the principles, and it has lent a sense of unity and of the supporting "pin-point of the truth" to the growing numbers who felt the inadequacy of individualism but distrusted also the dogmas of the existing socialisms and required something more inclusive which might enable them to work together, up to a certain point. However, solidarity is far from supreme in France, and French individualistic economists are probably more extreme and outspoken than those of any other great country.

WELFARE ECONOMICS

Akin to solidarism is "welfare economics," of which probably the best single expression is John A. Hobson's "Work and Wealth." This extremely prolific writer has been esteemed not unqualifiedly sound by the marginal economists, largely because of his heterodox belief in general overproduction and underconsumption in rela-

[37] Leon Bourgeois, "La Solidarite," 1897. Published as articles in the *Nouvelle Revue* in the previous year.

tion to industrial crises.[88] He claimed that resources are wasted by being invested in plants for whose additional output there was no effective demand, so that they did not increase the nation's productive power (already limited by demand) and so were merely "forms of capital" without the substance, since whatever they might produce was subtracted from the productive power of plants already in existence.

This general notion is open to attack at certain points, especially perhaps with reference to cases where some of the existing plants (presumably the least efficient) are made obsolete by the building of new. On this specific point Pigou replies: "It is evident that the losses incurred by the owners of the old machinery are caused solely by the fall in prices, and must, therefore, be smaller than the corresponding gain to consumer's surplus. Hence aggregate advantage grows with every addition to the resources invested in new machinery, up to the point at which the net product at the margin, conceived without reference to the losses of the said owners, is equal to the net product at the margin of resources in other uses."[89]

Pigou's reply is convincing, accepting the static assumptions as to the character of competition, assuming that a lower price for the same quality of goods is the only thing which can cause customers to shift from one producer to another, and ignoring some of the corollaries of "constant costs." In the particular case Pigou has in mind he is very likely in the right, *viz.*, a municipality owning a gas plant which shrinks from the introduction of an electric lighting system. Nevertheless the argument he uses would not apply to resources invested in an

[88] See Mummery and Hobson, *The Physiology of Industry*, 1889, and Hobson, *The Industrial System*, Chaps. iii and xviii, and *The Evolution of Modern Capitalism*, especially Chap. xi, Section 15; also in *Sociological Review*, July, 1911, p. 197.

[89] Pigou, *Wealth and Welfare*, p. 161.

advertising campaign to divert customers from existing producers to new plants producing goods of similar quality. And when a competitive war drives out one producer, it is not true that the consumers' gains in the long run are necessarily equal to what the bankrupt producer loses.

More typical, nowadays, is a live-and-let-live situation, neither competition nor absolute monopoly, in which a new producer would be allowed to take some business which other concerns have capacity to handle, rather than cut prices to the bone in the effort to work at full capacity. Here there is considerable room for new facilities which represent no real addition to the country's productive power.

Thus Hobson's general proposition as to overinvestment appears to contain an important measure of truth, though it might not be true at all of "ideal competition" where the customers are all perfect economic men. Furthermore, the relation between investment and saving is complicated by the elasticity of the credit system so that overinvestment does not automatically prove that there has been oversaving in the ordinary sense. This same point has lately been revived in an argument in which H. G. Moulton takes exception to Carver's philosophy of thrift. Moulton's position is complementary to Hobson's, maintaining that saving might be carried so far as to reduce production by unduly limiting demand for consumable goods, and emphasizing the power of an elastic credit system to stimulate the growth of capital and to obviate some of the need for the painful kind of personal saving.

In "Work and Wealth," Hobson is studying the effects of industrialism upon human welfare, in the face of the recognized difficulty that no yardstick of welfare is ready to hand. In fact, in his concluding chapter he

demonstrates brilliantly that it is impossible for social policy, just as much as for personal conduct, to be governed by quantitative calculation of values, measured by some preëxisting yardstick. Even for measurable values this could only come to pass if there were no such thing as change. And one may add that if there were no change our previous decisions would be all the yardstick we should require, conduct would become routine and the conscious measuring of values would disappear.

However, novelty introduces creative elements to which no yardstick can, in the nature of the case, apply.[40] "Upon the canvas of time I paint myself, using all the means at my disposal to realize my ideal. . . . So far as I am justified in separating my expenditures of money from the expenditure of my time and other resources, and in regarding the design as an 'economic picture,' I can readily perceive that the unity of my artistic purpose involves and determines the expenditure of my income in definite proportions upon the various objects whose 'consumption' contributes to the design. But these proportions are not determined by a calculation of the separate values of the various items. For, strictly speaking, they have no separate value, any more than have the lines or colors in a picture. . . . The life of a society presents this same problem on a larger scale. . . . Economists will point out triumphantly the alleged fact that the last hundred pounds spent on education produces a national return exactly equal to that obtained by the last hundred pounds spent on gunboats, though his assertion remains inherently insusceptible of proof. In truth the Chancellor's mind does not work in this way. So far as his statecraft is disinterested or even allowing for every form of

[40] This general theme of creative choosing is ably treated by H. W. Stuart, a philosopher with economic training, in his essay on "The Economic Interest" in the joint volume, *Creative Intelligence*, 1917.

bias, his mind forms an ideal of social progress, of a happier or better state of things, and allots the outlay of his ten millions in an endeavor to assist in the realizing of this ideal. Now the ideal itself is not chiefly a product of quantitative calculus . . . His views as to the means of realizing this ideal can never be purely scientific, though science may here be of considerable assistance." [41] This is a strong statement of the organic and creative features of economic decisions. The chief points at issue seem to be the incalculable element of novelty, and the fact that different items in a budget or plan of social organization get their value partly from each other so that the worth of each is governed by the presence or absence of the rest, and that in turn by some inclusive value to which all are subsidiary. As Hobson also states, not all values are complementary, at least not "at the margin." Hobson is here emphasizing, perhaps too strongly, a truth which is sadly neglected, if not ignored, by the economics which adds and subtracts separate quantities of pleasure.

In the face of the difficulties presented, Hobson falls back upon the general intuition of what constitutes welfare, emphasizing those aspects concerned with one's relations to one's fellows, and so proceeds to discuss the effects of industry on welfare in a very revealing way. The results of such a study cannot dictate social policy with any absolute finality, for no one can foretell the effectiveness of a given reform, or the sacrifices involved, but it tends to make certain needs and ills vastly more effective than before as stimuli to action.

Hobson considers that the social costs of industry are frequently in excess of the marginal benefit received, especially those costs falling upon the poor and on those who are denied the opportunity for creative effort in their work. He holds that personal thrift often costs the saver

[41] Hobson, *Work and Wealth*, pp. 333–334, 336, 339.

more than the result is socially worth, and that a better distributed social income, even though smaller, could yield more welfare.

Such a study inevitably enters upon controversial ground, especially where the author passes from diagnosis to prescription, which he does in very general terms. He says that the best "social economy demands . . . the substitution of social welfare for private profit as the directing motive throughout industry. But it does not imply a completely socialistic system in which each productive process is under the direct and exclusive control of Society . . . The well-ordered society will use the energies of egoism in fruitful fields of individual activity . . . in the fine arts, in literature, in the unsettled and experimental section of each profession and each trade." Industrial competition, however, is dehumanizing.[42]

Distribution should be according to needs, modified by actual output or by the differential incentive needed to stimulate a man to work his best, and all should have some surplus available for voluntary contribution to the needs of the community, as well as enough, not only to sustain their own faculties but to develop them. This would not require any very wide discrepancies between incomes, and would require a considerable increase for the poorest-paid classes, whose wages do not cover their "costs of maintenance."

Hobson's position is typical of that of many Englishmen of a radical trend, who are not in favor of state socialism but are looking for some more voluntary reorganization of industry and change in its motivation, in the direction which Hobson calls for. Perhaps the most popular brief exposition of this philosophy of industry is R. H. Tawney's "Acquisitive Society." Adherents of this type of economics are inclined to assume some-

[42] *Work and Wealth*, p. 251.

what easily and sweepingly that, because the dominant motive of industry is profit, therefore industry is wholly devoid of the motive of service, and that the modern stockholder performs no function. These propositions must be estimated in much the same terms as Veblen's views on waste. To a society which believed industry to be wholly devoted to service, these doctrines would come as unwelcome but wholesome truths.

In testing how far they are true or how adequate they are to a full understanding of industry, the decisive question is the practicability of a plan that will elicit by more direct appeal, more spirit of service, and less perversion of service to personal ends. Public ownership would be far from certain to bring this about. Wastes and perversions occur in government which are identical in fundamental character with those of industry; selling has its counterpart in political campaigning, as Carver has pointed out,[48] and the waste of duplication in political machines is enormous, while adulteration and the handicaps of unequal command of capital have their parallels also. Moreover the efficient service which is incidentally required as a means to the end of private profit becomes a conscious end in itself, and the success of a management is largely gauged by how well and how far it diffuses this spirit through its personnel. It may be that the spirit of service in private industry, though incidental, is more effective than the same spirit would be, if enforced by governmental rather than economic means and subject to the perversions of political ambition rather than to those of financial gain. This is a question on which more light is needed than is at present available.

One serious obstacle to the supremacy of the motive of service is the present-day attitude of labor. The conviction that industry is run for profit rather than for

[48] T. N. Carver, *Essays in Social Justice*, pp. 111–125.

service, and that in giving their best to industry they will be filling the employer's pocket rather than helping the interests of consumers or of laborers as a whole—this conviction is sufficiently widespread to furnish a decided motive to withhold one's best service. In this case the belief that profit and service are antagonistic tends to make them so. This belief is not exactly new, but the modern forms of industry, sabotage and the limitation of output, and the discrediting of the " economic man," have given it new material to feed on.

THE INSTITUTIONAL POINT OF VIEW

Institutional economics is not a new thing—there is much of it in Adam Smith, Sismondi, John Stuart Mill and especially Karl Marx. The term, however, is too young to be easy of definition. It is used by a group of the younger American economists to define a point of view—one might almost make it coextensive with the scientific point of view—in economic study. It is the point of view expressed by Veblen, though of course it need not imitate wholly his bias as to the disserviceableness of private business. As a starting point in getting at the meaning of this point of view, we may say that it sets up the ideal of studying the interrelations of business and other social institutions as they are and not through the medium of any simplified abstractions such as are employed by classical, static and marginal economics. This means taking, so far as possible, a political scientist's view of political institutions, a jurist's view of legal institutions, and a sociologist's view of all institutions, understanding these various views in their main outlines and then, by studying the relation of all these things to the economic aspect of existence, producing a truer interpretation of industry. In line with this point of view, economics has been enriched by the work of students

equipped with special backgrounds in one or more of the companion fields.

Incidentally, having done this, one finds, for example, that business is an institution conditioning law as much as law is an institution conditioning business. Thus business and its component parts: price, competition, credit, *etc.*, come to be looked at as institutions, with all the meaning which the economist's broader view has taught him to attach to that term, whereas his previous habits had led him to regard them as mechanisms. Business becomes not merely a mechanism conditioned by certain social institutions: it is a set of social institutions in itself. This means studying business with a sociological point of view as to its broader relations, and an economist's technique in the handling of details. In Germany there has recently been a considerable development of sociological economics, best exemplified, perhaps, in the writings of the late Max Weber, a jurist, sociologist and economist who is responsible for much pioneer work in the social sciences.[44] He has paid especial attention to the relation between religion and economic ideas and practices: a subject on which R. H. Tawney has also contributed enlightening essays while Roscoe Pound, from the juristic angle, has also noted its importance.

Such a survey of institutions shows that they are all evolving, and reacting upon each other; hence one learns to look for evolution in business itself. As for human nature, that also comes to be regarded as an evolving social institution. Thus an economics based on social psychology would be one variety of institutional economics. It is also in harmony with welfare economics, in that if it undertook to study the relation of business to

[44] See especially his "Wirtschaft und Gesellschaft," a part of the collaborative *Grundriss der Socialökonomik*, 1922. See also "The Life and Work of Max Weber," *Quar. Jour. Econ.*, November, 1923, vol. xxxviii, pp. 87–107.

welfare, it would take as broad a view as welfare economics does, not confining itself to effects produced *via* the creation of exchangeable wealth; nor to price as measuring either the contribution wealth makes to welfare or the sacrifices of production.

Because it believes in the evolution of institutions, this type of economics has a natural attraction for Fabian radicals and an affinity for their type of movement. Descriptive economics, in that it studies the actual working of business institutions rather than the behavior of an ideal competition, would also be in harmony with the institutional point of view; or rather, the institutional point of view is one of the angles from which descriptive economics may receive orientation.

There appear to be two stages in the development of the institutional interest in economic study. The first wishes, in studying business or the price system, to present it in its true relation of interdependence with other institutions, while the second recognizes that business mechanisms are themselves institutions, and also develops an independent interest in the surrounding institutions of property, contract, morals, the family, *etc.*, as active economic forces in themselves, worth studying in their own right. At this stage institutional economics becomes a differentiated line of study, rather than a mere generalized point of view.

In the development of institutional economics in America, aside from Veblen's writings, the chief recent steps have been the study of "social value" by B. M. Anderson, Jr., and C. H. Cooley, Ely's "Property and Contract," and Commons' more recent "Legal Foundations of Capitalism"; also a group of articles and papers by Cooley, Walton H. Hamilton, C. E. Ayres, and W. F. Ogburn, flanked by H. G. Moulton on the more descriptive side, and perhaps supported by Carleton Parker and

the "instinct" school on the psychological side.[45] The writings of W. C. Mitchell, especially his paper on "The Rôle of Money in Economics,"[46] have contributed powerfully to the general point of view. Henry Clay's excellent "Economics for the General Reader" also contains an infusion of the institutional point of view, which may help to account for its wide popularity.

Cooley's earlier books and the teachings of John Dewey have had an outstanding influence in spreading among the present generation of economists the notion that the human mind is essentially a social product, so that a really independent individual is impossible. From the same standpoint, B. M. Anderson and Cooley have both attacked the problem of value and valuation.[47] These writers demonstrate forcibly that economic values are dependent on the legal institutions of personal and property rights, and other legal regulations. The market gives prestige to the desires of certain classes, leading others to imitate them, and to some it gives the added weight of

[45] See Cooley, "Political Economy and Social Progress," *Jour. Pol. Econ.*, April, 1918, vol. xxvi, pp. 366–374; Hamilton, "Economic Theory and Social Reform," *Jour. Pol. Econ.*, June, 1915, vol. xxiii, pp. 562–584; "The Price System and Social Policy," *Jour. Pol. Econ.*, January, 1918, vol. xxvi, pp. 31–68; "The Place of Value Theory in Economics," *Jour. Pol. Econ.*, March–April, 1918, vol. xxvi, pp. 217–245, 375–407; and "The Institutional Approach to Economic Theory," *Amer. Econ. Rev. Sup.*, March, 1919, pp. 309–324; Ayres, "Functions and Problems of Economic Theory," *Jour. Pol. Econ.*, January, 1918, vol. xxvi, pp. 69–90; Ogburn, Paper in *Amer. Econ. Rev. Sup.*, March, 1919, pp. 291–308; Moulton, "Commercial Banking and Capital Formation," *Jour. Pol. Econ.*, May–November, 1918, and July, 1919, vol. xxvi, pp. 484–508, 638–663, 705–731, 849–881; vol. xxvii, pp. 590–600, 604–605; Parker, "Motives in Economic Life," *Amer. Econ. Rev. Sup.*, March, 1918, pp. 212–231. In the field of money the institutional point of view is illustrated in different ways by Knapp's *Staetliche Theorie des Geldes* (recently translated into English) and by B. M. Anderson, Jr., *The Value of Money*.

[46] See *Amer. Ec. Rev. Sup.*, March, 1916, pp. 140–161.

[47] See B. M. Anderson, Jr., "Social Value," 1911, and Cooley's series of articles on valuation in the *American Journal of Sociology*. These articles later became the section on valuation in his latest book, *Social Process*, 1918.

vast purchasing power, so that market values are different from what they would be without this institutional weighting. The evolution of these institutions, and others, results in profound changes in the character and meaning of market values and in the direction which they give to economic efforts.

As between the two men, Anderson is extremely preoccupied with the establishment of a concept of economic value as an absolute entity which shall be distinctively economic, and shall still embody the focussing of all these broader social forces. This quest leads him through paths of dialectic in which the present writer does not wholly follow him. Cooley's more realistic treatment avoids these difficulties, exhibiting the institutional character of the process underlying financial values in ways which hinge not at all on any particular definition of the tangible economic phenomenon on which these forces take effect.

Ely's "Property and Contract" is a very significant contribution studying legal conceptions from the economist's standpoint and giving content to his generalizations by citing a large body of cases. In his emphasis on evolutionary continuity he tends, if anything, to minimize the difference between individualistic and solidaristic types of legal rights. This work should furnish the starting-point for a most fruitful line of study. Some of Ely's work in the field of agricultural organization might also be cited as embodying institutional economics.[48]

Ely's "Property and Contract" and Commons' "Legal Foundations of Capitalism" illustrate in different ways the difficulties of attaining a satisfactory institutional economics. Familiarity must be gained with a large mass of case material; and it must then be interpreted in the light of the questions the economist needs

[48] See "Private Colonization of the Land," *Amer. Econ. Rev.*, September, 1918, vol. viii, pp. 522–548.

to have answered, trends noted and generalizations formulated. But what are the questions in this realm which the economist needs to have answered? The economist himself is likely to be only dimly aware of them until they are suggested to him by contact with the material. After which there is the danger that his interpretation may appear, to the riper experience of the professional jurist, to be superficial or naïve, or far-fetched and disproportionate in emphasis. Progress in this field will require much trying-out of hypotheses, for which purpose there are at present too few workers. There should also be coöperation between economists and the small but growing group of lawyers who, following the lead of Roscoe Pound, Dean of the Harvard Law School, are becoming addicted to "social jurisprudence."

As an example of what the institutional point of view does when it enters the field of the theory of value and distribution, one might well examine Walton H. Hamilton's "Theory of the Rate of Wages."[49] Instead of exerting every effort to reduce the forces governing wages to a formula capable of short and simple statement, of the "supply and demand" variety, he undertakes to exhibit, in their relations to each other, as many as possible of the important forces in the case, static and dynamic, self-limiting and cumulative, forces lying behind individual judgments and forces inherent in the machinery through which these judgments take effect, forces of market strategy and forces setting limits upon it. Obviously the result could never be used as a basis for quantitative prediction except after intensive study of the circumstances of any given case and then only very approximately. His theory does, however, give a directory or index of the forces to be studied in such a survey. It

[49] "A Theory of the Rate of Wages," *Quar. Jour. Ec.*, August, 1922, vol. xxxvi, pp. 581–625.

does not furnish and centre around an abstract formulation of the characteristic outcome, such as economists are accustomed to expect.

In a subsequent volume,[50] the outgrowth of a workers' class, he runs the gamut of these forces, asking what possibilities of increased wages are to be found in each. His conclusions are not radical: wages may be raised by intelligent actions directed at the underlying causes, but the process cannot be rapid. The forces of the market can be modified to a limited extent, but not disregarded. This excellent little study is an example of a behavioristic approach to economic law and exhibits both the strong and the weak points of this method. It contemplates such changes as making the interest-contract amortize the principal, and the use of corporate surplus as a source of costless saving; though, needless to say, it does not demonstrate exhaustively either the possibilities or the limitations of such methods. Such studies as this are a proper sequel to orthodox laws of supply and demand, for the important meaning of such laws lies in the test-questions: To what extent are their results determinate? To what extent are they modifiable? The answer tests both one's understanding of the "laws" and one's creative ability to visualize their results in a novel institutional setting.

THE NEWER ECONOMIC PSYCHOLOGY

It has for some time been evident that the term "psychological school" had been prematurely employed in being used to designate marginal utility theories of value or time-discount theories of interest. This might better be called a "subjective school," for it is distinguished by subjective analysis, but not by a close relation to the cur-

[50] Walton H. Hamilton and Stacy, May, 1923. *The Control of Wages.*

rent work of the psychologists.[51] Its present relation to psychology appears to centre in the question: "Can the theory be maintained in the face of present-day psychology?" or "Can its essential truths be restated in the language which psychologists now use?"[52] As to whether it represents a natural outgrowth of present-day psychology, or makes active use of its dominant ideas and discoveries, there can be no question: it does neither of these things. While this need imply no criticism, nevertheless, with so much criticism in the air, it was inevitable that there would result an attempt to make more positive use of recent progress in psychology.

One line of development has been the psychology of salesmanship and advertising and of industrial efficiency. This involves the study of persuasion and suggestion and the testing of personal capacities and types of attention. These movements furnish important data for economic analysis, though for the most part they are hardly in a form that would be called economics.

On the other hand, the "instinct school" has developed distinctive doctrines in the field of economics, of a sort which exemplify both the advantages and the disadvantages of keeping pace with the controversial frontier of a kindred science. The urge behind the search for instincts is partly to discover the ultimate springs of human action, unconditioned by institutions, but this in turn serves chiefly as a means to uncover what the industrial system does to human nature. The most prominent contribution so far made by this group has been an

[51] Since writing the above, the author notes that Fetter in a recent article gives preference to the term "subjective" to describe the marginal economics, though not wholly discarding the term "psychological." See "Value and the Larger Economics," *Jour. Pol. Econ.*, October, 1923, pp. 601–603, also p. 590, footnote.

[52] This feat is apparently accomplished successfully by Dickinson, in his excellent and scholarly study "Economic Motives," *Harvard University Studies*, 1922.

institutional explanation of personal unreasonableness and shiftlessness.

Interest in the subject has undoubtedly been stimulated by Veblen's "Instinct of Workmanship" and by Thorndike's "Original Nature of Man," to name only two influential works. Veblen, however, does not consistently insist on workmanship as a true biological unit-character, claiming merely that "in human behavior this disposition is effective in such consistent, ubiquitous and resilient fashion that students of human culture will have to count with it as one of the integral hereditary traits of mankind." [53] In other words the decisive thing is that it persists through all observable differences of institutions.

The further search for the economic effects of instincts is chiefly bound up with the promising career and untimely death of Carleton H. Parker. It is largely a development out of the Freudian notion of insanity or hysteria which results from the balking of instinctive desire unless the desire is successfully "sublimated," or directed into a practicable channel: that is, unless one discovers what William James called a "moral equivalent."

Parker extends this idea to a list of instincts taken largely from McDougall, and regards the strike as an outlet for the instincts of self-expression and domination and the shiftlessness of casual labor as an occupational psychosis due to similar warpings and balkings. If this idea must stand or fall with the list of instincts it employs, it would be on precarious footing, for the question of instincts is the centre of hot controversy among psychologists. However, if the impulses in question constitute such persistent wishes that when balked they will either find an alternative channel or else produce unstable states of mind and will, then the Parker hypothesis is vindicated, regardless of how instincts may be defined. For

[53] *The Instinct of Workmanship*, pp. 27–28.

economic purposes the important thing to decide is not whether certain general tendencies are instincts or not, but, first, whether they are stable under institutional change, and, second, whether they display the pathological phenomena of "balked dispositions." In less technical language, we have to study the reasonably permanent needs of human nature, the requirements of a healthy state of the human organism.

One general result of this line of psychological study is to make us think more often of "rationalizations" than of reasons. We should expect the conscious reasons for conduct to be largely pretexts given by man's reasoning mind—and given in all sincerity—for the desires of the beast that is in him or for other impulses which, for one reason or another, he does not avow even to himself. Thus we should not expect the cause of a strike to be necessarily identical with the questions of hours or wages on which issue is joined, one test being that if the issue were gained, the prospect of future strikes might be undiminished, the cause of the strike being untouched. Economists differ in their readiness to accept this view, but on the whole the theory of rationalization has made a deep impression.[54]

As yet this impression is not deep enough to cause economists in general to look upon economics itself in the light of a rationalization of implicit predilections, though there may be a vague or occasional recognition of the likelihood that the wish is sometimes father to the thought, even in the realm of economic theory. Veblen, of course, has done much to bring this issue into prominence. Though the "economic interpretation of history" is now a venerable tradition, no one has as yet given us a

[54] See W. F. Ogburn, "Psychological Basis for the Economic Interpretation of History," *Amer. Ec. Rev. Sup.*, March, 1919, pp. 291–308.

serious and scientifically impartial "economic interpretation of economics"—an interpretation of doctrines in terms of their service in rationalizing the desires or economic interests of particular groups at particular times and places.

Such fragments of this type of interpretation as have appeared have been chiefly weapons of partisan controversy rather than studies made in a scientific spirit. It is easy for a socialist to see the orthodox economics in this light: the criticism fits snugly into that form of economic interpretation which is better named "the conspirital interpretation of history." It is easy for a conservative to see something similar in the involved dialectic of the Marxian theory of surplus-value. It is not so easy to apply this analysis to one's own theories,[55] or to recognize that any general economic theory must, in the nature of the case, partake of this character, to the extent that it necessarily gives to its picture of the world a selective emphasis which will go far to determine what kind of action the theory tends to support.

If economists are naïve in this matter, they are likely to produce rationalizations of inherited prejudices or class interests which they imagine to be quite detached and scientific. On the other hand, if they are forewarned, they are more likely to use the tool of selective emphasis deliberately, conscious of the wishes and interests it may serve to rationalize, and therefore only after satisfying their scientific consciences that they are justified by the relative importance of the interests at stake, as judged by such standards as they can honestly accept, in their rôle as unprejudiced students of the common good.

But we are spending undue time on the rationalizings

[55] Yet Fetter comes near this when he explains the marginal-utility theory of value as a conscious reaction to Marxism, though not a "deliberate piece of partizan special pleading." See "Value and the Larger Economics," *Jour. of Pol. Econ.*, October, 1923, pp. 587, 600–605.

which the economist himself perpetrates; let us return to those he studies. They result in divorcing the springs of action from the conscious motives, and thus furnish one more reason for not being content with the decisions of the "rational" man as indices of human wants. In a sense, the more rational the man the poorer index his decisions might be of the desires of that part of his nature which is biologically the most insistent, and which may do much damange if its wants are denied as the "rational" man is likely to deny them. We used to think our conscious motives wiser than our actions—"the evil that I would not, that I do." We are now being challenged to search and see whether our ("irrational") actions are not in some important respects wiser than our conscious motives, and to interpret their hidden wisdom, that we may find for it some form of expression which our intellects may not be ashamed to own nor society afraid to permit.

In this general line of study, beside the work of Carleton Parker, mention must be made of Helen Marot, Ordway Tead and the students of incentives. One of the leading studies of incentives—Taussig's "Inventors and Money Makers"—has none of the "newer psychology" in it, but is a valuable study of the relation of financial profit to other motives in a series of specific cases.[56]

Another psychological trend, that of behaviorism, has not so much furnished tools for economic study as had a contagious influence upon it, causing many to think of it as the "study of economic behavior." In this field the behaviorist position virtually gives the economist *carte blanche* to construct his own psychology so long as it rests on observation of actual economic life, and, presumably, so long as it is not inconsistent with anything already

[56] *Cf.* also P. H. Douglas' essay in the collaborative volume, *The Trend of Economics*, R. G. Tugwell, editor.

learned by psychologists in their more elemental field of study. The logic of this situation is complicated by the fact that desires and emotions or "affective states" are themselves forms of implicit behavior, yet are not economic behavior, in the usual sense of overt acts. Consequently the observation of economic behavior alone is not the whole story, even from a behaviorist standpoint.

DESCRIPTIVE ECONOMICS

In the field of description a vast amount of work has been done, the best of it being typically oriented by some definite problem or problems. The total flow is enormous, for it is into this channel that government resources and the funds of private research foundations are poured. The work of the Interstate Commerce Commission, Federal Trade Commission and other government bodies, of research bureaus, and a large part of the growing body of materials used in business education, both commercial and agricultural, all go to swell its volume. Much of this is not economics, though most of it furnishes data for the economist, and it is invidious to try to draw boundaries.

And always the task is incomplete. The delvers gather mountains of rock and earth, much of it useful for many purposes but lacking some particular tiny vein of ore or nugget of gold for which humanity thinks it is searching. Are we more likely to find it if we stop theorizing entirely in order to gather larger mountains of data? The fact is that our data, incomplete though they may be, are far ahead of the process of analysis and interpretation which is necessary to extract living truth from quantities of inert facts. We need more theory rather than less.

There are several grades of generalizing interpretation necessary: studies by specialists in subdivisions and in main divisions of the field, and a final synthesis wherein

one mind attempts to organize the most significant things in the entire field, so far as that is humanly possible. This synthesis, needless to say, requires to be something more than a mechanical summation of the more or less disconnected results of the special studies. It is the early or intermediate steps in this process of interpretation which can properly be called descriptive economics, as distinct from masses of raw data.

If American economists were asked to choose by ballot the outstanding contribution of the period in this branch of economics, there is little doubt that the choice would fall on W. C. Mitchell's "Business Cycles." It has been regarded since its appearance as an epoch-making work in its field, and that expectation has been justified by an active ferment of current studies and proposals which "carry on" and aim to utilize the knowledge gained for purposes of control. "Business Cycles" is a monumental example of comprehensive induction, transforming the current way of looking at an outstanding group of phenomena.

One must note that this work starts with an exhaustive survey of existing theories of crises and depressions, a survey which goes far to suggest what data are likely to prove significant. Then follows Mitchell's own summary of the outstanding features of the business organism as relating to this particular problem. Here Mitchell's own theoretical leaning displays itself. Then comes an intensive study of the period from 1890 to 1911, giving by far the most complete and detailed picture hitherto available of the actual events of which the business cycle is composed. Finally comes a series of generalizations in terms of a sequence of events characteristic of business cycles in general and growing inevitably out of the nature of the business organism.

The result is a picture in which the static level of equilibrium does not appear, but instead a series of stages, each growing out of the preceding one, in which change, instead of being self-limiting, has a self-reinforcing quality up to a certain (or uncertain) point, at which it breeds the seeds of reaction, which in turn acts cumulatively until its force is spent.

Here we have a type of inquiry such as Veblen's doctrines suggest, carried out with a thoroughness of induction and a full presentation of data such as Veblen never attempted. The result is sufficiently realistic to afford a more practicable basis for policies of control than had yet been achieved. To some few, Mitchell's book seems to describe without explaining, and the search will continue for interpretations marked by greater simplicity, and a sense of the inevitable "why" which will reach the ordinary mind without requiring it to become so saturated with facts.

H. L. Moore has studied the business cycle from a totally different angle, based on the idea of climatic cycles which afforded the starting-point for Jevons' sun-spot theory. Moore's method differs from Mitchell's as is natural from the difference of subject-matter, Moore emphasizing the fitting together of curves extending over long periods of time and including many cycles. Without displacing the type of theory expressed by Mitchell, it is quite possible that the study of climatic variations may develop to a point at which it may be of material assistance in predicting the timing of business disturbances, though their character must always depend chiefly on the classes of factors analysed by Mitchell.

One issue which has been raised by the growth of descriptive and especially of quantitative studies, is whether the result may not be to render obsolete the formulations of deductive theory of the "orthodox"

type. Mitchell in particular has raised this question,[57] indicating that the data do not lend themselves to the testing of the orthodox doctrines, while they suggest new lines of inquiry which do not fit into the traditional moulds. To a considerable extent this is true, and the outcome will inevitably be a considerable shift of emphasis, introducing new problems and restating old ones. On the other hand, some of the modifications are matters of detail which do not vitally affect the character of the doctrine affected. As an instance of this, we may consider the group of statistical studies which have recently been made in the attempt to measure elasticities of demand and supply; chiefly demand.[58] Here some modifications of the static concept of a demand schedule have appeared convenient or necessary, in adapting the idea to the essentially dynamic conditions represented by the statistics; but the fundamental nature of the concept has not been radically altered. Underlying the employment of the methods of link-ratios and of trend-ratios is the assumption that, at any given time, under the conditions then prevailing, there is a schedule of possible amounts demanded, depending on the price in the familiar fashion. A more serious difficulty, perhaps, lies in the fact that the prices available

[57] See "Quantitative Analysis in Economic Theory," *Amer. Econ. Rev. Sup.*, March, 1925.

[58] See R. A. Lehfeldt, "The Elasticity of the Demand for Wheat," *Econ. Jour.*, 1914, pp. 212 ff.; H. L. Moore, *Economic Cycles*, 1914, Chap. iv; *Forecasting the Yield and Price of Cotton*, Chaps. v and vi; "Empirical Laws of Demand and Supply and the Flexibility of Prices," *Pol. Sci. Quar.*, December, 1919; "Elasticity of Demand and Flexibility of Prices," *Jour. of Amer. Statist. Ass.*, March, 1922; "A Moving Equilibrium of Demand and Supply," *Quar. Jour. Econ.*, May, 1925, vol. xxxix, pp. 357–371; Holbrook Working, "Factors Determining the Price of Potatoes in St. Paul and Minneapolis," *Technical Bulletin 10, Univ. of Minn. Agr. Experiment Station*, October, 1922; H. Schultz, "The Statistical Measurement of the Elasticity of Demand for Beef," *Jour. of Farm Econ.*, June, 1924; and "The Statistical Law of Demand," *Jour. Pol. Econ.*, October and December, 1925. Also Lyon and Raisseur: "The Price Responsiveness of Wheat Growers," *Jour. Pol. Econ.*, December, 1924, vol. xxxii, pp. 707–721.

are for the most part wholesale prices, and thus do not record what the consumer has actually had to pay; while figures for production are sometimes used for lack of accurate figures of consumption. Thus the figures relate more to intermediate than to ultimate demand: a distinction which is of more importance with some commodities than with others.

The "bulk-line" cost curves have already been mentioned.[59] They show the (average) cost of production in each producing unit, the amount produced and the corresponding distribution of output among high-cost, medium-cost and low-cost establishments. This in itself is of scientific interest. The curves have also been used in the attempt to throw light on the elusive "marginal producer," and may afford some modification of the difficult concept of marginal cost. It appears that the price commonly covers the costs of all but the most expensive 15 per cent. (or somewhat less) of the output; and this might seem to indicate that the marginal producer is the one whose cost falls on the 15 per cent. dividing-line. But what does this really mean? Not that this particular producer determines the price, nor even that he is the one who can barely stay in business while those with higher

[59] See Taussig, "Price Fixing as Seen by a Price Fixer," *Quar. Jour. Econ.*, February, 1919, vol. xxxiii, pp. 205–241; *Cf.* also his "Is Market Price Determinate?" *Quar. Jour. Econ.*, May, 1921, vol. xxxv, pp. 394–411; and "A Contribution to the Study of Cost Curves," *Quar. Jour. Econ.*, November, 1923; Kemper Simpson, "Statistical Analysis of the Relation Between Costs and Prices," *Quar. Jour. Econ.*, February, 1921, vol. xxxv, pp. 264–287; and "Further Evidence," *Quar. Jour. Econ.*, 1922, vol. xxxvii, pp. 476–490; Haney, "Price Fixing in the U. S. During the War," *Pol. Sci. Quar.*, June, 1919, vol. xxxiv, pp. 262–269; P. G. Wright, "Value Theories Applied to the Sugar Industry," *Quar. Jour. Econ.*, November, 1917; and "Cost of Production and Price," *Quar. Jour. Econ.*, May, 1919; Horace Secrist, in numerous studies by the Northwestern University Bureau of Business Research. This literature is summarized by A. B. Wolfe, "Competitive Costs and the Rent of Business Ability," *Quar. Jour. Econ.*, November, 1924.

costs are destined to be driven out. For the position of particular producers changes from year to year, and the ones destined to be forced out of the market include only a part of those whose costs are at any time above the 15 per cent. line, together with a sprinkling of those who are, this year, below it. The proposition may mean that we may speak of marginal cost rather than of a specific marginal producer, and we may conclude that price is above or below normal according as it is above or below the 15 per cent. line. But there is room for questioning whether a more consistent index of normal price might not be a normal profit (say 10 per cent.) above average cost, rather than bulk-line cost.[60]

Furthermore, in speaking of marginal costs one must keep in mind that each producer has a cost curve for different rates of output, with various marginal costs, which do not appear in the bulk-line curve at all. Thus the bulk-line curve is not a curve of real marginal costs. Neither is it a supply schedule, as one writer has assumed.[61] It can perhaps best be utilized by not trying to fit it into any preconceived theoretical mould, but by accepting it quite literally for what it is, and learning as much as possible about typical relations of price to the cost curve, and about the behavior of particular producers on the curve, from year to year. It is essentially a behavioristic concept.

Hoxie's "Scientific Management and Labor" is peculiarly interesting as exemplifying, among other things, the trained mind of the scientist, grounded in theory, probing the supposedly objective standards of the empirical science of efficiency and uncovering elements

[60] Some indications in this direction are contained in an article by Kemper Simpson, which is to appear in a forthcoming number of the *Journal of Political Economy*.

[61] See Silberling, "Graphic Illustration of the Laws of Price," *Amer. Econ. Rev.*, September, 1924, vol. xiv, pp. 417–442.

of arbitrary personal judgment. Mention must also be made of the studies of labor turnover, in which S. H. Slichter's "The Turnover of Factory Labor" played a formative part; also of the descriptive studies of workingmen's budgets which lie at the basis of the standards of decent living which play so prominent a part in wage adjustments.

Another important development is the functional analysis of business organization and procedure, which represents a decisive step toward elevating the principles of business efficiency from platitudes and copy-book maxims to the standing of a scientific body of thought. Accounting in particular is being overhauled from this standpoint, and the "radical" wing of the accountants are treating its procedures as means to business ends, rather than as a ritual of revealed orthodoxy. As a result, there is more opportunity than ever before for accountants and economic theorists to meet, if not on common ground, at least within hailing distance of each other.

The significance of the functional method is not easy to convey in a brief statement. It describes things with reference to use and purpose, where ordinary description tends to catalogue activities according to the agency which is acting. This latter procedure results in a tendency to take the agency for granted, whereas a large part of progress consists in entrusting the fairly permanent functions of life to new varieties of agency. Starting one's study with a function, the next step is to compare different agencies as means to its performance, and this leads naturally to making any agency justify itself as an efficient instrument, on a basis of scientific comparison with other agencies.

In the broadest sense, the function of economic life is to subserve the various needs which go to make up human welfare. Hence welfare economics is functional.

Price, on the other hand, is an agency, and pure price economics is a study by agency, not by function. It tends toward taking the agency for granted, and throws light on welfare only so far as price measures it or subserves it. In the main, it ignores non-exchangeable values. Needless to say, the study of business selects "functions" of a more limited sort, instrumental in the life of the business enterprise. Even so, this method of approach cannot fail to have important effects on general economic study.

Perhaps the most recent event is the enlisting of the engineers in their manifestly indicated task of economic statesmanship, first steps being the organization in 1920 of the Federated American Engineering Societies and the publication of their survey: "Waste in Industry," under the leadership of Mr. Hoover. One writer has suggested that some economists should have an engineering and accounting background.[62] Another fact of significance is the growing use of business barometrics: a movement which has until very lately been viewed askance by professional economists. The latter have recently constructed several index-numbers of physical production,[63] while economists engaged in studying the business cycle are making proposals for its cure which involve barometric measurements as an essential prerequisite to the proper timing of the measures of prevention and relief.

Another field to which special attention has recently been directed is that of land economics. Here mention should be made of Arner's study of the growth of land values in New York City,[64] Chambers' study of the rela-

[62] Wolman, "The Theory of Production," *Amer. Econ. Rev. Sup.*, March, 1921.

[63] See W. W. Stewart, "An Index-number of Production," *Amer. Econ. Rev.*, March, 1921, vol. xi, pp. 57–69.

[64] See Arner, "Land Values in New York City," *Quar. Jour. Econ.*, August, 1922, vol. xxxvi, pp. 545–580.

tion of yields of farm lands to the prices paid and to the "unearned increment," [65] and of the work of Professor Ely's bureau of research in land and public utility economics.

SOME PARTICULAR FIELDS

Among the special fields only a few can be mentioned, and we may select financial institutions, business depressions, the wage problem, agricultural economics, public utilities, consumption, and international economic relations. In the financial field, during and since the war, economists have been busy combating the fallacies of cheap-and-easy war financing and resisting the pressure toward inflation, while at the same time they seem to have been developing a more tolerant attitude toward expansion of the circulating medium (within bounds which they are now attempting to define) as a means of unlocking the full productive resources of the nation.

In 1911 Irving Fisher reduced to statistical form the "equation of exchange," the formula embodying the quantity theory of money, and has since kept it up to date.[66] One result of the work of Fisher, Kemmerer and Anderson in this field has been to reveal the overwhelming predominance of check transactions in this country's trade. Fisher has also made a vigorous propaganda for stabilizing the purchasing power of the dollar by making it redeemable in varying amounts of gold, bringing home to students the fact that it is quite possible to prevent at least the longer and slower changes in prices, if the nations are sufficiently in earnest and are in a position to follow a joint plan consistently. Fisher's work on "The

[65] See Chambers, "The Relation of Farm Land Income to Farm Land Value," *Amer. Econ. Rev.*, December, 1924, vol. xiv, pp. 673–698.

[66] See "The Purchasing Power of Money," 1911, also "Equation of Exchange for 1912 and Forecast," *Amer. Ec. Rev.*, vol. iii, pp. 196–198, 341–345.

Making of Index-numbers" also takes high rank among recent pioneer works.

In the field of the business cycle and business depressions, mention has already been made of the studies of W. C. Mitchell and the further work which has grown out of them. Of late, there has been a considerable development of the type of theory which explains the business depression as due to the failure of business to place in the hands of immediate purchasers enough purchasing power to buy the products it is capable of turning out.[67] This theory is now put forward, not in the crude and easily-refuted form in which it has long been used as a socialist argument, but in a form which reckons with the spending of profits and of capital funds, and hinges on the dynamic element of the timing of expenditures. While the theory may not be verified as stated, even in its present form; it appears likely that a careful analysis of the phenomena involved may possibly yield results of some value.

Akin to this theory is one of the most recent developments in the theory of wages: *viz.*, the principle formulated by Mr. John Frey and adopted by the American Federation of Labor at its last convention.[68] This theory states that massed industry, in its own interest and to make possible the maintenance of production by maintaining an adequate market, must pay labor an amount of real wages which increases proportionately with the increase in the productiveness of industry as a whole, regardless of whether the increase has been produced by

[67] See Abbatti, *The Unclaimed Wealth*, and P. W. Martin, *The Flaw in the Price System;* and especially Foster and Catchings, *Money*, and also *Profits*, published by the Pollak Foundation. The foundation has offered a prize of $5000 for the best adverse criticism of the latter book. *Cf.* also Berridge, Winslow and Flynn, *The Purchasing Power of the Consumer*, 1924.

[68] See *The American Federationist*, January, 1926.

labor, capital or management. The theory recognizes that funds divided as profits are spent for goods, as are also funds "saved" and devoted to capital; but insists that the products of massed industry must be largely bought by the workers and that undue inequality in distribution may create a disastrous limitation on purchases in this vital field. The theory appears to need careful scrutiny, criticism and amendment; but it may be found to contain significant elements of truth. This will hinge largely on the fact that an increase of productive power, if it is to be absorbed and utilized, must be directed to the production of new types of utilities, rather than to a mere proportionate increase of customary goods,[69] and that there seems to be a limit to the rapidity with which this redirection of production can be accomplished by our regular market machinery. This may be one of the effective limits on the advance of prosperity, and its effect may possibly be mitigated by the type of policy Mr. Frey proposes. One difficulty is represented by the conflicting testimony offered by the available statistics as to the extent to which wages at present fall short of the standard set up. Another difficulty is illustrated by the fact that one of the studies which follows this general method, by a slight turn in the argument, makes it appear that an increase in wages, by locking up more funds in "circulating capital," actually aggravates the evil.[70] Evidently there are matters here with which the theory has not fully taken account. It is worth noting that a round-table session of the Economic Association was in 1925 devoted to the question of the system of wages best adapted to aid stabilization of business or to care for the interests of labor in view of the business cycle: and another session to the com-

[69] See J. B. Clark, *Essentials of Economic Theory*, pp. 246, 250 ff.
[70] See P. W. Martin, *The Flaw in the Price System*, already referred to.

parative trend of real wages and the per capita product of industry.[71]

Another phase of the wages problem arises from the system of family allowances which is being experimented with in France and other countries. The chief American studies in this field have been made by Paul H. Douglas.[72] W. H. Hamilton's "functional theory of wages" has been mentioned in another connection.

In agricultural economics an association has been formed under the leadership of the indefatigable Professor Ely, and much progress has been made in formulating the problems and principles concerned with the soundness and prosperity of agriculture. The U. S. agricultural bulletins and other reports are furnishing much valuable information, and a recent book of readings by E. G. Nourse renders a notable service in making available a selection of this material, grouped and organized so as to form a connected discussion of agricultural problems in their setting with respect to the entire economic system.

In public utilities, the regulation of prices has become an actuality, limiting earnings. In railroads this did not happen, in effect, until 1911, while in local transportation the question largely took care of itself under our customary five-cent fare system, and was brought to a head by

[71] *Amer. Econ. Rev. Sup.*, March, 1926, pp. 5–70, 78–88.

[72] See "Factors in Wage Determination," *Amer. Econ. Rev. Sup.*, March, 1923, p. 141; "Family Allowances and Clearing Funds in France," *Quar. Jour. Econ.*, February, 1924, vol. xxxviii, pp. 250–293; "Some Objections to the Family Wage System Considered," *Jour. Pol. Econ.*, December, 1924, vol. xxxii, pp. 690–706; "The Amount and Nature of Family Allowances Under a Family Allowance System," *Jour. Pol. Econ.*, February, 1925, vol. xxxiii, pp. 45–59; "Progress of the Family Allowance Movement," *Quar. Jour. Econ.*, May, 1925, vol. xxxix, pp. 476–482; "The Family Allowance System as a Protector of Children," (Bibl.) *Annals*, September, 1925, vol. cxxi, pp. 16–24.

the inflation of costs resulting from the war. The chief questions of economic principle have been fought out around the question of valuation, and the treatise on that subject by R. H. Whitten, librarian of the Public Service Commission of New York, first district, is the most significant work, while the articles of John Bauer have presented the case for actual investment in strong but scientific fashion. The conflict has been waged over original cost *vs.* cost of reproduction, over depreciation and land values, and underlying it all is the tangle of bad economic logic introduced by the legal use of the term "value" as a basis for rate-making, by the indefinite "rule" of Smyth *vs.* Ames for determining this value, and by the persistent manœuvres of the companies to secure recognition of elements of commercial value in one guise or another, regardless of the clear fact that this involves using the rates to determine their own justice. In this tangle the courts are still enmeshed, though the recent concurring minority opinion of Justices Brandeis and Holmes in the Southwestern Bell Telephone Company case squarely rejects Smyth *vs.* Ames, and affords some hope of a more scientific judicial attitude. Attention is also being directed to methods of rating the efficiency of public service companies: a device which can obviously be of great service if the authorities have sufficient independence to utilize it without worshipping it and abdicating their own discretion in favor of the formula.[78] In this general field of valuation and fair return the numerous writings of John Bauer have been characterized by a clear grasp of the main issues, and a constructive attitude. Another phase of the story of public utilities is the beginning of a reduction of "constant and variable expendi-

[78] See especially Morgan's *Regulation and the Management of Public Utilities.*

tures" to a basis of quantitative estimate,[74] and a distinction between daily, seasonal and irregular peaks. In some cases, notably municipal electric supply, the character of the peak has been radically altered by stimulating off-peak business and the usefulness of the plant much increased.

In "consumption" the art or science of domestic economy has developed to a point at which the flippant are forgetting to ridicule it. It becomes evident that this field, in which the economist has too frequently seen but one problem—the choosing of goods in a market—and has taken that largely for granted, is a large field of activity which contains all the essential problems of production. Paul and Dorothy Douglas even find elements of "overhead cost" in it.[75] Mitchell finds the inefficiencies of unspecialized and small-scale activity.[76] One of the recent Hart, Schaffner & Marx prize essays is devoted to the subject of consumption.[77]

As for international economic relations, one can hardly speak of "progress" in this field. Keynes' "Economic Consequences of the Peace" and the various books in which H. G. Moulton has collaborated, are typical of the situation and of the task it imposes on the economist of investigating the post-war adjustment, uncovering its inconsistencies and impossibilities and thus attempting to influence public opinion in directions which may lead to quicker return to normal conditions. This work is, in a sense, work of defense rather than of progress. However, real progress is being made in factual studies, such

[74] Note especially M. O. Lorenz' article, "Cost and Value of Service in Railroad Rate-making," *Quar. Jour. Econ.*, February, 1916, vol. xxx, p. 205. Also G. P. Watkins' *Electrical Rates*.

[75] "What Can a Man Afford?" *Amer. Econ. Rev. Sup.*, February, 1916, vol. xi, pp. 1–95.

[76] "The Backward Art of Spending Money," *Amer. Econ. Rev.*, June, 1912, vol. ii, pp. 269–281.

[77] Hazel Kyrk. *A Theory of Consumption*, 1923.

as those of the American Tariff Commission, and in interpretative work such as that produced by the Institute of Economics, directed by H. G. Moulton, which has devoted chief attention to problems of international indebtedness. A great stimulus has naturally been given to the study of the theory of international trade under depreciated paper currency. Among single studies, Viner's "Dumping: a Problem in International Trade," deserves mention.

ECONOMIC STATESMANSHIP

In the field of actual economic statesmanship, significant experiments have been and are being tried and problems are arising which will furnish material for much work of interpretation and appraisal on the part of economists. Chief among them are perhaps the economic organization of soviet Russia and the more recent Fascist organization of the economic life of Italy. In both, industry is governmentally organized and industrial citizenship comes into being. In Russia, political and economic organizations are merged, while the law recently passed in Italy appears to set up an economic state within the framework of political government. Less radical experiments have been going on elsewhere, involving the assumption by industrial bodies of functions of control and statesmanship, and the according to labor of various degrees of representation in industry, sometimes amounting to genuine partnership. The coal industry in both England and America is an invalid, and government commissions in both countries have attempted diagnosis and prescription without as yet finding a workable cure which the parties concerned were willing to adopt. The Sankey commission's recommendation of public ownership, and the Samuel commission's more cautious proposal for separate public ownership of the coal resources

themselves, are significant examples of what may be forced on an individualistic country by the dilemma of private royalties on natural resources of unequal richness.

Another major problem is the reëstablishment of a reasonably stable territorial division of labor in Europe, after the disruption caused by the redrafting of frontiers and the continuing strain on trade balances produced by international debts and reparations. Only lately England has faced the emergency of a general strike, and a careful analysis of the reasons for its short duration may afford much enlightenment as to its usefulness as a weapon of labor disputes, and the danger which may be feared from it in future. Tentatively, it seems evident that this weapon is too powerful, too hard to keep in peaceful channels and too indiscriminate in its effects to be lightly resorted to by labor leaders themselves, except those who are ready to welcome revolutionary turmoil. These are only a few of the many outstanding tendencies and problems.

SOCIALISM AND ECONOMIC DEMOCRACY

The unifying theme of this study so far has been the progress of a scientific point of view. Has socialism also been growing more scientific? That depends somewhat upon the use of terms. Marxian socialism has been commonly designated as "scientific," in opposition of the "utopian" socialism of St. Simon, Fourier and Robert Owen. And today there appears to be a revival of utopias, in that nearly every radical is drawing plans for the order that is to replace the present, or at least for the direction in which change will come. These programs, however, are not typically conceived in the older utopian style; they represent rather general outlines within which particular questions may be democratically settled. Where they do not confine themselves to forecasting the character of

coming evolutionary change, they are of the character of constitution-drafting, rather than utopia-building.

This last characteristic is clearly illustrated by the British Gild movement, the Webbs' "Constitution for the Socialist Commonwealth of Great Britain" the Plumb Plan and Dr. Rudolph Steiner's book, translated into English under the title: "The Threefold Commonwealth." Broadly speaking, studies of these types deal more with causes than with purposes, or better, perhaps, they deal with the motives and forces they find in the world, under the objective conditions imposed by modern industry, rather than with the writer's personal idea of what is desirable. In this respect, at least, they are akin to Marx, for he predicts a class-struggle and the catastrophic victory of the proletariat not as an utopian ideal but as a result of the irresistible forces of history.

In Russia, this socialism of the class struggle has fulfilled itself, thereby rendering itself obsolete, for attention must now be parcelled out among the multitude of detailed questions of organizing production, proportioning productive forces, allotting rewards and rebuilding a jurisprudence. It becomes evident that, while revolution may be one question, reconstruction is many. Moreover, it remains to be proved whether the revolutionary mind, in Russia or elsewhere, is equal to the task of quickly reconstructing everything at once, without falling back not only upon the personnel trained in private management, but upon the customary commercial machinery and the left-over scheme of morals and incentives. In a word, the success of revolution is limited by its power to reconstruct, and its power to reconstruct may turn out to be limited to a moderate speeding-up of historical evolution.

Regarding this as the lesson of recent history, the great volume of tentative constitution-drafting may be

looked at as being in harmony with the results of a scientific view of revolutions, and as the inevitable next step beyond the ideas of the Marxian class-struggle, when the class-struggle encounters the difficulties of remaking a world without waiting for customs to evolve. One wonders if Marx's thought would have been different if Darwin had preceded him, instead of being his contemporary.[78]

Outside of Russia, socialist movements appear to have been growing less implacable, perhaps as the result of achieving considerable instalments of power and responsibility. Revolutionary syndicalism still hopes for revolution by direct action, through sabotage and other tactics which would make capital valueless in the hands of its private owners and so force its surrender. But the color of this idea is apparently becoming less violent in the light of the fact that labor has already made a good many nibbles at the content of the rights of industrial proprietors; peaceably and under the forms of contract. The weakening of the workers' loyalty has actually set limits on the value of ownership and has led employers to make voluntary offers of limited participation in control. Many laborers expect to keep on until they own the industries. And in England, that country of saving imperturbability, it seems that at least an occasional employer can frankly face such aspirations and such possibilities without suffering a fit of apoplexy.

The modern complex industry affords almost unlimited possibilities for sabotage in numberless forms, making this weapon, broadly defined, one of the great new economic forces. And industry is becoming so highly organized that great efficiency is required for it to operate

[78] Darwin's *Origin of Species* and Marx's *Critique of Political Economy* were published in the same year, 1859. Thus Darwin's thought did not have the opportunity of moulding the formative years of Marx's thinking.

at all without minor breakdowns, while a serious refusal of coöperation can easily create a grave emergency; even famine. Coöperation meanwhile is decidedly imperfect, owing to deep-rooted discontents inherent in the system of old-fashioned ownership in industry. This fact, the outgrowth of the modern character of industry, is at the bottom of the general philosophy of economic partnership or economic democracy in its milder forms.

Some assert that the supply of loyal coöperation will not be forthcoming until the ruling purpose of business is no longer the private profit of the employer but the more dignified purpose of service, the only purpose worth being loyal to.[79] To achieve this would probably require something more than letting the laborers of a single industry into partnership in the game of trying to get as much as possible out of the laborers in other industries. It would almost certainly require an inter-industrial organization.

Thus it seems natural that the most characteristic recent form of socialism in England has been the Gild movement, which attempted to work toward a federated industrial state. The Gild movement has been voluminously studied and expounded, among the leading books being those of S. G. Hobson, G. D. H. Cole and A. J. Penty. It contemplates typically a dual federated organization, of men as producers and men as consumers, but it cannot be said that the question of ultimate supremacy has been satisfactorily disposed of.

More significant than this philosophy, perhaps, was the actual experiment of the building gilds. For two years these organizations made a remarkable record of success, maintaining the principle that pay should continue through interruptions of work, and building houses more cheaply than private contractors. Then the National

[79] *Cf.* R. H. Tawney, *The Acquisitive Society.*

Building Gild encountered difficulties, went into receivership and on January 30, 1923, passed into the temporary control of a firm of private contractors, with the exception of the London, Bournemouth and Scotland organizations.[80] This adversity was the result of many contributing causes. It apparently demonstrated that the national organization could not carry the burden of standing behind all the local committees, some of which were lax in discipline and abused the privilege of continuous pay. Also "a large number of the committees, perhaps a majority, failed to maintain their favorable showing in respect to labor efficiency, as compared to the private contractor, when the incentives ordinarily operating in private industry returned in full force.[81] This section would not be complete without mention of the recent wave of agitation for industrial nationalization in England, best exemplified in the inquiry and report of the Sankey coal commission, which has already been mentioned.

Without attempting to generalize about Russia or Germany, one may fairly say as to England that the recent development of socialisms is marked by a strengthening of the evolutionary live-and-let-live types of movement, and an emphasis on constitution-building which augurs a sense of responsibility. It may also reflect the fact that socialists have been in office in Germany, and the Labor Party in England, and the millenium has not come hopefully near as a result. If socialism had not become evolutionary, socialists would be more discouraged by this fact, and their opponents more triumphant. On the other hand it seems possible that excesses or shortcomings of democratic socialism may, in more countries than one, produce a reaction in the direction typified by Italian fascism.

[80] See Carl Joslyn, *Quar. Jour. Ec.*, May, 1923, vol. xxxvii, p. 523.
[81] *Ibid.*, pp. 533–534.

CONCLUSION

And here the writer must bring this very fragmentary survey to a close, begging the reader to regard it as unfinished, and begging him particularly not to infer that things omitted are necessarily regarded as of less significance than things mentioned.

If this essay appears to fall hopelessly short of including everything that should be included, the writer may plead that a more systematic attempt to catalogue all writers and departments of economic thought would have resulted in making it even more difficult to see the forest for the trees. As it is, it is possible to summarize certain trends in the development of economics as a science.

One may be called objectivity. By this is meant that economic statements get their meaning more directly in terms of objective phenomena and economic concepts are more directly derived from experience. One curious by-product of this is that the subjective theories, deprived of their former *a priori* content, tend to become tautologies. We are not confined wholly to descriptions of behavior, but we are tending strongly to emphasize this type of study. Induction is increasingly prominent, and there has been great progress in exact quantitative studies, in which an increasing degree of precision is being insisted upon. Almost every year it becomes possible to deal inductively, in quantitative terms, with some question which was formerly a matter for *a priori* speculation.

Another tendency is the separation of the economics of prices and markets from the broader studies of the contribution of business to human and social welfare, and of institutions generally. In the theory of marginal utility, the two sorts of study are obviously merged, and neither is as scientific as it could otherwise be. Thus nowadays the study of welfare is not limited to the measure price sets upon it, nor otherwise cramped by abstrac-

tions derived from price, and the study of price is not limited to a hypothetical examination of the behavior which strict utilitarian motives call for. Both branches of study thus become freer and more realistic.

A third feature is that economics recognizes the existence, character and importance of institutions. Firstly, it attempts to study economic phenomena in their true relation to legal, moral and other social institutions. Secondly, it is interested in these institutions for their own sakes, so far as they become active economic forces. And, thirdly, it regards economic facts, methods and organizations in their rôle as institutions, so that price itself becomes an institution rather than a mere mechanical fact, and competition, the labor market and human nature itself are all institutions.

A fourth fact is that modern economics is evolutionary. It recognizes that institutions are evolving. It no longer looks on every departure from the individualistic type as an exception to be isolated or a disturbance to be brought back to normal, but views them rather as minute steps in the movement by which the world feels its way toward something unpredictable. It does not so generally expect its problems to be "solved" in the old sense of finality resulting from discovering what "natural law" demands, then fulfilling it. Rather it expects its problems to go on evolving.

In the fifth place, economics is becoming more catholic as to method, applying, even if it does not recognize, the principle that methods are whatever the material at hand will let them be, and that different economic problems vary widely in this respect and call for widely different methods.

Sixthly, economics is taking a comprehensive view of man's interest in industry, in harmony with the dictum that "there is no wealth but life." Consumption is no

longer the sole end nor production solely a means to that end. Work is an end in itself in that its character and surrounding conditions are among the most important elements determining ultimate welfare, and elements which the market does not adequately register or protect, for reasons which can be shown in scientific terms.

Particular tendencies are too numerous to survey, although one might mention the new emphasis on money and credit, the idea of cumulative or cyclical change in place of gravitation toward a static norm, and the habit of interpreting statements of efficiency and inefficiency in terms of available alternatives. This last carries with it a responsibility for visualizing the alternatives: for projecting the scientific imagination into the realm of hypothetical modifications of the existing order, or substitutes for it, limited always by what our knowledge of the social forces at work shows us to be reasonably practicable. Economics is less detached and leisurely, more in earnest about attaching itself to some useful purpose, more ready to assume that there are resources of productive energy which the "normal" industrial system does not tap, and motives of which it does not fully avail itself.

It is an impressive record of development, but above all, it gives the impression of transition, leading toward a new epoch in which these tendencies shall have gone far enough to show what they can do and whether they will develop a body of thought which can stand alone, without leaning on the heritage of earlier tendencies. Or we should learn whether an organic synthesis is possible.

One thing can confidently be predicted: the "older economics" will not vanish utterly. That is assured by its pedagogical compactness, it logical coherence and availability, and its large measure of pragmatic truth. It can be presented within the limits of an academic unit of instruction, as dynamic or social economics cannot. It is

available to the logical intellect without the need of mastering wide areas of facts. And its analysis of the elements of coöperative efficiency in an individualistic system will remain usefully relevant so long as that system works at all, and so long as " red " radicalism on the one hand or modern mercantilism on the other, threaten us with something worse.

Mere criticism will not destroy this economics. Even the building of contradictory systems, if they are wholly contradictory, will merely leave a gap which the student must fill from other and older sources. This is true, for example, of Veblen's method of reversing the static abstractions and avoiding the field which they cover. One of the most hopeful things is that criticism and re-orientation have fulfilled their chief purpose, for the time being, and that we are now primarily engaged in building up, not tearing down. Even more hopeful, perhaps, is the fact that so many economists are ready to build with any materials that promise useful service, without prejudice against those that are old, any more than against those that are new.

CHAPTER VI

RECENT DEVELOPMENTS IN POLITICAL SCIENCE

BY CHARLES E. MERRIAM, PH.D., LL.D.

Professor of Political Science, the University of Chicago

A COMPLETE survey of the recent development of political science would include a study of the advances made in practical dealing with the problems of politics, an outline of progress made in the analysis of specific doctrines of government, and careful scrutiny of the evolution of political methods. Some of these topics I have discussed elsewhere,[1] and in any event the limitations of this volume preclude the possibility of sketching more than the general outlines of the subject, if proper proportions are to be observed. Little more can be done here than to give a bird's-eye view of the more significant developments in the wide field of political activity within the recent period.

POLITICAL CONTROL

The traditional tasks of politics have been by no means inconsiderable. Forms of domination and inferiority appear even in the most rudimentary types of organic life,[2] and in various subhuman groups[3] systems of social and political control emerge, sometimes with startling similarity to those of the human. In the higher forms of life, however, the political morphology and dynamics is

[1] The development of recent political theory is traced in Merriam and Barnes, *Political Theory, Recent Times*, Chap. i; see also "Recent Developments of Political Thinking," in my *New Aspects of Politics;* also my "Progress in Political Research," in *Political Science Rev.*, February, 1926.

[2] *Cf.* Childs, *Physiological Foundations of Animal Behavior.*

[3] Wheeler, *Social Life Among Insects.*

much more highly differentiated and has required an incalculable time for its development.

In addition to the general system of political control, significant institutions have been evolved by the constant trial and error of the political elements in the community. Among the more conspicuous of these are those of leadership and counsel, military organization, the systematization of justice, codification of rules of action, rudimentary forms of administration. Various types of responsibility of ruler to ruled, and of public morale were developed and maintained in all societies.

PARLIAMENTARY INSTITUTIONS

In more recent times politics has been concerned in the task of constructing parliamentary institutions, substituting in large measure conference and compromise for force; with the labor of adjusting government to the vastly larger modern territorial area of the state; of absorbing the mass of the electorate who in earlier times were outside the domain of the government; of adapting political control to the situations created by the new economic developments, such as the division of large landed estates at one time and the concentration of workers under the modern capitalistic system at another; and finally in the exhausting and thus far unsuccessful effort to provide some system of balance of power between the larger units of political organization.

It may be sufficient to say that the most notable contrivances evolved have been those developed in the region of public administration, in international organization, in the caritative functions of the state and in preventive devices, in which fields conspicuous advances have been made. The parliamentary system was established early in the nineteenth century, and was not subjected to severe criticism. Little advance was made in judicial organiza-

tion. In political education and in public morale, in the maintenance of good feeling between classes and states, the political group was not notably successful, overwhelmed by the magnitude of the task.

Generally speaking, public administration tended to become more expert, technical and professional, reaching high points in certain jurisdictions although distressingly weak at others. Corruption and inefficiency were frequently encountered, but were not typical, and on the whole the tendency was steadily in the direction of more adequate standards, The transition from the older hereditary group on the one hand and the Jacksonian democracy on the other was a difficult one, but progress was unquestionably made here.

CARITATIVE FUNCTION OF THE STATE

Likewise the expansion of the caritative function of the state involved the development of an attitude toward the Church whose function this work had been and an attitude toward medicine and social service on the other. But here also significant advances were made.

The *laissez-faire* theory of the state threatened the reasonable adaptation of political control to the indications of modern industry and science, but here again wiser councils prevailed and the state reluctantly undertook the relief of those who were caught in the new dilemmas of industry and the new revelations of modern social hygiene. The preventive idea was adopted by governments in numerous fields as significant of a new point of view in public affairs, in conservation of material and human values.

These gigantic tasks, involving the development of new devices, the formation of new habits of response, the maintenance of new forms of public morale, have largely absorbed the interest and attention of that relatively small portion of the community at any given time

primarily interested in communal organization and control as distinguished from special forms of organization and control. To develop a system of order under which industry might develop, to evolve a system of toleration under which science could operate, to educate the hitherto inexperienced masses of the community, to adjust political control to the remarkable changes inaugurated by industry and science—this has been a task of large dimensions. It cannot be said that it has been successfully discharged, but progress has been made and the achievement of the political mind in this phase of civilization is by no means negligible, however great the possibilities of improvement still may be.

More careful attention may be given to the development of the process of political reasoning, since this is fundamental to the rational growth of types of political behavior, whether developed in a small number of specialists or in a large group of the community. The notable attempts to improve the methods of finding political truth constitute one of the most significant advances of the time.

DEVELOPMENT OF POLITICAL METHODS

Without undertaking a comprehensive review, a brief sketch of the early development of political method may not be amiss at this point. The first methods of political inquiry are best exemplified in the work of the Greeks.[4] In general their approach to the problems of politics was the philosophical. In the case of Aristotle, however, extensive use was made of the comparison of political institutions, based upon careful collection of available data by political observers. The tutor of Alexander the Great was given by his powerful patron facilities for

[4] See Dunning, *A History of Political Theories;* Gettel, *History of Political Thought.*

gathering political facts which have seldom been surpassed. In the Aristotelian process, therefore, it is possible to find material of the highest value. Primarily philosophical in method, he nevertheless used to a considerable extent what we now call the comparative and observational method. It is interesting to observe that in Aristotle and Plato politics looked forward rather than backward, endeavoring to find the form of an ideal state and the means of maintaining it. In Aristotle this was extended to the study of the methods by which any state might be preserved.

The method of the Romans was primarily juristic in character. They borrowed their philosophy from the Greeks and busied themselves with the tasks of government, administration and law. In legal science they constructed an edifice which is still one of the intellectual wonders of the world, a marvel of political prudence and sagacity. In the scientific study of government they did not advance beyond the Greeks.

The mediæval political theory was legal and theological in nature. The contest between church and state overshadowed the period, and little progress was made in the scientific study of government. The chief stimuli were, in fact, the rediscovered works of Aristotle and the revival of interest in the Roman law. In a contest where logic is the chief weapon, Aquinas, Marsilius, Occam would fare well at any time, but of the verification of hypotheses they remained innocent.

Following the mediæval period there appeared signs of important advance in the study of government. This was notably true in the case of Machiavelli and Bodin. The Italian thinker, breaking loose from the theological trammels of the early period, undertook the actual observation of political processes and the development of rules of conduct upon this basis—a process which if continued

might have led to significant political progress. Bodin, the greatest publicist of the sixteenth century, sometimes called the Aristotle of the Renaissance, revived some of the methods of the Greek and to these added the study of history as a basis for political conclusions. Likewise Montesquieu in the eighteenth century strove to turn the study of politics into the channels of observation and comparison of actual institutions of government and society, and for the moment while he charmed the European world with his *Esprit des lois,* succeeded in doing so.

All of these tendencies were swept aside, however, with the development in the seventeenth and eighteenth centuries of the natural-law school of political thought, which dominated the minds of men for generations.

The *Naturrecht* thinkers based the study of politics upon an assumed state of nature and the traits of mankind as discovered in this precivil state. But as no such state was found, either in records or by observation, the characteristics of the political man were largely deduced from the imagination or the credulity of the philosopher. This situation furnished a powerful formula for a revolutionary movement. It destroyed the tradition that reflection upon government is treason to the divinely anointed king, and encouraged men to believe that government is a creature of their own will and purpose over which they possess complete control. And to this extent it tended to liberate the human mind from the bonds of custom and tradition. But it did not go far toward the advancement of a genuine political science.[5] Montesquieu, Bodin, Machiavelli were swept aside for the time, and the development of more accurate methods of political inquiry was obliged to await a later day.

[5] Some of the psychological implication contained in the thinking of Locke and Rousseau are discussed in *New Aspects of Politics,* Chap. iii.

The philosophical treatment of politics, firmly established in the seventeenth and eighteenth centuries, continued in recent times, but with less notable examples of logical method than in the eighteenth or earlier nineteenth century. John Stuart Mill's type of political and social reasoning had marked the end of an epoch of speculation among English thinkers, as had that of Hegel among the German philosophers.[6] Bosanquet was an apostle of neo-Hegelianism, while Hobhouse dissected the metaphysical theory of the state. Sorel, an engineer, and Cole, an essayist, discussed political problems in philosophical style, while Bertrand Russell, the brilliant mathematician, evolved a theory of politics. The pragmatists, best represented by Dewey, definitely set about to effect a reconciliation between philosophy and affairs, and to develop a type of logic adequate to the demands of the situation. In the main, however, it is clear that *a priori* speculation upon political questions was on the decline as compared with the thinking of the eighteenth and nineteenth centuries.

Of these thinkers the contribution of Mill was by far the most significant. This notable scholar grappled directly with the problem of reasoning in the field of the social sciences, or as he termed them the moral sciences.[7] Here we find expressly set forth the various forms of reasoning judged by him to be applicable to the various disciplines and the advocacy of the well known "inverse deductive" method for social research. "Ethology" appears as a branch of knowledge, with the science of government as an inseparable part of it. Whatever may be thought of Mill's methods and conclusions, and they are open to many exceptions, they command the highest respect in any survey of the struggle of the human mind

[6] See Mill, *Logic;* Dunning, *op. cit.*, vol. iii, Chap. iv.

[7] See his notable chapter in his *Logic* on "The Logic of the Moral Sciences."

for mastery of social and political situations. No other thinker down to his day had grappled so courageously with the basic problem of political presuppositions and with the logic of the political process.

THE JURISTIC POINT OF VIEW

Many thinkers approached the problem of government from the juristic point of view, and primarily their method was the logic of the law.[8] But in many of the leading instances, this attitude was modified by other forms of inquiry. Thus Gierke was essentially a student of the genesis of political ideas. Maitland and Pollock were also deeply interested in the genetic processes of legal development. Von Ihering, with his far-reaching doctrine of social interests, the protection of which is the chief concern of the law, was deeply affected by the social studies of his time, and showed the profound influence of the social science of his day. Berolzheimer was imbued with the influence of social and economic forces in shaping the course of law and government. Duguit was likewise fundamentally affected by the rising study of social forces and of sociology in systematic form. Pound with his sociological jurisprudence is a modern illustration of the same general tendency. Jellinek with the theory of "subjective public law" and Wurzel with his "projection theory" are conspicuous examples of legal logic modified by psychology and by the consideration of social forces.

CRIMINOLOGY

The study of criminology followed another line of advance, proceeding with Lombroso and his more conservative followers to adopt methods of measurement, to consider the influence of the environment to make statistical

[8] See "Science of Legal Method," in *Modern Legal Philosophy Series*, Chap. xi.

analysis, foreign to the speculations of the stricter juristic group, but enormously fruitful in ultimate effect upon the nature of penology. In this respect these studies differed widely from the current type of legal speculation, being founded upon the basis of scientific inquiry rather than upon precedent or the logic of the law.

HISTORICAL MOVEMENT

A frequent way of approach to the study of politics has been the historical inquiry into the development of political institutions. The modern historical movement began as a reaction against the doctrinaire theories of the French revolutionary period, and swept through the domain of law and government. In recent times it has been a well-travelled road toward political conclusions, and much of the energy in political research has been expended in this field. A survey of the literature of the time shows that the bulk of the output falls under this category. The process of development is employed for the purpose of illustrating broad movements and tendencies of political and social forces, and perhaps deducing certain lessons, morals, or laws from the examination of the past. Thus the previous development of the institution or the people is used to explain its present status or its probable future tendency. In these situations the history of political ideas or customs or forms of institutions becomes the background for the consideration of its present situation.

Another method has been that of comparison of various types of institutions, with a view of classifying, analyzing, discovering similarities and dissimilarities in them. Here we have a study of comparative government or law which, while using historical material, is not confined to an inspection of the genetic process, but employs contemporary material as a basis for political reasoning.

Industrious researches of this type have been carried on in recent years both by jurists and by students of government, Kohler is a conspicuous example of the juristic group and Bryce of the other. Freeman, Seeley, Sidgwick, Hasbach, Laband, and many others have employed similar methods. In general, description and classification are developed in this way and certain useful comparisons and analogies are set up.

With the comparison of types there came to be a body of political science centering around the observation and description of actual processes of government, as distinguished from historical development or from comparisons of existing types of organization and structure. Much of Bryce's work fell under this head, as did that of Ostrogorski, Redlich and Lowell. Bryce's *Modern Democracies,* Ostrogorski's *Democracy and the Organization of the Party System,* Lowell's political contributions, and Redlich's *Local Government in England* are examples of this method of studying government. Many monographic studies of the workings of particular institutions were made in various parts of the world, some decidedly descriptive and structural and some more noticeably analytical. Many of these studies were of course combined with historical inquiries and comparative and analogical researches.

THE SURVEY

Closely associated with the development of comparison of types and observation of processes was the form of investigation which came to be called the survey. This method of investigation appeared almost simultaneously in economics, government and sociology. The essence of the survey was the actual observation of forces in operation, with an effort to measure these forces and to standardize some system of measurement. The survey

owed much to the engineers and the accountants who contributed materially to its development. The engineer was of course the original surveyor, laying out his lines and conducting his measurements with great accuracy and precision. Surveys of human behavior were also taken up by the industrial engineers, especially in the form of the time and motion studies of the Taylor-Emerson type. Here we have an effort at precise measurement of human behavior in the shape of what is commonly called scientific management. At the outset these studies omitted the basic factor of psychology, but later on they reinstated this essential element in their calculations, although not achieving complete success in this undertaking. The accountant also aided through the analysis of financial data leading to the creation of cost accounting, a process which led to an objective appraisal of human behavior or human services rendered for specific purposes. Thus the accountant and the engineer have given a sharper point to the observation of political forces and processes than it had ever had before.

The social survey was developed by the sociologists, approaching the inquiry from another point of view. Much was undoubtedly due to the efforts of city workers of the type of Booth in London and many other scattered students. The classic type or large-scale survey employing modern methods was the Pittsburgh survey, followed by many others, usually upon a smaller scale. The survey, of course, contained elements of advertising, or publicity, or even propaganda as well as an element of scientific analysis, and sometimes the advertising features overtopped the scientific analysis, but in the main it directed attention specifically toward concrete factors which were observed objectively and as far as possible measured accurately, analyzed, and compared carefully. In the work

of the Sage Foundation, the standards of the survey were materially improved under systematic treatment.[9]

The political survey developed most rapidly in the United States and especially in the urban communities. The large-scale losses and wastes in the expenditure in cities challenged attention, and specialized grafting was met by specialized analysis and inquiry for the purposes of community protection. These investigations, while carried on by trained students of political science, were usually conducted outside of the academic walls. The leader in this movement was the New York Bureau of Municipal Research, followed by many other similar agencies in Chicago, Philadelphia, Detroit, and elsewhere. The political survey was the immediate observation of the operations of government combined with the effort to measure these operations as precisely as possible and to organize methods of comparison and conduct analysis of facts observed. This method was distinct from the juristic method or the historical method or the historico-comparative method in that it substituted actual observations of government in operation and made strenuous efforts toward precise measurement. These efforts were not always wholly successful, but at any rate they were movements in the direction of precision. Later, similar undertakings were set on foot by state governments and by the United States government. In England also national inquiries of the same character have been carried through on a considerable scale.

POLITICAL PSYCHOLOGY

Another group of thinkers approached the study of government from the point of view of psychology, or of social psychology, bordering upon what might be called

[9] See publication of Russell Sage Foundation, *Department of Surveys and Exhibits.*

political psychology. Of these by far the most conspicuous was the English thinker, Graham Wallas, whose *Human Nature in Politics,* and the later and more systematic study, *The Great Society,* started a new line of political investigation and opened up new avenues of research. It is interesting to compare Wallas' chapters on material and method of political reasoning with the famous chapters in Mill's *Logic* on the logic of the moral sciences.

Wallas, originally a student of the classics, later interested in practical political activity, reacted against the consideration of government in terms of form and structure and undertook an interpretation in terms of human nature. This method of inquiry seemed to involve the development of a type of political psychology. In his *Great Society* Wallas considered political forces as organized around the three fundamental factors of intelligence, love, and happiness, on the basis of which he endeavored to rebuild a political theory and a political structure. In *Our Social Heritage* he opened out still other forms of subtle analysis of political processes, hitherto unexplored.

Wallas' work was brilliant, stimulating, and suggestive rather than systematic. While he discussed the influence and importance of quantitative measurement of political phenomena, he did not make elaborate use of statistical data in his work; and while he continually emphasized the significance of a psychology of politics, he did not advance far in that direction. But on the whole his work was a decided variation from that of his predecessors or contemporaries, and his impetus to a new method was a notable one. An interesting comparison might be made between the method of John Stuart Mill, that of Lord Bryce, and that of Graham Wallas, all significant figures in the shaping of English political thought. Walter Lippmann followed much the same method as his

early instructor, Wallas, notably in his *Preface to Politics* and in his *Public Opinion*.[10] Lippmann made wider use of contemporary psychological advances than did Wallas, however.

In the writer's *New Aspects*, he has called attention to the neglected border lands of politics, to the urgent demand both for more intensive studies of political processes on the one hand, and to the desirability of developing new categories of political inquiry on the other. The significance of statistics, of psychology and of anthropology as avenues of approach to the traditional problems of politics were also pointed out.

Now whether the policies of nations or of the world are labelled biology or politics or geography or economics matters not at all, and that question we may leave to the logomachists. But whether the groups of students who have fundamental facts in their possession and entertain different but important points of view are able to come together and integrate their knowledge in comprehensive scientific form, is of the very greatest concern to the whole human race. There is perhaps no consideration more significant than this at the present time, both from the scientific and from the political point of view. And if there were a benevolent despot of science, he would compel the union of all the scientific agencies, centering around the welfare of the race. Geneticist and environmentalist, psychologist, anthropologist, biologist, social scientist would all be brought together to consider the fundamental social problems in which they are all concerned and which cannot be effectively solved without their joint consideration and action.

There were also eclectic types of thinkers employing several of the methods just described. There was no writer who did not employ logic and history and com-

[10] Especially Chaps. xxiii-xxviii.

parison and analogy at various times. Even the most dogmatic lapsed into statistics at times, and the most statistically inclined developed philosophical attitudes somewhat inconsistent with the general position of the statistician. Differences in method were often differences in emphasis and in degree rather than in kind. Nevertheless, the differences were appreciable and significant evidences of the general tendency in methods of political theory. Broadly speaking, they indicate the following to be the chief lines of development of the study of political processes:

1. The *a priori* and deductive method, down to 1850.
2. The historical and comparative method, 1850–1900.
3. The present tendency toward observation, survey, measurement, 1900.
4. The beginnings of the psychological treatment of politics.

From another point of view we may summarize the advances in the study of politics in the period since the vogue of the natural-law philosophy, roughly speaking, during the last one hundred years, as:

1. The tendency toward comparison of varying types of political ideas, institutions, processes; toward analyzing similarities and dissimilarities.
2. The tendency toward closer scrutiny of economic forces in their relation to political processes, in some cases extending to the economic interpretation of all political phenomena. In this, the relative ease of quantitative measurement of certain economic facts greatly aided the process, in fact tending to an extension of "economic" beyond the ordinary usage of the term.
3. The tendency toward the consideration of social forces in their relation to political processes. At times this took the form of a social interpretation of all political facts.
4. The tendency toward close examination of the geographical environment, and its influence upon political phenomena and processes.
5. The tendency toward closer consideration of a body of ethnic and biological facts, in their relation to political forces.
6. These influences taken together set up another relationship between political phenomena and the whole environment, both social and physical. Crude analogies of this kind had already been made by Bodin and Montesquieu, but these were by no means as fully developed as the later and far more minute and searching inquiries.

7. The tendency to examine the genetics of political ideas and institutions. This was the joint product of history and biology with their joint emphasis on the significance of historical growth and development and of the evolutionary theory of life. Since the middle of the nineteenth century, it has operated powerfully upon all political thought.

8. The joint tendency to combine a view of the environment (economic, social, physical) as a whole with the genetic or evolutionary point of view may be said to have effected a profound and indeed almost revolutionary change in political thinking. Certainly this is true in comparison with the static doctrine of scholasticism, or with the absolutistic tendencies of the *Naturrecht* school of thought.

9. The tendency toward more general use of quantitative measurement of political phenomena. On the one side this took the form of statistics or the mathematical analysis of political processes. The great agency through which this was brought about was the census, which prepared great masses of material for the use of the observer and the analyst. Two disciplines in particular were able to apply the quantitative methods with especial success. These were anthropology and psychology, in which domains notable advances were made in the direction of measurement.

10. Political psychology was foreshadowed but not at all adequately developed during this time.

These tendencies taken together may be said to constitute the most significant changes in the character of political thought down to the present day.

The development of specific doctrines in the field of political science in the recent period is a subject of such ample proportions that it can scarcely be dealt with adequately in the limits of this article.[11] Furthermore, it may be said that many of these theories represent the interpretation of new social forces in old terms rather than scientific advance in the evolution of political reason. Thus the new theories of pluralism obviously reflect the new economic groupings so conspicuous in recent social development. The imperialistic theory is clearly the philosophy of the expansion of the larger states into the more backward regions of the world. Likewise the new forms of internationalism keep pace with the advance of means of communication and transportation. Theories of fascism

[11] See Merriam and Barnes, *History of Political Theory, Recent Times*, covering the period from 1880 to 1924.

and dictatorships of various types are echoes of the unrest that pervades much of the world and expresses itself in a strong executive power as the repressive force to deal with the situation. The new doctrines of anarchism such as those developed by Kropotkin are the by-product of the evolutionary theory, applied to the earlier assaults upon capitalism.

In particular a large body of theory was built up around the institution of democracy in all of its phases. Both the protagonists of democracy and its critics were very active and the clash of their counter doctrines was heard on every side. Between communists on the left and the restoration on the right, democracy was hard pressed, yet made widespread progress in almost every direction. State after state undertook the establishment of a democratic regime, and the hereditary transmission of political power was almost eliminated by the end of this period. The trappings of aristocracy continued but the substance of power was gone. Valiant defences of monarchy were made by many stalwart champions such as Roscher [12] and Hasbach,[13] but these efforts were futile in the face of the irresistible trend toward the democratic regime.

If time permitted it would be interesting and perhaps useful to trace the various modifications of earlier theory under the influence of later industrial and social conditions, but obviously this is not the occasion for so extended a treatment of political ideas. Transparent as many of the newer rationalizations may be, they are none the less significant factors in the intellectual life and the political control of the time, and cannot be omitted in any comprehensive appraisal of the period. An idea is real and may be effective, whether it be true or false.

[12] *Politik.*
[13] *Die Moderne Demokrati.*

NEW FIELDS OF INQUIRY

Many new fields of inquiry were opened by the students of politics in the last generation, sometimes working alone and sometimes in conjunction with workers in neighboring fields. Among these new territories was the nature and character of the urban political life, hitherto a largely neglected factor in political discussion but now a topic of extended inquiry. The legal, governmental, political implications of the modern urban aggregation were widely considered, and became the basis of many significant studies. At the other extreme, international relations were much more sharply considered than ever before in the history of mankind. Sometimes this took the form of the older international law and history of diplomacy, but in other cases the inquiry was pushed back of the formal into the vital relationships underlying them.

The characteristics of political parties were for the first time investigated carefully within the last generation, and substantial progress was made in the development of observation and of analysis. Bryce led the way in this study, but was followed by a great number of other inquirers. In consequence of this new approach to a fundamental problem much light was thrown on the nature of modern political control. In close relationship with this type of research went the study of public opinion in many of its phases, a search in which the student of politics joined with the sociologists in the effort to arrive at a more intimate understanding of the occult problems presented by these phenomena. Bryce, Lowell, Lippmann were the leaders in this field, approaching the problem from different angles, yet converging on a question of central significance.

The processes of legislation were also subjected to

much more minute inquiry than ever before, both on the technical side by the draftsman, and from the point of view of those examining the political, economic and social forces conditioning legislation. This is preëminently the era of conscious and deliberate law-making and inevitably this outstanding feature of modern political organization challenged the interest of observers, although not in as great numbers as might have been anticipated from the importance of the subject. Bill drafting, comparative legislation, the conference process, the causes and consequences of law-making were, however, scrutinized by many skilled students and many interesting and valuable results were obtained from these pieces of research. Much less attention was given to the study of the effects of laws than to the process of their passage, although these numerous experiments afforded the most significant material for the purpose of the observer of social experiment.[14]

Those who sought for dogmas in these fields were not many and those who found them were fewer, for this was not so much a period of conclusion as it was of exploration and discovery, a prescientific stage essential before the scientific could be reached. Toward the end of the period, the opening of new fields and the application of experimental methods went on at a much more rapid rate than ever before, and the net result was of course a degree of confusion as to what was actually being accomplished. This, however, was not a signal for despair but rather a sign of hope.

The old time dogmas of government were to a considerable extent replaced during this time by types of

[14] Further detail regarding the progress of political science on the boundary lines of psychology, anthropology, biology, and other kindred disciplines is given in the writer's *New Aspects of Politics.*

invention which illustrated the possibilities of intelligent political and social control. For example, city planning and regional planning are important and useful inventions in the political field, as serviceable in their way as constitutions and bills of rights in theirs. The world court, the league of nations, the British commonwealth of free nations, are valuable forms of political invention of great social significance to the peace and prosperity of the race. The contrivance of the juvenile court is another interesting illustration of the creative faculty working in the institutional field for the betterment of actual conditions. From the same point of view the shift from the repressive to the preventive side of political action, as seen in the growth of preventive public health, in the advance of preventive criminology, in the rise of preventive police; all these are examples of enlightened and intelligent contrivance in the world of political research and theory. And it is in contrivances of this type rather than in abstract formulas that the recent period has been most prolific.

The swiftly changing character of modern social organization made many such adjustments necessary, and has often overtaxed the ingenuity of the student or practitioner of government even in his most resourceful moments.

Broadly speaking, we may say that the study of government is struggling hard to keep its feet and find the way toward more objective methods and more precise results. The new politics would bridge the gap between art and science, and bring us to more precise methods of political and social control than mankind has hitherto possessed. The new politics looks forward as well as backward. It would supplement traditional lore with experiment; it would be constructive and inventive as well as customary and habitual. It would create and

control habits as well as utilize those that are handed down. It would use the mechanisms of education and eugenics for political and social organization and control. The new politics would not be unmindful of history or tradition or of the subconscious, but it would consider inheritance and environment as science unfolds them rather than as privilege or power portrays them. There can be little doubt that we are on the verge of fundamental changes in the study of government, the precise nature of which not even the hardiest ventures to forecast.

CHAPTER VII

RECENT DEVELOPMENTS IN HISTORY

BY HARRY E. BARNES, PH.D.

Professor of Historical Sociology, Smith College

I. THE IMPORTANCE OF THE HISTORY OF HISTORY

THE historian may be legitimately presumed to be interested in the problems of genesis to an unique degree, and in a certain way this will be found to be true. Singularly enough, the greatest exception is to be found in the attitude of the historian towards his own subject. Though formal historical works have been composed since the days of Herodotus, it is a curious fact that we have not to this day an adequate unified account of the history of historical writing, though we have, of course, significant contributions to the history of history in certain periods of its development. It is chiefly for this reason that we normally find that professional historians know much *of* their subject, but little *about* it, their situation being not unlike that of the average orthodox Christian with respect to his Bible. In general, they have drifted into their profession through a literary or romantic interest in the subject, originally induced, perhaps, quite accidentally by the reading of *Famous Frontiersmen, Plainsmen and Scouts* or John Lord's *Beacon Lights of History*. Entering college and determining upon a pedagogical career they have normally pursued a number of specific courses dealing with various periods of history, and in time executed a formal dissertation exhausting a concentrated and abstruse problem in the history of some country in a particular period. By a happy and rare accident they may have fallen upon some teacher who was interested in the nature, purpose and possible services of

history, and who at times discussed such matters with his class, but the vast majority will be found to have indulged in no prolonged or critical reflection upon the deeper purposes and obligations of their profession or the desirable and possible results which may come from an intelligent consideration of the facts of man's origin and development. Occasionally they may have come into contact with the dogmas that "history is past politics," or "collective biography," which have been reinforced by the fact that such conceptions have usually been exemplified in the historical teaching and writing with which they have been acquainted.[1]

This lack of thoughtfulness concerning the subject of history on the part of its professional practitioners doubtless accounts for its long period of stagnation and irrelevancy. This thesis seems to be borne out by the fact that as soon as writers began seriously to reflect upon the nature and purpose of history they have initiated various movements designed to make its subject-matter more dynamic and pertinent, in other words, to produce a type of history which would make such lessons as the past contains for the present clear and intelligible. It is not without significance that, for the most part, those who have contributed to the creation of the new history have been those who have preceded and accompanied their labors in this direction by a sincere and effective interest in the nature and history of history. It seems that only by looking over the development of the writing of history as a whole and understanding the evolution of the various notions and ideals which have dominated it in

[1] Interesting discussions are to be found in J. T. Shotwell, "History," in *Encyclopedia Britannica*, eleventh edition; W. H. Mace, *Method in History;* H. Johnson, *The Teaching of History;* H. G. Wells, "History for Everybody," *Yale Review*, July, 1921; B. Croce, *History: Its Theory and Practice*, Part I, Chaps. ii, v, vi; F. S. Marvin, *The Living Past*, Chap. i; J. W. Swain, "What is History?" *Journal of Philosophy*, 1923; F. J. E. Woodbridge, *The Purpose of History.*

the past can one secure perspective and enough detachment from present conventions to be able to criticize and depart from them. Professor James Harvey Robinson has indicated that the general history of ideas is the best possible cultural therapeutic to free us from subservience to the anachronisms in our present-day modes of thinking; it seems equally true that an assiduous cultivation of the history of history gives the best assurance of escape from the conviction that history has reached its final development with the episodical and anecdotal political, military and diplomatic history which still constitutes the dominant ideal of the respectable historians of our generation. Hence, we shall examine briefly the various stages through which the writing of history has passed, in the effort to discover the transformations in the guiding ideals and practices which have controlled its development. We shall then be in a position to indicate more intelligently the nature of the innovations which together constitute what thus far exists of the so-called "new history."[2]

II. THE DEVELOPMENT OF HISTORICAL WRITING AND ITS ACCOMPANYING PHILOSOPHIES

In spite of the rather sad efforts of such writers as James Ford Rhodes to prove Thucydides and Tacitus the greatest historians of all time,[3] it appears clear that history cannot be regarded as a static affair, but shares with most other types of cultural achievement conformity to the general laws of change and development. To a surprising degree the history of history reflects the general

[2] H. E. Barnes, "The Past and the Future of History," in *Historical Outlook*, February, 1921; *History and Social Intelligence;* J. H. Robinson, *The New History*, Chaps. i, ii, v; J. T. Shotwell, *An Introduction to the History of History*, Chap. xxvii; K. Lamprecht, *What is History?* Chap. i; H. M. Stephens, *History.*

[3] J. F. Rhodes, *Historical Essays*, Chap. i.

course of thought and culture—the successive alterations in world outlook and in human ideals and aspirations.[4]

The origins of the record of human activities, which constitutes the subject-matter of history, must be sought in the work of archeologists who have recovered for us the remains of human cultural achievements over a period of at least a quarter of a million years. These artifacts and other relics of human ingenuity in the distant past have been classified in a genetic sequence, and the eolithic, paleolithic, neolithic, bronze and iron ages now constitute the foundation of historical chronology rather than the genealogy of the sons of Noah. We have put aside the term "prehistoric," as an impossible and misleading term, nothing being prehistoric which is known from any source whatever. In its stead, there has been developed the notion of *preliterary history* as descriptive of that long period of human development anterior to the mastery of the art of writing. So adequate and pertinent have many of these archeological discoveries been that frequently we are able to reconstruct a better picture of the life of man in this early period than we can piece together from written sources for later eras. Every self-respecting ancient history begins today with a section devoted to early man in Europe and the near Orient. Anthropology, particularly the branch known as "archeology," has now become permanently established as the "threshold of history."[5]

[4] See H. E. Barnes, "History: Its Rise and Development," in *Encyclopedia Americana*, edition of 1922; B. Croce, *The Theory and Practice of History*, Part II; J. H. Randall, Jr., *The Making of the Modern Mind*.

[5] Reliable works in English on these topics are H. F. Osborn, *Men of the Old Stone Age;* J. M. Tyler, *The New Stone Age in Europe;* V. G. Childe, *The Dawn of European Civilization;* O. G. S. Crawford, *Man and His Past;* and M. C. Burkitt, *Prehistory*. The best popularization is contained in M. and C. H. B. Quennell, *The Old Stone Age;* and *The New Stone, Bronze and Early Iron Ages*. The latest and the standard work on the whole period is G. G. MacCurdy, *Human Origins*.

It was natural that the beginnings of written history should take the place in the area of the origins of the art of writing itself, namely, the ancient Orient. Much of historical importance in the way of regnal lists, summaries of dynastic achievements, myths and legends were contributed by the Egyptians, Babylonians and Assyrians, but these peoples produced no comprehensive historical narratives. The first notable performance of this type was executed by Judean writers of the late tenth and the ninth centuries B.C. These so-called Jahvist histories of the foundation of the united Hebrew kingdom are superior to anything in the way of historical narrative which appeared before the work of the immediate precursors of Herodotus. They reach their highest level in Second Samuel IX–XX. In no other canonical books of the Old Testament does one meet with an historical narrative of respectable accuracy, but in First Maccabees is to be found an example of historical writing which compares favorably with the "Great Judean History" of some eight centuries earlier.[6]

Historical writing of a serious character first flourished in a systematic and consecutive manner among the Attic Greeks. Interest in history seems to have been a phase of their unique intellectual activity. The Greeks were the first to deal with intellectual and social problems in a critical manner, and their reflective genius and literary interest naturally led them into the pursuit of history. While not ignoring certain important contributions to chronology, ethnography and biography in the seventh and sixth centuries B.C., it may safely be said that Greek historical writing began with Herodotus' *History of the*

[6] A. T. Olmsted, *Assyrian Historiography;* R. W. Rogers, *Cuneiform Parallels the Old Testament;* J. T. Shotwell, *Introduction to the History of History*, Chaps. v–xi; G. F. Moore, *The Literature of the Old Testament;* J. Bewer, *The Literature of the Old Testament in its Historical Development.*

Persian War, an intimate work of compelling literary interest, with long digressions into mythology, ethnography and cultural history that were once regarded as preposterous, but which have been vindicated in large part by modern oriental archeology. Thucydides, in his *History of the Peloponnesian War,* brought out a much more coherent and symmetrical work guided by a far more critical sense, but it is absurd to regard it as in any sense, save the literary, the slightest approach to the best types of contemporary historical writing. It scarcely measures up to a single canon of modern synthetic history. A more profound contribution, including incidentally the first significant discussion of the nature and methods of history, was the work of Polybius on the *History of Rome,* but its indifferent literary quality prevented it from having wide popularity among contemporaries or posterity. The Roman historical writing was but an illustration of the manner in which Greek models of expression could be applied to themes drawn from the history of the Italian peninsula. Livy constructed a great national epic dominated by patriotic and religious ideals and designed to arouse sentiments of reverent devotion to his country on the part of the Roman youth, while Tacitus presented a brilliant indictment of the political and social trends of the early imperial period, which he regarded as a regrettable decline from the vigor and virtues of the Republican age. With the general passing of the culture of the Græco-Roman world, as the result of its inability to provide the technology which would furnish the material basis requisite to support a brilliant culture in a permanent manner, classical historiography passed from the level of Tacitus to that of Gregory of Tours.[7]

[7] Shotwell, *op. cit.,* Sections III–IV; J. B. Bury, *The Ancient Greek Historians;* H. Peter, *Wahrheit und Kunst;* and *Die geschichtliche Litteratur über die römische Kaiserzeit.*

A great intellectual revolution preceded and accompanied this transition from Greek and Roman to Christian historiography. The Greeks and Romans had been interested chiefly in secular affairs—the rise of the Athenian state and its conflicts with its enemies, or the evolution of the Roman imperial system—but for the Christian writers the center of interest was the supernatural—angels, devils, miracles, monks, saints, heaven and hell, eschatology and the day of judgment. Cosmos and history alike were viewed as the product of, and the arena for, the struggle of good and evil spirits. History came to have a vital meaning in its every phase, and all of it bore some relation to the ultimate triumph of good and the discomfiture of the forces of evil. Credulity, allegory and miracle-mongering replaced the canons of Thucydides and Polybius in the construction of historical narrative. Sacred history was given a position far higher than secular, and the history of the Jews was made the background for the synchronism and synthesis of the history of the past. From such premises Orosius composed the accepted universal history produced during the Patristic age, and Eusebius, Socrates, Sozomen, Theodoret and Cassiodorus compiled the standard histories of the rise and expansion of the Christian Church. With the coming of the early Middle Ages matters went from bad to worse after the passing of the vestiges of classical learning which had been preserved by the later pagans and the Patristic Christians. To the superstitions of the faithful Christian was now added the semi-barbarism of the confused "Dark Ages." [8]

So low did culture fall in the early medieval age that,

[8] Shotwell, *op. cit.*, Section V; F. C. Conybeare, *Myth, Magic and Morals;* C. J. H. Hayes, *Sources Relating to the Barbarian Invasions;* G. Krüger, *History of Early Christian Literature;* A. C. Flick, *Rise of the Medieval Church;* J. C. Ayer, *Source-Book for Ancient Church History;* P. deLabriolle, *The History and Literature of Christianity.*

except in the few areas where the classical learning maintained a lingering grip, the only type of historical writing was the slight, naïve and often irrelevant summary of yearly events jotted down by monks on their calendars of Easter dates. In time, however, these grew into more comprehensive and systematic Annals, and soon enterprising Chroniclers appeared to produce the general history of some area through a union of the more important Annals in the local monasteries. With such Chroniclers as Otto of Freising (1114–58) and Matthew Paris (d. 1259) historical literature attained the level of the pre-Herodotan age in Greece. As this branch of learning, like most others, was entirely in the hands of Churchmen, the supernaturalism of the Patristic age was carried over into the medieval *Weltanschauung,* often in a more grotesque form than it had appeared in the period of the Fathers. As was true of learning in general in the medieval period, the highest achievements in historical writing and interpretation were the product of Arabic historians, such as Athir and Ibn Khaldun.[9]

The Humanists in the period of the so-called "Renaissance" brought many salutary influences to bear upon historical writing. While in most cases pious in their outlook, their piety was of a wider type than that of the medieval Churchmen. They gave up Augustine's summary designation of all classical literature as the product of the City of the Devil, and some contended that the appellations St. Socrates and St. Cicero were not inappropriate. In other words, they tended to abandon the sharp distinction between the supernatural and the

[9] V. Balzani, G. Masson, and J. Gairdner, *Early Chroniclers of Europe;* W. Wattenbach, *Deutschland's Geschichtsquellen im Mittelalter;* H. O. Taylor, *The Medieval Mind;* R. Flint, *The History of the Philosophy of History* (1894), pp. 79–87, 158–75; R. A. Nicholson, *A Literary History of the Arabs;* J. W. Jeudwine, *The Manufacture of Historical Material.*

mundane and showed some power of appreciating the secular culture of pagan antiquity, particularly in its literary phases. This was a distinct gain for historical writing in many ways. It restored some perspective in regard to the history of antiquity, which had been well-nigh totally destroyed by Orosius and the Patristic chronographers. It stimulated interest in the recovery of pagan manuscripts, among them many of an historical character, and afforded training in the beginning of the critical editing of manuscripts. Finally, it gave assurance of an improvement in literary style, through the imitation, often servile and stupid, of the great pagan stylists. In the writings of Machiavelli, Guicciardini, Pufendorf, Buchanan, Clarendon and Mariana, literary history attained the level of achievement earlier reached by Thucydides, Sallust, Livy and Tacitus, while the scholarship of Blondus, Beatus Rhenanus, Vadianus, Camden, Zurita, Scaliger and Casaubon rivalled or surpassed that of Timæus and Polybius and pointed towards Mabillon, Tillemont, Robertson, Gibbon, Niebuhr, Ranke, Monod and Stubbs.[10]

Unfortunately the laudable and healthy beginnings of the freedom of the historian from the distorting and paralyzing influences of supernaturalism, evident in the leading tendencies of humanism, were largely engulfed and shipwrecked in the remarkable religious revival of the sixteenth and early seventeenth centuries. The old dualistic contrast between pagan and Christian, which had been basic in the historical philosophy of the Fathers, was adapted to the dichotomy of Catholic and Protestant, who now came to symbolize the Cities of God and the Devil. The Magdeburg Centurians, John Foxe and John Knox endeavored to marshal the innumerable evidences of the cloven hoof in the history of Catholicism, while

[10] E. Fueter, *Histoire de l'Historiographie Moderne*, Livres I–II; E. M. Hulme, *Renaissance and Reformation.*

Baronius and Raynaldus defended the steadfast faith and piety, and the historical continuity and validity of the Catholic Church. The one calm and judicious history of the period of the Reformation and Counter-Reformation, that of Sleidanus, was buried under the fury of the contemporary religious controversy, and did not come to its own until its fundamental thesis was embodied in Professor Robinson's article on the Reformation in the eleventh edition of the *Encyclopedia Britannica*. It was not surprising that the dominant attitudes and aspirations of this age produced the orgy of superstition and persecution exemplified by the rise of the Jesuits, the bigotry of the Scottish and English Puritans, the intensified activity of the Inquisition, and the Witchcraft delusion.[11]

By a stroke of great good fortune, during the very period of the intellectual debacle just described, new forces and tendencies were emerging in European history which inevitably clashed with the revived supernaturalism, encouraged and promoted the development of intellectual poise and objectivity, and renewed interest in secular problems and achievements. These, as Professor Shepherd has so clearly shown, centered mainly about the increasingly diverse and extended contracts which were established between European states and oversea areas following the discoveries of Vasco de Gama and Columbus. The localism and provincialism of medieval Europe were disrupted, industry, wealth and commerce stimulated and augmented, intellectual curiosity aroused, cultural interests animated, scientific activities promoted, and a spirit of criticism developed in philosophy. The historians of the discoveries aided in giving Europeans some beginnings of a world outlook and a tolerant cosmopolitanism, and the critical tendencies of the philosophers

[11] Fueter, *op. cit.*, Livre III; J. H. Robinson, "The Study of the Lutheran Revolt," in *American Historical Review*, 1003; Preserved Smith, *The Age of the Reformation;* C. Beard, *The Reformation of the Sixteenth Century.*

and *littérateurs* found historical expression in the classic works of Voltaire, Hume, Robertson, Gibbon and their less emancipated and thoroughgoing disciples.[12]

The sceptical trends in rationalism were, however, so ably and fearlessly manifested in these and other writers that the movement outran the dominant characteristics of the age, and aroused a sharp reaction in the shape of romanticism, pietism and obscurantism. Romanticism assaulted the intellectualism of rationalism and the emphasis placed upon the potency of "reason" by this group. Its exponents opposed emotion to reason and posited a theory of causation which emphasized the importance of deep, obscure and mystically operating spiritual forces. As translated into historical writing, this impulse took the form of striving for stylistic effect, dramatizing of historical situations, reproduction of local color, and eulogy of great figures in history. Well known exponents of this type of historical work are Savigny, Gervinus and Leo, Chateaubriand, Thierry, Barante and Michelet, Walter Scott, Burke, Carlyle, Froude and Motley. Whatever their defects, this school of writers did much to add grace and originality to historical style and expression, thereby increasing the popularity of history, widened the scope of the historian's interest, and quite correctly emphasized the long historical processes lying back of the development of contemporary forms of culture and institutions. Yet its adaptability to the support of the pietistic and obscurantic trends in European thought during the century following 1770 will be apparent to all.[13]

The warm emotional element in romanticism, together

[12] Fueter, *op cit.*, pp. 361–81, 415–84; W. R. Shepherd, "The Expansion of Europe," in *Political Science Quarterly*, 1919; J. B. Bury, *History of the Freedom of Thought*, Chaps. iv–vii; W. E. H. Lecky, *The Rise and Influence of Rationalism in Europe*.

[13] Fueter, *op. cit.*, pp. 517–574; G. Brandes, *The Romantic School in Germany*.

with the emphasis on "national character" as the integrating factor in producing cultural development, made this movement in philosophy and historical narrative the natural threshold for the entry of ardent nationalism, a trend which was promoted by political events from 1775 to 1875. Intense enthusiasm, often accompanied by brilliant literary talents, was generated for the story of the national development of the several European national states. Consciously or unconsciously, such writers tended to magnify the racial capacity and historical contributions of their own peoples and to depreciate those of their neighbors. While nationalistic historiography did much to promote the collection and scientific editing of historical documents, and stimulated activity in producing notable achievements in narrative writing, it was probably more responsible than any other single force in creating the dangerous and fallacious chauvinism and national egotism which did so much to bring on the World War. The *Monumenta Germaniæ Historica,* the *Documents Inédits* and the *Rolls Series* represent the more notable collections of sources produced as a result of the enthusiasm for national history, while the works of Giesebrecht, Ranke, Droysen, Treitschke and Sybel, of Fustel de Coulanges, Raynouard, Fauriel, Michelet, Vandal, Lamartine and Martin, of Kingsley, Kemble, Freeman, Froude and Macaulay, of Bancroft, Lodge, Roosevelt and Fiske represent the more characteristic types of nationalistic historical narrative.[14]

The increased interest aroused in the pursuit of history by the romanticist and nationalistic historians led to a development of greater attention to the technique of historical research, and unquestionably made possible

[14] Fueter, *op. cit.*, pp. 563–73, 608–14, 668–87, 700–707; G. P. Gooch, *History and Historians in the Nineteenth Century,* Chaps. v, viii, xii–xiv, xvii–xviii, xxi; J. S. Bassett, *The Middle Group of American Historians;* J. F. Jameson, *The History of Historical Writing in America.*

the appearance of that critical historical scholarship which did much to chasten, even if it did not entirely escape from, over exuberant patriotism. Beginning with the work of Bolland and the Belgian Jesuits and Mabillon and the Parisian Benedictines from the seventeenth century onward, we find the basis gradually laid for the technique of the external and internal criticism of historical documents, which also involved the provision of the several indispensable "auxiliary sciences" of diplomatic, paleography, chronography, archeology and lexicography. Niebuhr and Ranke at the opening of the nineteenth century brought together the earlier contributions towards the establishment of critical historical methods, and are usually held to be the systematizers, if not the creators, of the modern scientific methodology in historical research and narration. By organizing archival research and by creating the historical seminar Ranke laid the basis for the inculcation and perpetuation of the ideals and methods of historical scholarship. Such representative works as those of Waitz, Jaffé, Ritter, Meyer, Koser, Delbrück, Stern and Harnack, of Mignet, Monod, Luchaire, Aulard, Seignobos, Lavisse, Rambaud, Delisle and Sorel, of Stubbs, Seeley, Gardiner, Bury, Oman, Round and Rose, of Henry Adams, Burgess, Lea, Osgood, Dunning, Channing, G. B. Adams, Haskins, Munro, Bourne and Rhodes illustrate the type of scholarly achievement which characterizes modern critical historiography.[15]

The defects of respectable historical scholarship must be sought not in its methods but in the range of its interests. The fact that critical history was the offspring of nationalistic political history doubtless accounts for the fact that the scholarly historians of the last half century have been for the most part absorbed in tracing the events relating to the history of the various states of the world, ancient and modern, and in revealing the

[15] Gooch, *op. cit.*, Chaps. vi–vii, xi, xix, xx, xxiii–xxv.

episodes and anecdotes connected with the careers of the leading gentlemanly figures in such history politicians, statesmen, diplomats and generals. When one reflects that Frederic Harrison was probably not exaggerating when he declared that nine-tenths of human achievement lay outside the ken of the political historian, it is easy to recognize the appalling inadequacy and narrowness of the respectable historical writing of the present-day. Most of those forces which make the civilization of Edison further removed culturally from that of Washington than that of the latter was from the age of Tut-ankhamen have been non-political, namely, those derived from critical thought, scientific research, technological advances and economic and social evolution. More than ever episodical and anecdotal political history now appears hopelessly anachronistic and futile in explaining the genesis of man and his works. As the remainder of this section will be devoted mainly to the account of the various modes of escape from the domination of history by pietism, obscurantism and the political fetish which have been thus far executed, no attempt will be made here even to catalogue the diverse aspects of the so-called "new history." [16]

III. THE RISE OF BIOLOGY, ANTHROPOLOGY AND ARCHEOLOGY, AND SOME PHASES OF THEIR REACTION UPON HISTORY

1. THE SIGNIFICANCE OF THE EVOLUTIONARY HYPOTHESIS FOR HISTORY

Among the various intellectual and scientific influences which have revolutionized the perspective, orientation and ideals of the dynamic historical writing and interpretation of the present day there is no doubt that the evolutionary

[16] J. H. Robinson, *The New History;* Fueter, *op. cit.*, pp. 708–751; Gooch, *op. cit.*, Chap. xxviii; F. S. Marvin, *The Century of Hope;* H. E. Barnes, *The New History and the Social Studies.*

hypothesis must be assigned the first and foremost place. And our notion of evolution must transcend the biological limitations of Darwinism and comprehend universal evolution in the Spencerian sense. As a general concept the evolutionary hypothesis merely insists that all portions of the known cosmos, great or small, have been produced by naturalistic causes which bring about both progress and regression. It also implies, in agreement with the ancient hypothesis of Heracleitus, that change is the great basic principle of the cosmos. As such, the evolutionary hypothesis is in no way involved in theological controversy. It rests upon no dogmatic position as to the part taken by God in this process of cosmic development and in no way pretends to have received from him any revelation as to his purposes in bringing into being, or altering the nature of, the multitudinous celestial bodies which make up the cosmic equipment. It may well be that this view of cosmogenesis possesses infinite significance for those who concern themselves with the supernatural, but this analysis of the teleological importance of the evolutionary hypothesis is a problem for the philosopher and theologian and not for the biologist or historian.[17]

The theory of evolution is, of course, by no means a novel phase of the content of the thought-stream of western civilization. Its history is as old as that of reflective thinking itself, beginning with the pre-Socratic philosophers of ancient Greece. Not even Herbert Spencer himself stated more adequately the general concepts and implications of cosmic evolution than did Lucretius in the age of Cicero, and even he admitted that his exposition was but an inferior version of the doctrines of his master who lived three centuries earlier. Certain approxi-

[17] See H. Spencer, *First Principles*, Part II; J. T. Merz, *History of European Thought in the Nineteenth Century*, Vol. II, Chap. ix; A. D. White, *History of the Warfare of Science With Theology*, Vol. I, Chap. 1; J. Dewey, *Reconstruction in Philosophy*.

mations to evolutionary views persisted during the medieval period, and a general revival of this interpretation of nature followed the rise of rationalism and science during the seventeenth and eighteenth centuries, but this line of thought gave rise to little controversy until it included our planet and man himself within the scope of its generalizations. Spencer elaborated the thesis of universal evolution and showed its varied pertinent applications to the whole range of human intellectual activity. Darwin devoted himself primarily to biological phases of the problem and indicated that the evidence for man's development from lower forms of organic life was far more convincing than that which could be adduced for the orthodox view of a special and recent creative act. His thesis was warmly espoused and effectively defended and disseminated by such scholars as Haeckel, Huxley, Romanes and Wallace. The cultural and historical implications of the evolutionary notions were expounded by writers of the type of J. M. Robertson, W. E. H. Lecky, Karl Lamprecht, J. W. Draper, Andrew D. White and Henry Adams. So effective have been their efforts that the concept of evolution is probably the most significant of the working-hypotheses in our present cultural equipment and intellectual life, doubted and opposed only by such well-meaning but semi-illiterate Fundamentalists as William Jennings Bryan, John Roach Straton and Jasper Cortenus Massee.[18]

Even the major aspects of the significance of the evolutionary hypothesis for history are numerous and impressive. Perhaps the most striking is its denial of the philosophy of transcendentalism. Plato felt that his æsthetic nature, as well as his epistemology, was outraged

[18] J. W. Judd, *The Coming of Evolution;* H. F. Osborn, *From the Greeks to Darwin; Evolution in Modern Thought* (Boni and Liveright Modern Library); A. G. Keller, *Societal Evolution;* T. V. Smith, "The Bases of Bryanism," in *Scientific Monthly,* May, 1923.

by the conception of a shifting reality, but such seems to be the nature of the situation. If there is anything in the realm of nature which is perfect, final and changeless, its existence has not yet been revealed to any type of scientist. Paradoxically enough, it seems that the principle of change is the only changeless and invariable cosmic principle. This view of the matter is even more disconcerting to the piously inclined when its implications are transferred from the realm of the natural to that of the social. The thought that rocks and plants may change their character is less impressive to many than the fact that human institutions, opinions and beliefs are evolutionary in character and relative in nature, permanence and value. The notion that our particular convictions with respect to God, Biblical inspiration, the validity and permanence of monogamy, democracy, the protective tariff and unlimited fecundity may be of purely human derivation, are the exact opposite of the opinions held on these subjects by other creatures who are as notable products of God's favor as ourselves, and may very well be wholly mistaken is to many appalling, but such are the unavoidable conclusions which the evolutionary doctrine forces upon us. Somewhat disconcerting, likewise, is the genetic point of view, as opposed to the earlier view of providential causation. It now appears that all phenomena of which we at present have any knowledge are the product of natural causes working in an evolutionary manner. One stage is the outgrowth of another. Given a set of forces operating upon concrete materials under certain conditions there will always be an invariable and definite outcome. Man may, to some degree, alter the materials and the circumstances upon which and under which natural forces operate, but he is subject to the result of the collaboration of natural factors and the product of his own intellect, and cannot sink safely back

upon the regressive delusion that somehow God will safely care for him. If, to some this is disconcerting, to others it is a dynamic and appealing challenge to human ingenuity and initiative.[19]

The immediate application of evolutionary biology to historical problems is most pertinent in the fields of genetic psychology, genetics and eugenics. G. Stanley Hall has shown in impressive works that the mind must be viewed as an evolutionary product, quite as much as the body, and has thus made genetic psychology the natural introduction of intellectual history. The older Christian and democratic notions were erected upon the belief in the essential equality of all men. Biology and psychology have proved that there is no more certain or disastrous error than this. As change is the fundamental principle of the cosmos, so variegation and differentiation is the primary principle of organic life, including man. Difference in capacity for potential achievement, then, rather than identity of ability, is the most conspicuous fact about humanity, and also one of the most frequently ignored points in current social and historical philosophy. While one must be on his guard against the excessive emphasis of the Galton-Pearson school upon purely biological factors at the expense of the potency of environmental and educational influences, yet one of the two great factors in civilization and progress is physical excellence in the population, and there is no evidence of a strong people or an enduring civilization in the past which has been based upon the ascendency of inferior and deteriorating physical types in the population. In fact,

[19] J. Dewey, *Reconstruction in Philosophy; The Influence of Darwin on Philosophy;* W. G. Sumner, *Folkways;* G. Stanley Hall, "The Message of the Zeitgeist," in *Scientific Monthly,* August, 1921; J. H. Robinson, *The New History,* Chap. viii; *Mind in the Making,* Chap. viii; H. Adams, *The Degradation of the Democratic Dogma;* K. Pearson, *The Grammar of Science.*

it is apparent that one significant cause for the cycles of civilization and the rise and fall of cultures is the differential birth-rate, whereby the abler ruling classes decrease in fertility and leave the matter of population increase to the inferior lower classes, thus creating a process of biological counter-selection. No historian can today be regarded as intellectually and professionally well-equipped who is ignorant of the biological philosophy of Francis Galton and Karl Pearson.[20]

Important as biological factors may be in human society, attention must be called to the danger of attempting to transfer biological concepts directly to social situations and to assume that the processes of observed importance in the organic life of the individual apply without qualification or reservation to society. That there are interesting analogies between the organism and society cannot be denied, though these may have little more practical significance than the analogy between the atom and a universal system. Further, there may be some biological processes which have their important application to the functioning of human society, but the distinct differences in these two situations must be previously calculated and allowed for before the propriety of the analogy can be admitted. Probably the most serious error which has resulted from this effort to apply biological concepts directly to social processes has been the assumption that war plays the same constructive part in social and cultural evolution that the struggle for existence does in the realm of organic life. That this was ever fully the case is doubtful, and it is an absurdly grotesque doctrine when

[20] G. E. Partridge, *The Genetic Philosophy of Education;* G. S. Hall, *Adolescence;* F. H. Hankins, "Individual Differences and Democratic Theory," in *Political Science Quarterly,* September, 1923; A. M. Carr-Saunders, *The Problem of Population;* S. J. Holmes, *The Trend of the Race;* K. Pearson, *National Life from the Standpoint of Science;* W. Schallmayer, *Vererbung und Auslese im Lebenslauf der Völker.*

applied to war under modern conditions and in the present cultural setting.[21]

The evolutionary hypothesis has been influential in shaping the orientation of certain types of scholars in the historical field. Notable in this respect have been the works of Spencer, Lecky, Leslie Stephen, Allen, Lang, Drummond, Schurman, Kidd, Hobhouse, Fiske and Sutherland in the field of the history of religion and ethics, and the contributions of Post, Maine, McLennan, Bagehot, Letourneau, Kovalevsky, Ritchie and others to the history of law and politics. In general, however, the great impress which the evolutionary hypothesis has left on history has been to fix upon the historian's mind the perception of the genetic nature of the social process, and to give him a firm basis for a sound theory of progress.

2. THE ANTHROPOLOGICAL CONTRIBUTION TO HISTORY

The discussion of the importance of the evolutionary hypothesis for history leads directly to the consideration of the relation of anthropology to the newer or dynamic history. In fact, it is through the various phases of anthropology that evolutionary concepts have made some of their most significant contacts with man and culture. As Professor Marett has very appropriately said:—[22]

> Anthropology is the whole history of man as fired and pervaded by the idea of evolution. Man in evolution—that is the subject in its full reach. Anthropology studies man as he occurs at all known times. It studies him as he occurs in all known parts of the world. It studies him body and soul together—as a bodily organism, subject to conditions operating in time and space, which bodily organism is in intimate relation with a psychic life, also subject to those same conditions. Having an eye to such conditions from first to last, it seeks to plot out the general series of the changes, bodily and mental together, undergone by man in the course of his history. . . . Anthropology is the child of Darwin. Darwinism makes it possible.

[21] F. W. Coker, *Organismic Theories of the State*, pp. 115–90; A. G. Keller, *Societal Evolution;* L. Gumplowicz, *Outlines of Sociology;* G. Nicolai, *The Biology of War.*

[22] R. R. Marett, *Anthropology*, Chap. i; Cf. F. Boas, *Anthropology* (Columbia University Lecture).

Reject the Darwinian point of view and you must reject anthropology also. . . . With Darwin, then, we anthropologists say: Let any and every portion of human history be studied in the light of the whole history of mankind, and against the background of the history of living things in general. It is the Darwinian outlook that matters. None of Darwin's particular doctrines will necessarily endure the test of time and trial. Into the melting-pot must they go as often as any man of science deems it fitting. But Darwinism as the touch of nature that makes the whole world kin can hardly pass away. At any rate, anthropology stands or falls with the working hypothesis, derived from Darwinism, of a fundamental kinship and continuity amid change between all the forms of human life.

The significance of anthropology for history is obviously great and varied. First and foremost is the fact that it alone can furnish that type of knowledge about the early development of man which is indispensable to any intelligent study of the so-called ancient history. A generation ago it was customary to open books on ancient history with a discussion of the separation of the sons of Noah and the repeopling of the earth due to the heroic procreative efforts of these worthies and their descendants, despite the fact that the same book might refer to the fact that ancient Egyptian civilization had reached so high a level by 4241 B.C. that a solar calendar had been devised—though this was no less than 237 years before the creation of Adam. Such hopeless inconsistencies and confusion could only be removed by entirely wiping away the Hebraized chronology of Julius Africanus, Eusebius and Jerome, and taking as the background of ancient history the facts well established by anthropology relative to the infinitely long period of human development prior to the age of literary history, and to the basic aspects of human culture and group behavior patterns which were developed in this preliterary era. Not only does this approach to history remove the strange and mysterious elements from the "dawn of history;" it also makes it intelligible. There is no break between the so-called "prehistoric" and historic periods. There has been a slow and steady,

though not necessarily uniform or unbroken, development from the appearance of mankind upon the planet a half million years ago. The art of writing is the only achievement separating the historic from the "prehistoric," and this is but one phase of human cultural achievement. It was not until centuries after its origins that its use was sufficiently perfected to exert any considerable influence upon human culture and conduct.[23]

When one attempts to make an inventory of cultural progress before the invention of the art of writing—including such things as the varied technique of hunting and fishing, the domestication of animals, the origins of agriculture, the provision of the foundations of the textile industry in spinning and weaving, important progress in art, the origins of settled life, artificial habitats, highly developed forms of social coöperation, the definite appearance of private property in chattels and perhaps in land, and some considerable advances in government and law—he begins to comprehend the vital importance of the cultural heritage we have received from the preliterary period, and the vast significance of what was omitted from history textbooks only a generation ago.[24] The reaction of the progress of anthropology upon history in clearing up the background of the period of literary history has been notable. Whereas one of the greatest of the historians of antiquity in the last generation, Theodor Mommsen, had never heard of the glacial age until towards the end of his life, even the excellent elementary textbooks of today on ancient history, like those by Professors Webster and Breasted, contain as an introduction admirable chapters summarizing the cultural progress in the preliterary period, while a great monu-

[23] J. H. Breasted, *Ancient Times*, Chap. i; J. L. Myres, *The Dawn of History; Cambridge Ancient History*, Chaps. i–ii.

[24] See the reference in footnote 5 above, and H. W. Wilder, *Man's Prehistoric Past;* and J. de Morgan, *Prehistoric Man.*

mental work, such as that by Edouard Meyer,[25] devotes a whole preliminary volume to anthropology. The *Cambridge Ancient History* opens with two admirable chapters on the preliterary period. A popular appreciation of the importance of this preliterary background of history was secured through the recent work of H. G. Wells, *The Outline of History,* which achievement was in itself a sufficient justification for this enterprise.

Another reason for the value of a knowledge of anthropology to the historian resides in the fact of the survival of primitive institutional life and psychic traits in our present-day society and population. There is not a single contemporary institution that does not have its roots in primitive origins or that can be accurately understood and interpreted without an adequate knowledge of its genesis.[26] Our institutions dealing with religion, property, sex, government, law and ethics have not only been erected on primitive foundations, but contain within their present-day form and expression a large admixture of primitive content. If we properly understood these facts, there would be little ground for chauvinism, cultural arrogance or conservatism. They would tend to convince us of the lack of that uniqueness, divine revelation, perfection and permanence with which we are wont to clothe and adorn our institutions. A perusal of Hutton Webster's *Rest Days,* for example, should be more disconcerting to an intelligent exponent of Sunday observance legislation than any amount of theological argumentation. We cannot reconcile the patterns of mental behavior of a Bryan, Lusk, Palmer, Straton or Stanwood Menken with a conscientious cultivation of books like Sumner's *Folkways,* or Hobhouse's *Morals in Evolution.*

[25] *Geschichte des Altertums.*

[26] C. Wissler, *Man and Culture;* and A. M. Tozzer, *Social Origins and Social Continuities* are particularly instructive on this point.

Especially is most of the ceremonial of contemporary life of primitive derivation. One could scarcely suggest more entertaining and edifying, and at the same time more disconcerting, reading than such an exposure of cultural transmission and vestiges as that contained, for example, in the third volume of Herbert Spencer's *Principles of Sociology.*

Nor are we free from psychic traits which, with some variations and transformations, we share with savages and barbarians. Among these are the tendency to jump at conclusions, to see more in situations than actually exists, to think symbolically, to look at certain phases of experience in a highly mystical manner, to trust to the efficacy of words and phrases, and the vast mass of modern perpetuations, variations and readaptations of primitive belief in mana, animism, totemism, fetishism, taboos and naïve superstitions. No general categorical statement can be made about the degree to which primitive thought survives in the modern period, because its perpetuation varies greatly in different phases of contemporary culture and cerebration. In science we have departed rather completely from the primitive outlook and modes of thinking, while in regard to religion the orthodox thoroughly retain a pseudo-rationalized and enormously elaborated primitive mysticism and supernaturalism. The primitive element in other phases of our thinking varies between these two extremes, as, for example, in politics where we rely upon rhetoric, which was but an Hellenic elaboration of shamanistic incantations and formalistic deliverances of chieftains. An understanding of this fact of primitive survivals in our contemporary mental traits and psychic interpretations is of particular value for workers in the field of intellectual history. Anthropology thus links up genetic psychology with the intellectual development of mankind, and books like those

of Lévy-Bruhl and Frazer (for concrete illustrations of primitive thinking) constitute as much the logical threshold of intellectual history as those of Osborn, Tyler, Déchelette and Wilder the proper introduction to the history of human material culture.[27]

An extremely important contribution to the technique of historical analysis has been put at the service of history by the anthropologists, namely, that of interpreting the evolution of human culture and of explaining its similarities and parallels, and its variations and divergencies. Of course, this technique has no pertinence for the conventional student of history, who is interested only in "unique" episodes and anecdotes, but it is indispensable to any historian who would be scientific in treating the history of civilization and culture. Both similarities and differences in the cultures of various areas have attracted observers from the time of Herodotus and earlier. The similarities have created the greatest problems in explanation and interpretation, even if they have excited less interest than the differences, because variations seem to be readily understandable on the basis of diversity of race, geographic environment, ethnic contacts and stages of cultural development. The first effort of cultural anthropologists to explain these phenomena of cultural parallelisms and identities was identified with the work of such men as Spencer, Tylor, and particularly Morgan and Letourneau. Working on the basis of the theory of Bastian with respect to the unity of the human mind, the doctrine of direct and deterministic influence of geographic environment upon culture, and the evolutionary hypothesis of uniform and orderly development of organisms and institutions from the simple to the complex, these writers constructed an evolutionary scheme of

[27] J. H. Robinson, *Mind in the Making*, Chap. iii; L. Lévy-Bruhl, *Primitive Mentality*; A. A. Goldenweiser, *Early Civilization*, Part III.

institutional growth in a largely rationalized and *a priori* manner, and then devoted themselves to discovering concrete information to substantiate this hypothetical skeleton or outline of social evolution. As a general proposition this school maintained that cultural identities were due to internal causes rather than external contacts between groups, thus laying stress upon the processes of independent development and human inventiveness, even though these might be rather sharply conditioned by external physical surroundings and certain definite traits of the human mind.[28]

A theory taking the directly opposite view was suggested by E. B. Tylor, anticipated by Ratzel, and definitely developed by Graebner, Elliot Smith, Foy, Ankermann, W. Schmidt and Rivers. This group held that cultural similarities and identities were due wholly to the contact of groups and the resulting diffusion of culture. In order to maintain their thesis some of the more extreme members of this school, such as Graebner and Smith, have contended for diffusion between areas separated by such impassable distances and obstacles as ancient Egypt and Central America in the period before oceanic navigation had been mastered. In spite of some exaggerations, however, this school has made very valuable suggestions as to the migrations of cultures and institutions, which are especially significant in aiding the investigation of the dissemination of material culture.[29]

[28] This subject is well discussed by C. Wissler, *Man and Culture*, Chap. vi; Goldenweiser, *Early Civilization*, pp. 20–27; F. Boas, *Mind of Primitive Man*, Chaps. vi–viii; A. L. Kroeber, *Anthropology*, Chap. ix.

[29] Perhaps the best moderate analyses of the process of diffusion are contained in A. L. Kroeber, *Anthropology*, Chap. viii; and C. Wissler, *Man and Culture*, Chaps. vii–ix. The extreme statement is in F. Graebner, *Die Methode der Ethnologie;* and Elliot Smith, *Migrations of Early Culture;* see A. A. Goldenweiser, "Four Phases of Anthropological Thought," in *Publications of the American Sociological Society*, 1921, pp. 55–59.

More satisfactory than a one-sided exaggeration of either the doctrine of independent development or of diffusion is the historico-psychological line of analysis which has been developed by Professor Boas and his students in this country, and approximated to some considerable degree by such anthropologists as Marett and Ehrenreich in Europe. This group has no presuppositions or assumed hypotheses, but aims to investigate the actual facts with respect to the nature and genesis of any cultural complex. As a result, they have found that in most cases both independent development and diffusion have coöperated in creating the majority of cultural situations, though the alacrity with which one cultural group will adopt contributions from another varies widely according to the particular phase of culture, borrowing most readily material culture and most reluctantly religious beliefs and practices. The cultivation of this method has led to a complete revision of the earlier theories concerning social evolution. It has shown many of the alleged identities to be merely superficially such, and has further proved that real identities do not prove similar antecedents or exactly the same subsequent developments. In other words, this method has thoroughly upset the older views concerning the orderly and uniform nature of institutional evolution, as summarized in such work as *Ancient Society* by Lewis H. Morgan. Infinite diversity seems to be the rule of nature as expressed in social development, however much conformity may be insisted upon within any group.[80]

It should be evident, then, that no one can be regarded as adequately equipped to deal with the fields of institu-

[80] Goldenweiser, *loc. cit.*, 59–69; and "The Principle of Limited Possibilities in the Development of Culture," in *Journal of American Folklore*, 1913; R. H. Lowie, "On the Principle of Convergence in Ethnology," *Ibid.*, 1912. The most impressive proof of the diversity of primitive culture is presented in Lowie, *Primitive Society*.

tional and cultural history who has not mastered the type of material available in such books as Boas's *Mind of Primitive Man,* Wissler's *Man and Culture,* Kroeber's *Anthropology,* Lowie's *Culture and Ethnology,* and *Primitive Society,* Goldenweiser's *Early Civilization* and *Social Evolution,* Ogburn's *Social Change* and Muller-Lyer's *History of Social Development.* A great service has been rendered to the desirable objective of linking up anthropology with dynamic history by Professor A. L. Kroeber, who, in the last two chapters of his excellent general work on anthropology, has executed a most suggestive survey of human history from the paleolithic age to contemporary civilization, interpreted in the light of the anthropological approach. While there have been a large number of philosophical historians such as Draper, Spengler and Cheyney who have offered various hypothetical laws regarding human development or decline, the only school that has made any serious contribution to this problem is that of Lamprecht, but many feel that his cultural history contains in its methodological assumptions much the same errors that characterized the Morganian anthropology. Perhaps the only historians who have mastered this newer technique have been James Thomson Shotwell and F. J. Teggart.[31]

In regard to such matters as race and religion anthropology has done much to aid the historian in freeing himself from chauvinism and bigotry. A generation ago even the most objective and distinguished of historians were laboring under the spell of Gobineau with his grotesque theories of the superiority of the white race and of the Aryan branch within the white race. With the possible exception of the obsession of national superiority,

[31] See Goldenweiser's review of Teggart in *American Anthropologist,* 1920. Teggart has thus far made no use of his methodological insight.

which grew out of it in large part, there has probably never been an influence more disastrous to historical truth and objectivity than the mythology connected with the notion of the definite and determinate nature of race and the sure proof of superiorities and deficiencies flowing therefrom. Modern critical physical anthropology has shown the elusive nature of the very concept of race and the difficulties of discovering any fixed and invariable physical criteria of adequate significance to identify it.[32] It has proved the hopeless intermixture of the subdivisions of the white race, as well as the wide degree of diversity of types within each of these. Moreover, it has shown that, far from there being a lordly and superior Aryan race, there never has been any such thing as an Aryan race of any sort.[33] Further, Professors Boas and Chamberlain have shown that differences in cultural attainment on the part of various races can be adequately explained without bringing in the hypothesis of differences in innate racial capacity, and have indicated the difficulty of proving the comprehensive superiority of races when the element of adaptation to the native environment is taken into consideration.[34] In short, the problem of race is at present so vague, confused and indeterminate that it not only should, but must be ignored by the historian, whatever psychology and biology may later bring out of this chaos in the way of ascertainable and verifiable facts. The following summary by Karl Pearson

[32] Much the best attempt to reduce the problem of race to definite physical criteria is contained in R. B. Dixon, *The Racial History of Man*, especially the Introduction. The limitations on any such effort in the present state of our knowledge are well stated in a review of the book by Ales Hrdlicka in *American Historical Review*, July, 1923, pp. 723-726. See also E. Pittard, *Race and History*.

[33] W. Z. Ripley, *The Races of Europe*, Chaps. vi, xvii.

[34] F. Boas, *The Mind of Primitive Man*, Chap. i; A. F. Chamberlain, *Proceedings of the American Antiquarian Society*, 1903, pp. 91-126; and *Journal of Race Development*, 1911, pp. 458-502. See also A. L. Kroeber, *Anthropology*, Chap. iv.

of Darwin's racial ancestry is an impressive proof of the futility of the racial hypothesis in history.[85]

Too often is this idea of close association of mentality and physique carried into the analysis of individuals within a human group, *i.e.*, of men belonging to one or another of the many races which have gone to build up our population. We talk as if it was our population which was mixed, and not our germplasm. We are accustomed to speak of a typical Englishman. For example, Charles Darwin; we think of his mind as a typical English mind, working in a typical English manner, yet when we come to study his pedigree we seek in vain for "purity of race." He is descended in four different lines from Irish kinglets; he is descended in as many lines from Scottish and Pictish kings. He has Manx blood. He claims descent in at least three lines from Alfred the Great, and so links up with Anglo-Saxon blood, but he links up also in several lines with Charlemagne and the Carlovingians. He sprang also from the Saxon Emperors of Germany as well as from Barbarossa and the Hohenstaufens. He had Norwegian blood and much Norman blood. He had descent from the Duke of Bavaria, of Saxony, of Flanders, the Princes of Savoy, and the Kings of Italy. He had the blood in his veins of Franks, Alamans, Merovingians, Burgundians, and Longobards. He sprang in direct descent from the Hun rulers of Hungary and the Greek Emperors of Constantinople. If I recollect rightly, Ivan the Terrible provides a Russian link. There is probably not one of the races of Europe concerned in folk-wanderings which has not a share in the ancestry of Charles Darwin. If it has been possible in the case of one Englishman of this kind to show in a considerable number of lines how impure is his race, can we venture to assert that if the like knowledge were possible of attainment, we could expect greater purity of blood in any of his countrymen? What we are able to show may occur by tracing an individual in historic times, wherever physical barriers did not isolate a limited section of mankind? If there ever was an association of definite mentality with physical characters, it would break down as soon as race mingled freely with race, as it has done in historic Europe. Isolation or a strong feeling against free inter-breeding—as in a color differentiation—could alone maintain a close association between physical and mental characters. Europe has never recovered from the general hybridization of the folk-wanderings, and it is only the cessation of wars of conquest and occupation, the spread of the conception of nationality and the reviving consciousness of race, which is providing the barriers which may eventually lead through isolation to a new linking-up of physical and mental characters.

Especially is it necessary to be wary of such preposterous products of the neo-Gobinesque literature as Madison Grant's *Passing of the Great Race*, and the crop of

[85] *Scientific Monthly*, November, 1920, pp. 435–6.

debased imitations. This is an even worse expression of the racial fallacy than the Aryan lore of Max Müller and his generation.[36] On the other hand, physical anthropologists and students of population from the biological standpoint have called attention to the importance of differences of ability on the part of members of the same race and group, and have indicated that significant results for history and culture may inhere in such processes as a differential birth-rate, racial mixture and emigration.[37]

Likewise, anthropology has done much to lessen bigotry in dealing with problems of the history of religion. The anthropological approach to the analysis of religious origins has shown the remarkable similarity of the raw material of religion in reaction to the supernatural the world over among all peoples, the general uniformity of psychic behavior patterns associated with religious phenomena, and the large amount of identity and unity in the basic core of religious institutions and ceremony, however they may differ in external form and expression. This technique of analysis has been applied to both Judaism and Christianity by such students as Robertson Smith, Wellhausen, Hubert and Mauss, Gardner, Conybeare and others, and it has been shown that no claim for their historical or cultural uniqueness can be supported by the facts in the case. In other words, anthropology applied to the study of religious phenomena gives that long perspective and comparative point of view which, in combination, furnish the best possible basis for tolerance and understanding. And if anthropology shows

[36] See R. H. Lowie, "Psychology, Anthropology, and Race," in *American Anthropologist*, July–September, 1923. A thorough study of the development of the racial hypothesis is contained in T. Simar, *Etude critique sur la formation de la doctrine des races* (Brussels, 1922). A more critical survey is to be found in F. H. Hankins, *The Racial Basis of Civilization*.

[37] See references in footnote 20 above; and E. M. East, *Mankind at the Cross-Roads*.

bigotry and arrogance as between Jew and Gentile, Buddhist, Mohammedan and Christian to be without foundation, how much more absurd appear the quarrels between Catholic and Protestant, Methodist and Presbyterian or Northern and Southern Baptist. Works like Lowie's *Primitive Religion,* Marett's *Threshold of Religion,* Reinach's *Orpheus,* Carpenter's *Comparative Religion,* and Moore's *History of Religion* furnish the best possible background for one who is to pursue the history of the religious institutions of any particular people.[38]

3. ARCHEOLOGY AND HISTORY

The remaining phase of anthropology which has been of great service to dynamic history is the so-called "prehistoric" archeology, which has opened up to us that great period of preliterary history, far longer in duration than the age of written history and nearly as important in basic achievements. Cultivated from the days of Thomsen and Boucher de Perthes to Déchelette and Schmidt, this is perhaps the most exact and impressive branch of "prehistory." In a very real sense it serves as the concrete bridge between evolutionary biology and human culture by tracing the material evidence for man's gradual passage from the simian to the distinctly human stage of physique and culture. In the first place, "prehistoric" archeology offers definite concrete proof of the long existence of human life and culture before the origins of written records. Whatever the actual nature of man's

[38] The best analysis of the recent literature on the problem of religion and magic from the anthropological point of view, with an admirable selected bibliography, is to be found in Goldenweiser, "Magic and Religion," *Psychological Bulletin,* March, 1919. The most brilliant attempt of an historian to assimilate this literature is contained in J. T. Shotwell, *The Religious Revolution of Today.* An interesting anthropological approach to Christian origins is contained in Percy Gardner, *Exploratio Evangelica;* and F. C. Conybeare, *Myth, Magic and Morals.*

derivation or creation, archeology proves that not even the most heroic allegory or exegesis can harmonize the Christian chronology with the demonstrable fact of the remains of human artifacts of an antiquity of more than a hundred thousand, if not a quarter of a million, years. The quibbling and shuffling of authors like McCann over differences of opinion of archeologists concerning the age of a particular skeleton or cultural site is even more absurd than the average scholastic casuistry. In the second place, as has been made clear above through the brief catalogue of cultural contributions in the preliterary period, archeology produces an impressive exhibit of the cultural equipment of man at about the time usually assigned to the creation of Adam, an equipment which was not greatly expanded until the Industrial Revolution. It is prehistoric archeology, then, which has supplied, for the most part, that type of information which concretely makes anthropology the "threshold of history," and books like those by the Quennells constitute the ideal introduction to the history of society and material culture, and remove all of the element of mystery and confusion from the "dawn of history." [89]

The contribution of the archeologists to a better understanding of historic eras is far better known. A century ago our knowledge of Oriental history was limited to certain vague and dubious references in the Old Testament, Herodotus, Josephus and a few antique chroniclers. Now we have a definite and reasonably complete record of the civilizations of Egypt, Mesopotamia, Persia, Anatolia, Syria, the Ægean and Crete, the great majority of which has been due to archeology, and all of which has waited in part upon archeological excavations. In the case of Crete archeology is our sole guide, as scholars

[89] See A. C. Haddon, *History of Anthropology*, Chaps. vii–ix. See references in footnote 5 above.

have not yet learned to decipher the Cretan script. While we can rely rather more upon literary sources in classical than in Oriental history, most of our accurate knowledge of Greek history before Herodotus and of Roman history before 390 B.C. depends upon archeological work, and the writing of the Etruscans has never been read. One of the latest, and perhaps the least known of the services rendered to history by archeology has been the work done on Celtic archeology by Déchelette. This has shown the high civilization of Gaul in Cæsar's time, and rescued Gaul from the obscurity into which it had fallen as a result of the slanders of Cæsar and the contempt of the Teutonic historians. The intelligent approach to the history of western Europe is now seen to be through an investigation of the old Celtic civilization north of the Alps, which endured from the age of the Lake Dwellers to the days of Clovis, and made innumerable contributions to the cultural and institutional history of Europe. American archeology has given us our knowledge of the native Indian culture though this is of less historic value, because of the intrusion of the European culture and the failure of the indigenous culture to develop further.[40]

IV. THE NEWER PERSPECTIVE OF HISTORICAL DEVELOPMENT

Perhaps the most impressive and significant result of the appropriation of biology and anthropology for history is the new perspective of historical development, namely, the change necessitated by the newer approach to history in our interpretation of the past and the future of

[40] Gooch, *op. cit.*, Chaps. xxiv–xxv; *Cambridge Ancient History*, Vol. I, Chap. iii (see bibliography, pp. 625–628); V. I. Modestov, *Introduction à l'histoire romain;* T. Rice, Holmes, *Julius Cæsar's Conquest of Gaul*, especially Chap. i; A. L. Guérard, *French Civilisation to the Close of the Middle Ages*, Part I; J. Déchelette, *Manuel d'archéologie préhistorique, celtique et gallo-romaine;* C. Jullian, *Histoire de Gaule;* C. Wissler, *The American Indian.*

man and human society.[41] The authoritative and accepted view of human origins, even among scholars, down to our generation was that systematized by Archbishop Ussher in his *Annals of the Old and New Testaments,* published in 1650, and still further refined shortly after by Vice-Chancellor Lightfoot of Cambridge, who held that man made his appearance in response to a definite creative act on Friday, October 28, 4004 B.C., at 9 A.M. Man had, thus, a definite providential origin, and his surroundings and equipment were likewise a product of God's labors and foresight. The numerous forms of animal life had been created either on Thursday afternoon or had arrived synchronously with Adam on Friday morning. After Adam had completed his first task in Paradise, that of naming his animal friends, God created for him a female mate, and they dwelt together for a time in the only period of unbroken and undisturbed felicity yet granted by divine providence to the human race. Upon this unruffled and peaceful existence the Devil, according to the strict Hebrew account a radical pomologist and dietitian, or, following the Augustinian tradition, a sexologist, intruded. He cleverly intrigued Adam's consort; our simple-minded pristine parent was no match for a combination of diabolical ingenuity and female seductiveness, and the human race was forthwith brought under the curse of original sin. Adam and Eve were driven from the garden, and the human race would have perished but for God's illogical solicitude in saving one family from the Deluge and choosing a branch of this family as subjects for his special, if somewhat dubious, guidance and direction. The whole picture, then, provided by this theory of human origin and development was one which

[41] The convincing demonstration and effective popularization of this point is the one real contribution in H. G. Wells' *Outline of History.*

put the period of perfection at the beginning instead of at the end of man's earthly sojourn. The best state of man was in the past rather than the future. Not only was there no hope of attaining a more happy state than that enjoyed by Adam and Eve in Eden; there was no prospect of even rivalling it. Man could secure or surpass this blessedness only in the Kingdom of Heaven, but never in the Kingdom of Man. We do not need specifically to recall the horrors of the Patristic or Calvinistic anthropology to comprehend the fact that this provided a most depressing outlook as to human and social improvement and the ultimate fate of the human race. In fact, ecclesiastics pointed out that this was a peculiarly beneficent phase of the divine economy and strategy. The more hopeless and intolerable were earthly conditions, the more enthusiasm would be generated for the promotion of the cause of the Kingdom of Heaven.[42]

The perspective and outlook provided by biology and anthropology is exactly the reverse of this. The new viewpoint rests upon the concept of the immensity of the period of the demonstrable existence of man on the earth and the immeasurably longer duration of his prehuman ancestry. The biological improvement and cultural progress of man have both been a gradual development. As we retrace the steps of human and social evolution we do not come upon a Paradise but upon a bestial state. Without denying cases of significant retrogression in the past or entering upon the debatable problem as to the matter of the physical betterment of the race, there is no doubt of the possibility of infinite cultural and institutional improvement, if we are ever able to avail ourselves of the potential resources of the

[42] A. D. White, *History of the Warfare of Science with Theology*, Chaps. vi–viii; J. B. Bury, *The Idea of Progress*, Introduction, and Chap. iii; G. Santayana, *The Life of Reason: Reason in Religion*, Chap. vi.

human intellect. Instead of the depressing orientation of orthodoxy, we may substitute a dynamic, progressive and optimistic view of history, though it is impossible to defend successfully any teleological interpretation or to to hold that the planet may not at any time be snuffed out of existence by some slight cosmic disturbance, readjustment or new equilibration.[43]

Down to some twenty or thirty thousand years ago cultural progress was paralleled, and probably accelerated, by biological development, but there is little evidence for biological and neurological improvement since the time of the appearance of the Cro-Magnon type. Consequently, human progress has become more and more dependent upon advances in culture and ideas. We have come to rely more and more on *nurture* and less and less on *nature,* though this in no way implies a disbelief in the potency of superior human types or the efficacy of the eugenic program. As to the question of the possibility of artificially accelerating human progress and cultural achievements, there is no doubt about our power to improve our material culture. Our achievements since the Industrial Revolution in this regard have been stupendous beyond comparison. The great problem, as Professor Veblen has so profoundly stated, is as to whether we can secure anything like a parallel improvement of the institutional aspects of our social heritage or whether civilization will perish because of a fatally great disparity between our technology and our social institutions.[44]

The historical orientation gives us, however, some considerable ground for patience in attempting to work

[43] Robinson, *The New History,* Chap. viii; F. S. Marvin (editor), *Progress and History.*

[44] S. J. Holmes, *The Trend of the Race;* G. Wallas, *Our Social Heritage,* Chaps. i–ii; L. F. Ward, *Outlines of Sociology,* Part II; T. Veblen, *The Theory of Business Enterprise,* Chaps. ii, ix; *The Vested Interests and the State of the Industrial Arts;* and *Absentee Ownership,* Chaps. i–vi.

out institutional improvements. The long and tedious process of reaching our present state may well act as a preventive against too great pessimism about the apparent slowness of contemporary amelioration and advance. We are moving more rapidly in most ways than ever before, even though there is no certainty that we are going in the right direction or rapidly enough. And the conservative can get slight comfort from history; no civilization has long been able to stagnate safely. Progress or decline seems to be the law of nature. The one menacing element in our present situation which did not exist earlier is the potency of our new technology for human and cultural destruction. If war can be averted until our intelligence has more opportunity to play upon the complex problems of today we may be able in time to bring our institutional life up to something like the same plane of efficiency as now characterizes technology, but there is little reason to believe that western civilization can weather another general war.[45]

The new historical perspective also furnishes a vastly more satisfactory basis for a theory of progress than that possessed by writers like Vico, Turgot, Kant and Condorcet who first developed the foundations of our modern doctrines of progress back in the eighteenth century. Not only were they ignorant of modern biology, psychology and social science, but were also denied a knowledge of the slow development of human culture in the half million years before Adam, as well as of the marvellous advances in science and technology since their day. Modern anthropology, history and the advances in natural and social science and their applications, have for the first time

[45] J. H. Robinson, *Mind in the Making;* and *The Humanizing of Knowledge;* H. E. Barnes, *History and Social Intelligence;* F. S. Marvin, *The Century of Hope;* A. B. Wolfe, *Conservatism, Radicalism and Scientific Method;* W. Irwin, *The Next War;* and *Christ or Mars;* M. E. Ravage, *The Malady of Europe.*

furnished the basis for at least a tentative theory of progress, though it must be frankly admitted that the developments in certain lines of culture have been far more notable and demonstrable than in others. And of course, all criteria of progress are to a certain degree subjective, there being no proof available that the number of saved souls crowding their way through the Pearly Gates is any higher per capita of the population than in the days of St. Augustine, or that æsthetic considerations weigh more heavily in the valuations of contemporary Los Angeles than they did in Periclean Athens or the Florence of Machiavelli.[46]

V. HISTORICAL CHRONOLOGY AND THE PERIODIZING OF HISTORY

The history of historical chronology is an interesting phase of the history of history itself, which can be touched upon but lightly in this place. Down to the time of the Romans, and particularly the Christian Fathers, there was little real interest in chronology because even the historians had generally failed "to discover the past." As a matter of fact, as Professors Webster and Shotwell have made clear, it was the priest rather than the historian who discovered time and the calculation of dates.[47] The great majority of historical writing to the Roman period had been contemporary history, or else the references to the past were very vague and inexact from the chronological standpoint. While the modern historian is able to construct a passable chronology of Oriental history from the regnal lists and other court records, these peo-

[46] J. B. Bury, *The Idea of Progress;* J. Delvaille, *Essai sur l'histoire de l'idée de progrès;* A. J. Todd, *Theories of Social Progress;* W. F. Ogburn, *Social Change.* For brilliant statements of a pessimistic view see O. Spengler, *The Decline of the West;* and R. A. Cram, *The Nemesis of Mediocrity.*

[47] J. T. Shotwell, *Introduction to the History of History,* Chap. iv; H. Webster, *Rest Days,* Chap. vi.

ples themselves possessed no systematic historical chronology. The Greek historians never worked out more than the most elementary chronology, and this not until Timæus, about 300 B.C., introduced the method of determining it by reference to the Olympiac years. The Romans were more successful in devising a fairly practical chronology, dating their events on the basis of the alleged founding of Rome in 753 B.C.[48] But this system quite obviously made no effort to carry the historian's vision over the broad sweep of time back to the origins of mankind, though Nepos did initiate the process of preparing comparative chronological tables. Grotesque as was the Patristic chronology, it did have the merit of attempting to work out a scheme which would encompass the totality of historic time. To be sure, their hypothesis of the creation of man at a period not more remote than six thousand years before Christ was grotesquely inadequate for the attainment of this objective, and their selection of Hebrew history as the basis of their comparative chronological tables gave an absurdly exaggerated place to the history of the Jews and distorted the perspective of Oriental history, but at least they sized up the problem involved in the chronology of the past.[49] From that time to our own day students of historical chronology have been occupied chiefly in rendering more exact this chronology laid out by Julius Africanus, Eusebius and Jerome, these labors sometimes taking the form of the effort to be more specific, as in the case of Ussher and Lightfoot, or more scientific and reliable, as in the case of scholars like Scaliger and Clément. In general, all types of historical chronology down to our own genera-

[48] *Cambridge Ancient History*, Chap. iv (see bibliography, pp. 628–9).

[49] White, *op. cit.*, Chap. vi; Shotwell, *op. cit.*, Chap. xxvi; H. Gelzer, *Sextus Julius Africanus und die byzantinische Chronologie*; R. L. Poole, *Medieval Reckoning of Time*.

tion have been miserable, indequate and misleading. The criteria have been highly subjective, usually based upon some special religious or national criteria, whether it be the birth of Christ, the Hegira or dynastic mutations in the Far East. None of these have such objectivity or universal cultural validity or significance as to make them suitable for the chronology of world history. Even more serious is their invariable inadequacy from the standpoint of the time element. All are pathetically modern or recent in their point of departure, 6000 B.C. being the most ancient date allowed in even the most expansive of the orthodox chronologies. Biology and anthropology have thus made clear the necessity of readjusting our chronology to the recently revealed and demonstrated facts concerning the antiquity of man and human culture.[50]

A reconstruction of the chronology of human advance on such a basis would fall into something like the following form. The most general background is the astronomical, which reveals the enormous extent of the cosmos, and the insignificance of the size and past duration of the existence of our own planet. This is doubtless at once the most impressive and the most indefinite phase of the background of human evolution. Then come the geological ages of the development of the earth, the period before the origin of life doubtless being far longer in extent than that since the beginnings of primordial living matter. Since the origins of life we have a guide in the record afforded by paleontology, which covers a period so long that no cautious geologist will venture to express it in terms of years, but which must run into the hundreds of millions. Very recently, in the Pleistocene or next to the last of the periods in the most recent geological era, man began to make his appearance upon the earth. From this time

[50] H. Grotefend, *Abriss der Chronologie;* R. Schram, *Kalendariographische und Chronologische Tafeln.*

onward we have at our disposal the chronology worked out by "prehistoric" archeology from Thomsen to Mortillet, Déchelette and Rutot. This is divided into the stone age, with its subdivisions of eolithic, paleolithic and neolithic, each with elaborate and awesomely christened sub-periods; and the metal age, running through copper, bronze, iron and steel. The chronology of the stone age is still subject to vigorous controversy, but a safe estimate would put the beginnings of the eolithic at around a half million years ago, the paleolithic at about quarter of a million, and the neolithic at around twenty to fifteen thousand. The copper age may have begun in Egypt as early as 4000 B.C., the bronze age proper appears in the Ægean around 2600 B.C., and the iron age was initiated by the Hittites in Anatolia about 1350 B.C., and by the Celts of Hallstatt in Austria about a century later. The iron age may be said to embrace western civilization from the fourteenth century B.C. to the Industrial Revolution, which produced the true age of steel, with all of its implications and ramifications. Perhaps the most fundamental division of the history of mankind since the beginning of the metal period is that into: (1) the agrarian age of the pastoral and agricultural industries, characterized primarily by psychological and cultural provincialism, stagnation and repetition, and dominating society down to the coming of the Industrial Revolution; and: (2) the dynamic contemporary era of capitalism, industrialism and urban civilization.[51]

[51] H. G. Wells, *Outline of History*, Books I–II; H. W. Wilder, *Man's Prehistoric Past;* Chamberlin and Salisbury, *College Geology*, Part II; H. F. Osborn, *Men of the Old Stone Age*, pp. 1–47; works by Quennell and Burkitt in footnote 5; H. E. Barnes, *The Social History of the Western World;* T. Veblen, *The Theory of Business Enterprise*, Chaps. ii, ix; Robinson, *The New History*, Chap. v; N. S. B. Gras, *An Introduction to Economic History;* C. Wissler, *Man and Culture*, Chap. xi; A. L. Kroeber, *Anthropology*, Chaps. xiv–xv; L. C. Marshall, *The Story of Human Progress.*

Yet it will be easily perceptible that this accepted and already conventional summary of the newer and more comprehensive chronology is but a partial and incomplete one, as it lays stress primarily on material culture, in which the greatest progress has been made and where changes and developments are most readily detected and demonstrable. It is quite evident that for certain other special phases of cultural evolution quite another scheme of division would be essential, even though the one offered above might include more characteristic aspects of the mutations of civilization than any other. Further, all specific dating is still based upon the event arbitrarily selected by the early Christian chronographers, namely, the birth of Christ. While this will probably serve for practical purposes as well as any other, the special reasons for utilizing it, as they appeared to the Patristic writers, have ceased to be regarded as valid by progressive historians, and a more logical date would probably be 4241 B.C., the alleged date of the adoption of the Egyptian solar calendar and the earliest verifiable date in the history of mankind. Back of this we can never expect any dating more exact than periods, ages, eras and eons.

It should be clear enough to any thoughtful person that these new concepts in regard to chronology have a revolutionary bearing upon the older and conventional efforts and methods in the way of the periodization of history. Our present mode of historical periodization is one which took its origin in a wholly arbitrary and accidental way, and possesses no valid grounds for its establishment or continuance. To the Christian Fathers there had been but two important periods in human development, that of the unspeakable paganism between the creation of Adam and the birth of Christ, alleviated only by the shining exception of the divinely originated and guided Jewish culture, and the glorious age which

dawned with the coming of the Messiah. This conception and method of periodization was continued during the medieval period, largely because the work of Orosius, which had done the most to fix this division in the European cultural heritage, remained the approved manual of universal history until the work of Sabellicus was produced during the age of Humanism, and also because the Chronicle of Eusebius, in various versions, was the foundation of Christian chronology. In the writings of Otto of Freising (1114–1158) one discovers a combination of the outlook of Orosius with some faint beginning of the perception of the significance of the period which separated Otto from the Augustinian age, but Flavius Blondus (1388–1463) was perhaps the first to think of the Middle Ages as a somewhat distinct period characterized by the rise of new states in northwestern Europe following the decline of Roman power. He did not thus name them, however, and it seems that our conventional present-day trilogy of ancient, medieval and modern history is due primarily to the influence of Christopher Keller or Cellarius (1634–1707), who, in his *Historia medii aevi* (1688), proposed the following divisions: ancient history from Adam to Constantine; the Middle Ages from Constantine to the fall of Constantinople in 1453; and "new" or modern history from 1453 to his own day.[52]

The childish inadequacy of this periodization is evident to any thoughtful historian. In the first place, it ignores more than nine-tenths of the period of human existence upon the planet. In the second place, there are no such general cultural synchronisms as will allow of the development of a definite periodization of universal his-

[52] G. L. Burr, "How the Middle Ages Got Their Name," *American Historical Review*, 1915, pp. 813–14; P. Lehmann, *Vom Mittelalter und von der lateinischen Philologie des Mittelalters*; Fueter, *op. cit.*, p. 230; L. J. Paetow, *Guide to the Study of Medieval History*, pp. 105–7.

tory. A comparison of the state of culture in Egypt, Mesopotamia, India, China, Britain and California in 4000 B.C. will show the great diversity of civilizations included under one attempted artificial synchronism, quite as well as a comparison of the civilizations of Aix-la-Chapelle and Constantinople in 800 A.D., or of England, Russia and China in 1825 A.D. In the third place, such a scheme is inadequate even for the periodization of a single state, as one can readily observe by comparing the culture of Austria in 500 A.D. with that of the court of Emperor Frederick III. If we are to retain these old captions, we must extend their scope to cover a far broader sweep of years. In a general way, we might say that ancient history would seem most logically to include the period from the origins of man to the close of the paleolithic; medieval history the neolithic age; modern history the era from the age of metals to the Industrial Revolution; and contemporary history the period since the Industrial Revolution, though it is a question as to whether we need to hold at all to the older nomenclature. Further it is certain that all scientific periodization in the future will need to be highly pluralistic, discriminating and specialized. In certain phases of culture, like technology and economic institutions, there seems to be a definite pattern of accumulation and progress, but art and religion appear to obey no such formula, and there will continue to be wide divergences between the cultures of the various states of the world, while many of the apparent identities and parallelisms are often not truly such in their deeper psychological content. Hence, it would appear that the periodizing of the future will need to be confined to one definite cultural complex at a time in a single state or cultural unity. This may produce pedagogical confusion, but it will conduce to greater historical accuracy and discrimination. The suggestion of

Lamprecht that we should give up the old methods of periodizing and adopt one which is founded upon the succession of dominant types of collective psychology has in it much to commend it to the historian, whether or not he accepts as valid Lamprecht's own series of such dominants as the symbolic, typical, conventional individualistic, subjective, and the unchristened contemporary period, though, of course, the conception of the continuity of history challenges any plan for the periodization of history.[53]

VI. GEOGRAPHICAL FACTORS IN HISTORICAL DEVELOPMENT

The German philosopher Herder suggested that human history was essentially a process of the expression of *Geist,* as diversified and modified by external surroundings, of which the physical environment was the most important. But historians fell under the influence of Hegel with his zest for *Geist* and the state, and that of Carlyle with his notion of *Geist* inspired and impelled great men, so history in the nineteenth century languished under the spell of constitutionalism, nationalism and the enchantment of biographical episodes and anecdotes. Ritter was scarcely noticed, Buckle was laughed to scorn, and Ratzel largely unheeded. Even in our own day a scholarly American historian has revealed the majestic migration of *Geist* across the American continent, heedless alike of economic interests and geographic sections.[54] Gradually, however, historians have become conscious that the actions of man cannot be adequately described

[53] B. Croce, *History: Its Theory and Practice,* Part I, Chap. vii; C. Wissler, *Man and Culture,* Chaps. i, iv, xi; K. Lamprecht, *What is History?* Chaps. ii, iv–v.

[54] E. D. Adams, *The Power of Ideals in American History.* The latest exponent of a Neo-Hegelian view of history is the Italian philosopher, B. Croce. See *op. cit.,* Part I.

when divorced from their physical setting, and we have some notable instances of an increasing appreciation by historians of the significance of the ever more impressive and satisfactory body of concrete and theoretical material being placed at their disposal by the students of physiography and anthropogeography.[55]

The interest in the relation between geographic factors and social institutions and human culture is almost as old as history itself. The " father of medicine," Hippocrates, a contemporary of Herodotus and Thucydides, apparently contributed the first systematic essay on the subject, incidental to an effort to ascertain the effects of climate and other physical factors on the types and pathogenesis of disease. He ended by discovering reasons why the Greeks, as inhabitants of the " middle climate," were superior to the weaklings of the south and the barbarians of the north. Aristotle confessed his satisfaction with this interpretation, and Cicero indicated how this view really substantiated Roman superiority. Aquinas revived the Aristotelian concepts in the medieval period, and they appeared again slightly later in the writings of Ibn Khaldun (1332–1406), this time enriched by the Arabic geography. Bodin showed how geography has conspired with God to make the French a great nation, and offered suggestions as to how its study might aid statesmen in avoiding revolutions. Richard Mead and John Arbuthnot, two English physicians of the first half of the eighteenth century, exploited the new discoveries in physics and meteorology in order to build up interesting, if not convincing, interpretations of weather and climatic influences on man. Montesquieu's classic effort to erect a philosophy of history and a science of jurispru-

[55] See H. E. Barnes, *The New History and the Social Studies*, Chap. ii and the literature referred to therein. See also F. J. Teggart, *The Processes of History*, Chap. ii.

dence upon a geographic foundation was based chiefly upon the theories of Arbuthnot and the descriptive material brought together in Chardin's *Travels*. In the first half of the nineteenth century Karl Ritter, building upon a sound knowledge of history and the reliable geographical knowledge accumulated as a result of the labors of such explorers as Alexander von Humboldt, founded the science of anthropogeography in its modern sense. His impulse inspired the work of later systematizers such as Peschel, Guyot, and particularly, Friedrich Ratzel and Elisée Reclus. In addition to this systematic work by Ratzel, Reclus and later writers, such as Brunhes, Vallaux, Semple and Huntington, many significant contributions have been made to special phases of the subject by Demolins, Cowan, Metchnikoff, Mackinder, LePlay, Geddes, Hann, Huntington, Ward, Dexter, Hellpach and others.[56]

The bearing of such works upon historical exposition and interpretation is obvious. The systematizers mentioned above have touched upon well-nigh every environmental factor operating upon human society, and have provided a well articulated picture of the relation between man and nature. Demolins and Cowan have laid stress upon the importance of topography and routes of travel, as well as natural barriers to invasion and contacts. LePlay and Geddes have analyzed the river-basin as the basis of the natural geographic region in modern industrial society. Mackinder has indicated the importance of strategic geographic position in the history of national expansion and international relations. Hann and Ward have provided systematic manuals touching upon all phases of climatic influences upon man, and Ellsworth

[56] See the rather inadequate and inferior sketch of the development of anthropogeography in A. H. Koller, *The Theory of Environment*. Franklin Thomas has recently published a combined topical and historical survey, *The Environmental Basis of Society*.

Huntington has supplemented their contributions by a daring and original hypothesis of climatic oscillations, with which may have been associated many important historic migrations of peoples and the decline of historic cultures. Hellpach, Dexter, Huntington and Leffingwell have made a beginning in the investigation of the effect of weather and seasonal changes on human energy and activity.[57] Huntington has recently, in his *Earth and Sun,* set forth the hypothesis of the fundamental unity of climatic and weather influences and changes.

In addition to these works on general geographic influences upon the course of civilization, a number of geographers have devoted themselves to the specific relation between the environmental factors and history. Fairgrieve has indicated the relation between geography and universal history, a task which has been more recently and far more thoroughly executed by Brunhes and Vallaux, and Lucien Febvre. The significance of the river valley setting in early Oriental civilizations has been analyzed by Léon Metchnikoff. Philippson has provided a monumental study of the bearing of the geographical situation in the Mediterranean basin on Oriental and classical history. Newbigin has analyzed in detail Balkan geography in relation to Balkan history. Nissen has supplied the classic study of Italian geography. Vidal de la Blache has dealt in great detail with the geographical factors in French history. Mackinder has worked out the best study of the geographical background of the history of Great Britain, while Kretschmer, Partsch, Penck and Goetz have made notable contributions to the historical geography of central Europe, and Kropotkin and others have dealt with the geographic factors involved

[57] The works on geography in relation to history mentioned in this section are listed by title in my chapter on "Geography and History," *op. cit.* Space does not permit of their inclusion here.

in the history of Slavonic Europe. In America the geographic element in our history has been successfully investigated by Semple, Brigham and J. Russell Smith. Mention should also be made of the helpful contributions of the economic geographers such as Chisholm, McFarlane, Goetz and J. R. Smith to economic history.

Historians have followed in the lead of the geographers in devoting attention to the geographic influences which have shaped the development of specific historic areas or national states. H. B. George has executed an effort to show the general bearing of geography on history, particularly political and military history, a task briefly but more brilliantly executed by F. J. Teggart.[58] J. L. Myres has presented an interesting and stimulating survey of the geographic basis of the rise of the earliest historic cultures.[59] The historians of Oriental antiquity have studied so thoroughly the river-valley environment of these cultures that the Nile and the Tigris and Euphrates have become classic examples of alleged geographic determinism.[60] Curtius and Zimmern have set forth in detail the relation between the geography of the Greek peninsula and the rise and nature of Greek civilization.[61] Duruy provided a half century ago the sketch of Italian geography in its relation to Roman history which has never yet been supplanted.[62] Harnack recognized the geographic factors affecting the spread of Christianity.[63] Michelet and Jullian described with thoroughness the geographical

[58] H. B. George, *The Relation of Geography and History;* F. J. Teggart, *op. cit.*, Chap. ii.

[59] J. L. Myres, *The Dawn of History;* and *Cambridge Ancient History*, Chaps. i–ii.

[60] See the standard histories by Breasted, Meyer, Rogers, Maspero, Jastrow and Olmstead.

[61] E. Curtius, *History of Greece*, Chap. i; A. E. Zimmern, *The Greek Commonwealth*, pp. 13–64.

[62] V. Duruy, *History of Rome*, Vol. I, Chap. i.

[63] A. Harnack, *Die Mission und Ausbreitung des Christentums.*

background of French history.[64] Green supplied the classic survey of the bearing of the physical features of Britain upon English history, while Lucas has shown how geographic factors have influenced the nature and course of imperial expansion.[65] Riehl indicated in a penetrating manner the relation between Germanic geography and the evolution of German society and culture.[66] With respect to the United States, Payne has described the relation of the physical features to the period of exploration and settlement, Winsor has shown the historic significance of the Mississippi basin, and Hulbert has provided much descriptive detail on the routes of travel utilized in the conquest of the continent. But it has remained for Frederick Jackson Turner and his disciples to work out in convincing detail the relation between the geographic regions of the United States and its sectional and national history.[67] Finally, the German scholar, Helmolt, has edited a pretentious universal history, based upon a moderate acceptance of Ratzel's views on the relation between geography and history.[68]

In spite of the promising beginnings mentioned above with respect to the recognition of the significance of the physical environment for the historic development of a people, the great majority of conventional historians have devoted little attention to geographic factors; indeed, one may doubt if they are vividly conscious of their existence

[64] J. Michelet, *History of France,* Vol. II, Chap. i; C. Jullian, *Histoire de Gaule,* Vol. I.

[65] J. R. Green, *The Geography of the British Isles;* and *The Making of England;* C. P. Lucas, *Historical Geography of the British Colonies.*

[66] W. Riehl, *Die Naturgeschichte des Volkes als Grundlage einer deutschen Sozialpolitik,* vol. i.

[67] E. J. Payne, *A History of the New World Called America,* Vol. I; J. Winsor, *The Mississippi Valley;* A. B. Hulbert, *Historic Highways of America;* and *The Increasing Debt of History to Science;* F. J. Turner, *Syllabus of the History of the West;* A. M. Schlesinger, *New Viewpoints in American History,* Chap. ii.

[68] H. F. Helmolt, *The History of the World,* 8 Vols. 1902–7.

or potency. And those who have assumed to give some thought to this subject have scarcely realized that the topographic, and not the political, map is the vital one by means of which to discover the operation of geographic factors in national development. If one were to turn to the great majority of modern historical works he would discover twenty political maps to one topographic map. Historical geography, to the average history teacher, is still little more than "chromatic politics" chronologically considered, with chief interest in the shifts of political boundaries.[69]

Along with the dominating interest in episodes, it is probable that the chief reason for this apathy, if not antipathy, on the part of historians towards geography is the erroneous impression that an interest in geography implies an acceptance of the materialistic doctrine of geographic determinism. The problem is not to be viewed in this light, but rather as a matter of man and nature evolving together. To employ the phrase of Ratzel, "every geographical problem must be studied historically, and every historical problem must be studied geographically." Various geographical influences operate quite differently in distinct periods of technological evolution. Further, as the critical anthropologists of the Boas school have amply demonstrated, there is no possible ground for a belief in complete geographic determinism, beyond such broad considerations so that the costume designs of the natives of the Belgian Congo would scarcely be practicable north of the Arctic circle. There are very different cultures existing in approximately the same geographic environment, while highly similar civilizations are to be found in very divergent types of physical surroundings.

[69] D. R. Fox, *Harpers' Atlas of American History.* For an illuminating example of the interpretation of historical geography as boundary changes, see the interesting and scholarly article by Ruth L. Higgins in *The Iowa Journal of History and Politics,* July, 1923.

Culture seems to be the dynamic element in history, playing as it does upon many factors, among the most potent of which are the natural surroundings and resources.[70]

While geographical considerations are important for all phases of history, they are of special significance for dynamic social history. Material culture and resulting social institutions appear to be primarily the result of the application of a definite technology to the natural resources. Both are indispensable to any flourishing economy. Modern Italy is a good example of a country relatively backward economically, in spite of remarkably proficient technicians, because of a lack of mineral resources for a development of the iron and steel industries, while Russia presents the opposite example of industrial retardation due to lack of a modern technology to exploit remarkably rich mineral resources. In this interplay technology is the dynamic and geography the latent factor. A threadbare example of the alteration of geographic influence with a transformation of science and technology is the influence of the Mediterranean Sea and the Atlantic Ocean. Once barriers to travel and causes of cultural isolation, they have, since the invention of the art of navigation, first by galley and sailboat and later by steam-vessels, become the chief instruments for the development and expansion of civilization from the beginning of the third millenium B.C. to our own day. Likewise waterpower, once largely useless because of inaccessibility or remoteness from sea and settled territory, may now be utilized through the generation and transmission of electrical power.[71]

One of the most interesting recent examples of the

[70] F. Boas, *The Mind of Primitive Man*, pp. 159–64; R. H. Lowie, *Culture and Ethnology*, Chaps. iii–iv; A. A. Goldenweiser, "Culture and Environment," *American Journal of Sociology*, March, 1916; R. R. Marett, *Anthropology*, Chap. iv.

[71] J. Brunhes, *Human Geography*; F. Müller-Lyer, *History of Social Development*; L. C. Marshall, *The Story of Human Progress*.

growing *rapprochement* between history and geography is the interest in regional geography and sectional history. French geographers, following Vidal de la Blache, have done much to forward the intensive study of natural geographic regions which mark out the ideal and natural basis for the development of a social and cultural unity. This concept has been appropriated by LePlay's disciples in France and by Patrick Geddes in Scotland as the basis of a suggestive theory of social reform. While many European historians, such as Lamprecht and Schmoller, have analyzed the relation between certain geographic sections and the economic life contained therein, the man who has done most to elaborate this field has been Professor Frederick Jackson Turner. Taking as his key to the interpretation of American history the logical, if novel, thesis that it has been primarily a process of pushing westward a frontier and pioneer society from the Atlantic seaboard to the Pacific, he has shown how this general movement has been diversified by the divergent and varied geographic areas traversed. So that while, in a sense, the development of the United States has been a unity of expanding area and power, it has, in another sense, been characterized by social, economic, cultural and political diversity, due very largely to differences in geographical setting and resources. This sectional divergence has been a source of strength and power, through a sort of regional division of labor and coöperation, but it has, at the same time, been a chief cause of difficulty in the matter of maintaining political unity and loyalty. It may be predicted that in the future historians will turn their attention away from exclusive concern with so artificial a unit as the state, and concentrate their efforts upon an attempt to trace the history of and interaction between natural geographic regions and their social and cultural products. And it may even be that in the future

political entities will conform to appropriate and convenient geographic settings instead of being constructed according to the irrational and artificial impulse of personal and dynastic ambition.[72]

And, finally, to pass from the basic geographic unity in the natural region to the opposite extreme, it may be pointed out that since the expansion of Europe overseas from 1500 onward, and particularly since 1870, world geography has become a subject of ever greater importance to the historian. No one can hope to write intelligently of European expansion who is not familiar with the natural features and resources of the discovered, colonized or exploited areas. To a certain extent this element of world geography may be said to have expanded history in space much as biology and anthropology have extended the scope of its time perspective and chronological orientation.[73]

VII. THE EXPANSION OF THE SCOPE OF HISTORICAL INTERESTS

While we may agree with James Harvey Robinson that "history, in the broadest sense of the word, is all that we know about everything that man has ever done, or thought, or hoped or felt," this conception has rarely guided historical work in the past. In general, theological and political canons and considerations have been dominant throughout the greater part of the course of the development of historical writing. Among the Jews most of the historical writing was occupied with proof

[72] P. Geddes, *Cities in Evolution;* Geddes and Branford, *The Coming Polity;* F. J. Turner, *The Frontier in American History;* "Sectionalism in the United States," in Hart and McLaughlin, *Cyclopedia of American Government;* "Sections and Nations," *Yale Review,* October, 1922.

[73] J. Bryce, *World History;* and Introduction to Volume I, of Helmolt's *History of the World;* W. R. Shepherd, "The Expansion of Europe," in *Political Science Quarterly,* 1919.

of God's tender and unique solicitude for the Seed of Abraham. Patristic, medieval and Reformation historiography was shot full of supernaturalism, always endeavoring to make clear God's somewhat vacillating and changeable will towards man. This *motif* dominates the succession of works from Chronicles—Ezra—Nehemiah, through Augustine, Orosius, Otto of Freising, Baronius, Bossuet, Paley, Mark Hopkins, Pastor Russell and Chancellor Day. Even in our own day distinguished historians dogmatically assure us of God's existence and detail his attributes. For example, Henry Osborn Taylor, one of our most learned and productive students of European intellectual history, and next in line for election to the presidency of the American Historical Association, concludes his latest book with the assurance that

> God exists; we may be as sure of Him as ever; it is only the rational proofs of God that change and lose their validity. The sense of the divine, the strength and comfort of belief in God, may still be the grandest verity of human life; may still assure us that here and forever all things shall never cease to work together for good to them that love God, who rest in the sure harmony of relationship with the divine and omniscient and omnipotent love. . . . Human progress still points onward through the action of the free intelligence, the righteously resolving will, and the ever more enlightened love of God and man. . . . Through many conflicts and in many ways, but always in the way of freedom, the human soul has been emerging, and has been gathering, as it were, affinity to God, in whom lies its immortality,[14]

On the whole, however, the last half century has been one characterized by a notable and healthy secularization of historical writing. Not only has the interest in supernaturalism enormously declined, but there has also been a distinct lessening of the feeling of dogmatic assurance about the nature of God and his specific will and wishes with respect to the human race. The findings of modern science and biblical criticism have not only undermined the older dogmatics and apologetics; they have also made

[14] H. O. Taylor, *The Freedom of the Mind in History*, pp. 293–7.

it woefully apparent how inadequate are the orthodox conceptions of the extent, nature and control of the cosmos. In the face of this situation, the informed and thoughtful historian hesitates to deliver himself of theological opinions or to assume to possess the confidence of God, even though admitting cosmic problems to be infinitely more impressive and interesting than they could possibly have been to Augustine or Luther.[75]

The other obsession of the conventional historian—an absorption in political events and episodes has died harder and is still a potent force opposing the development of a more rational and inclusive type of historical writing. The political tradition has a heritage as venerable as the theological. Among the Jews the political and the religious preoccupations were blended. With Herodotus history came to be reasonably secularized and interest concentrated on political entities, though "the father of history" was less of an offender in this respect than any of the other major historians of classical antiquity, and made ample place for consideration of cultural elements and contrasts. From Thucydides to Freeman, Droysen and Rhodes, however, the great majority of the distinguished historians who did not devote themselves to advancing the cause of Christ, the Pope or predestination, were engrossed in a study of various events, episodes and anecdotes relating to the political, diplomatic or military history of some political unit or group of interrelated units. Droysen, Freeman and Schäfer frankly and aggressively proclaimed history to be but "past politics," though some weak and flabby spirits might busy themselves with the history of economic life, social institutions, literature or the fine arts.

To a very considerable degree this political obsession was due to two influences, not entirely distinct—the

[75] Cf. B. Russell, *A Free Man's Worship;* and *What I Believe.*

Hegelian theory of the state and the spirit of nationalism. The philosophy of Hegel had emphasized the state as the noblest of God's mundane achievements, and his philosophy had enormous vogue among the German savants who founded the science of history in its modern form in the first half of the last century. Added to this was the sentiment of nationalism, which flourished with particular virulence during the French Revolution and the Napoleonic period, and was given a more stable material basis by the Industrial Revolution. The French memories of the Revolutionary and Bonapartist glories, the German inspiration from the War of the Liberation and the unification of the Empire, the Italian ecstacy over the ultimately consummated ambition for a united Italy which had inspired Dante and Machiavelli as well as Mazzini, the English enthusiasm over the Peninsular campaign and Waterloo, as well as the new imperial expansion after 1870, and the pride of the Americans over the foundation of the federal Republic and its preservation intact after a great Civil War, all served to warm the hearts of the great historians of the nineteenth century. And along with these purely political foundations of nationalism went others of a psychological and cultural sort, such as the doctrines of racial and cultural superiority. Hegelianism and nationalism in combination proved amply adequate to hold the historians firmly in the service of political history.[76]

One would find less to complain of concerning the devotion of these historians to political history if they had promoted a study of political institutions and contributed to an increase of our knowledge concerning the development of the state and its various organs. But

[76] W. A. Dunning, *Political Theories from Rousseau to Spencer*, Chaps. iv, viii; H. E. Barnes, "History: Its Rise and Development," *loc. cit.*, pp. 234–50; "Nationalism: Its Origin and Development," *Encyclopedia Americana;* A. N. Holcombe, *Foundations of the Modern Commonwealth*, Chap. iv; C. J. H. Hayes, *Essays on Nationalism.*

the majority of this political history was perverted and rendered largely irrelevant through the operation of two influences flowing from the effects of romanticism upon historical writing. One was the romanticist theory that history should be vivid and interesting, and, hence, that the finest sort of historical material was to be discovered in real or imaginary dramatic episodes. The other was the view, drawn largely from Carlyle and his disciples, that history is collective biography. Hence the personal loomed large in this variety of historiography. On account of the triumph of this combination of ideals and aspirations, the great majority of the political history of the last century was primarily biographical and episodical, and threw little light upon the general problems of the origins and evolution of basic political institutions. It is scarcely an exaggeration to say that works like those by Maitland, Luchaire, Esmein, Viollet, or Brunner were more enlightening with respect to the history of the state than the achievements of a score of equally scholarly conventional political historians of their day. Amazing detail concerning essentially irrelevant material was, then, the characteristic thing about the respectable historical writing of the last century.[77] Yet an exclusive devotion to even the dynamic and vital political and legal history of the type represented by Brunner, Luchaire and Maitland can hardly be defended. The state is not the whole of human society or culture. It is but the umpire of the social process, the arbiter of countless social and cultural interests, many of which were anterior to the state, and all of which taken together supply the dynamic and creative elements in the development of man and society, significant as the state may be in rendering their impulses, interplay and conflicts more constructive and beneficial and less disintegrating and disastrous. And, moreover,

[77] Probably the worst offender in this respect was Freeman himself.

the detailed study of the state is the province of political science rather than history.[78]

In spite of the fact that the majority of respectable historians in every modern state, and particularly in Europe, remain faithful worshippers at the political shrine, there has been revolutionary progress in the last half century in the way of expanding the scope of the historian's interests. This has probably been due to the remarkable cultural changes of the period, to the rise of new and pertinent natural and social sciences, and to the greater independence and liberty of scholars, which has allowed able and original historians to execute their ambitions and express their conceptions with relative freedom. The remarkable progress in science, technology and economic institutions, with the resulting social and cultural changes, have led to a great increase of interest in the history of science and technology, and in economic and social history. The rise of psychology, anthropology and sociology have introduced new lines of approach to the study of man and his activities in society, and have furnished added guidance in the execution of this project. The exaggerated interest of Burchhardt and Symmonds in the Renaissance was an important factor in arousing a greater concern with the history of literature and the fine arts. Along with some disastrous influences mentioned above, romanticism had also served to broaden the ken of the historian and interest him in religion, philosophy, art and letters. And not a little must be assigned to the personal insight, originality and courage of such historians as Schmoller, Lamprecht, Gothein, Breysig, Rambaud, Seig-

[78] A. F. Bentley, *The Process of Government;* A. W. Small, *General Sociology;* F. H. Giddings, *The Responsible State;* C. A. Beard, *The Economic Basis of Politics;* H. E. Barnes, *Sociology and Political Theory;* H. J. Laski, *Studies in the Problem of Sovereignty,* especially Chap. i; *A Grammar of Politics;* R. M. MacIver, *Community: A Sociological Study.*

nobos, Faguet, Berr, Green, Pollard, Marvin, Bury, Zimmern, Merz, Altamira, Ferrero, White, Robinson, Burr, Shotwell, Beard, Turner, Becker, Farrand, Breasted, Shepherd, McMaster, Abbott, Dodd and others, who have so largely fashioned "the new history." Looking at the change broadly, it may be safely maintained, without any suspicion of national vanity or arrogance, that the movement for a more dynamic and comprehensive type of history has gained a much firmer hold in the United States than elsewhere, and has been received with the least cordiality and determination in Great Britain.[79]

The fundamental tenet of the exponents of the new history is that it is the function and duty of the historian to describe every phase of the development of the culture and institutions of a people, though any particular historian may select that aspect of the history of civilization which most interests him. At the same time, it must be conceded that one interested in the history of Anglo-Saxon literature or the Irish learning of the sixth century is as truly an historian as he who traces the evolution of the Witanagemot or the vicissitudes of the Saxon dynasty. This does not mean that it is not necessary for the historian to discriminate at all in weighing and estimating the importance of events, but it does oppose strenuously the notion that any one phase of human achievement so transcends in importance any other that we are justified in concentrating on one or two aspects of culture and in ignoring the others. What the new historian pleads for is not the substitution of a new fetish for the political obsession, but rather for the recognition of the necessity of describing the development of every phase of the life and culture of a society. It is obvious that with the widening of the historical field in this manner the execu-

[79] H. E. Barnes, "History: Its Rise and Development," *loc. cit.*, pp. 251–60.

tion of a well-rounded history of even a single national state will require the coöperation of a large number of enthusiastic and tolerant experts. No one person could well hope to master every phase of the history of a single society during even a brief period. The great historical works of the future seem destined to become coöperative products.[80]

Any attempt to give a complete bibliography of the contributions made to the new or dynamic cultural history would be impossible in this place, and only a few representative contributors to each field can be mentioned. Even political and religious history have been affected by the new impulses and tendencies. In the field of political history the anecdotal and episodical tendency is losing ground and is being replaced by the institutional political history, as represented by such works as those of Brunner, Fustel de Coulanges, Flach, Luchaire, Esmein, Viollet, Maitland, Vinogradoff, Pollard, G. B. Adams, Osgood, Farrand and Beard. And the interest in religious history has taken a healthy turn. Instead of being regarded as the chief subject-matter of historical writing, it has been made a separate department of historical studies and pursued in an objective and scholarly manner by such students as Reinach, Moore, Hopkins, Harnack, Frazer, Lea, Conybeare, Schmidt, Cumont, Fowler, Harrison, Gardner, McGiffert, and a host of historians of

[80] The most stupendous example of historical coöperation yet known to man is the Carnegie Endowment Social and Economic History of the World War, edited by Professor James T. Shotwell, and including among its collaborators over two hundred leading historians, economists, sociologists and political scientists. Indeed, it is probable that it is the most notable association ever formed for the promotion of a specific learned project. Another imposing coöperative effort is that planned by Henri Berr in his series entitled, *L'Evolution de l'Humanité*, which will be much the most notable contribution yet made to the history of civilization. In its English version as *The History of Civilization* many new volumes have been added to the original French enterprise.

the Christian Church and its institutions and practices. Intellectual history, or the history of dominant and changing ideas and opinions, has been cultivated by Lamprecht, Goethein, Gomperz, Wiliamowitz-Möllendorff, Brandes, Faguet, Lecky, Merz, Benn, Bury, Stephen, Morley, Barker, Marvin, Draper, White, Robinson, Burr, Thorndike, Becker, Veblen, Taylor, Haskins, Preserved Smith, Abbott, and others. The history of science and technology has been fruitfully investigated by Mach, Dannemann, Müller-Lyer, Vierendeel, Duhem, Tannery, Milhaud, Berthelot, Sarton, Singer, Shipley, Merz, Sedgwick, Tyler, Cajori, Libby, Thorndike, Haskins, Fiske, Veblen and others. The history of economics and industry has been forwarded by Schmoller, Inama-Sternegg, Levasseur, Jaurès, Georges Renard and his collaborators, Mantoux, Rogers, Cunningham, Ashley, Gibbons, Clapham, Chapman, Dawson, Prothero, Mavor, Bogart, Lippincott, Gras, Usher, Marshall, Ogg, Day, Dewey, E. L. Osgood and others. The history of social institutions, classes and processes has received attention from Lamprecht, Nitzsch, Breysig, Levasseur, Rambaud, Luchaire, Seignobos, Green, Maitland, Pollard, Slater, Tawney, Traill and Mann and their collaborators, Shotwell, Turner, Hayes, Dodd, Commons, Becker, Ogg, Farrand, J. T. Adams, Schlesinger, Schapiro, Paxson and others. The history of philosophy has been cultivated by Zeller, Erdman, Ueberweg, Windelband, Fischer, Höffding, Croce, Weber and many contributors to special periods and topics. The history of ethics has been advanced by Lecky, Stephen, Hall, Wundt, Denis, Hobhouse, Westermarck, Sumner, Dewey and Myers. The history of literature has been described by Christ, Croiset, Teuffel and Schwabe, Duff, Murray, Sandys, Faguet, Ebert, Baumgartner, Saintsbury, Scherer, Vogt, d'Ancona, Fitzmaurice-Kelley, Brückner, Schweitzer, Masaryk, Wen-

dell, and the contributors of the Cambridge histories of American and English literature. The literature on the history of art and æsthetics is enormous, even though it has been generally ignored by historians. A few classic books in this field are those by the following authors: Burkhardt, Gervinus, Gregorovius, Woltmann, Müntz, Michel, Sainte-Beuve, Choisy, Lübke, Reinach, Cram, Norton, Collignon, Perrot, Chipiez, Crowe, Morelli, Concourt, Muther, Putnam, Hamlin, Van Dyke and Frothingham.[81]

Another phase of the expansion of the scope of history is that mentioned above in connection with the discussion of the relation between geography and history, namely, the tendency of historians to look beyond national boundaries and discover dynamic factors in the relations between different states and cultural unities. These extra-national and extra-European forces operating on modern civilization may be observed on an important scale as early as the Crusades, which were probably more consequential than any other single factor in making possible the remarkable cultural development of the thirteenth century. From Robertson to Munro and Barker historians have called attention to these influences flowing from the Crusades. Even more striking were the results

[81] A few references dealing with the developments of a broader conception of history are the following: C. Becker, "Some Aspects of the Influence of Social Problems and Ideas upon the Study and Writing of History," *Publications of the American Sociological Society*, 1912; Gooch, *op. cit.*, Chap. xxviii; E. R. A. Seligman, *The Economic Interpretation of History;* C. A. Beard, *An Economic Interpretation of the Constitution*, Chap. i; Robinson, *The New History;* H. E. Barnes, *The New History and the Social Studies; History and Social Intelligence;* F. M. Fling, "Historical Synthesis," in *American Historical Review*, October, 1903; K. Lamprecht, *What is History?* Chap. i; H. Rickert, *Kulturwissenschaft und Naturwissenschaft*, Chaps. x, xiv; A. M. Schlesinger, *New Viewpoints in American History.* Most of the works of the authors mentioned in the text should be cited by title in the forthcoming revision of C. K. Adams' *Manual of Historical Literature.*

of the first great era of European expansion overseas following 1500. By all up-to-date historians it is agreed that these forces, rather than the Renaissance or Reformation, produced modern society, characterized by scientific curiosity, the rise of critical thought and toleration, new industrial, commercial and colonial enterprises, the end of feudalism and the rise of the national state, and the growth of the power of the middle class. Historians from Raynal to Seeley, Mahan, Shepherd, Abbott, Gillespie, Bolton, Merriman, Morris, Preserved Smith, Leroy-Beaulieu, and Van der Linden have recognized the significance of this important era for the history of modern civilization. But most epoch-making of all has been the investigation of the effect of European colonization and imperialism since 1870. While some historians have been impressed with the national obligations involved in the "white man's burden," have exhibited an ardent national and imperialist spirit and have capitulated to the doctrine of racial egotism, the majority have reacted in quite a different manner. Its more fortunate effects upon historical writing, as exhibited in the works of the more thoughtful historians, have been a broadening of the knowledge of mankind, the enriching of the stores of historical information, an increase of tolerance for cultures different from our own, and the direction of the attention of the historian to the new social, economic and administrative problems which have been created, as well as the efforts to solve them, whether savage and avaricious or in harmony with the principles of enlightenment and humanity. Among the historians and publicists who have given special attention to this subject of the history of modern imperialism have been Bryce, Douglas, Hobson, Macdonald, Lucas, Egerton, Woolf, Johnston, Keltie, Jenks, Toynbee, Kidd, Rose and Skrine in England; Bordier, Garaffel, Leroy-Beaulieu, Cordier, Piquet, Rambaud, Fribourg and Megglé

in France; Meinicke, Von Hagen, Meyer, Zimmermann and Peters in Germany; and Shepherd, Reinsch, Coolidge, Williams, Beer, Bolton, Keller, Dennett, Gibbons, Duggan, Bowman, Blakeslee, Dennis, Robertson, Hornbeck, Latourette, Earle, Harris and Jones in America. On the whole, this trend has tended to broaden the outlook of the historian, not only with respect to geographic space but also in regard to the scope of his interests. And with the results of the new technology and commerce, which are making the world an economic and cultural unit, it is becoming more and more apparent that modern synthetic and dynamic history must become world-history. Hence, anthropology, geography and culture impress upon the modern historian the unity of mankind and of history.[82]

VIII. THE INTERPRETATION OF HISTORY

By the close of the nineteenth century vast collections of well authenticated facts were brought together and the machinery of historical scholarship perfected, as far as it related to the externals of historical information. But in almost all cases the labors of those historians had resulted only in the collection of the *data* of history. The student of history was in a condition not unlike that in which the physicist, chemist or biologist would find himself if supplied with a vast body of note-books containing the carefully set down records of countless experiments and observations, but without any real attempt to interpret the significance of this mass of material or to derive from it scientific laws of general applicability. The determination on the part of the majority of historians to resist being

[82] The ablest brief statement of this point of view is contained in James Bryce's Raleigh Lecture, *World History*. Guides and bibliographies may be found in E. Krehbiel, *Nationalism, War and Society;* D. P. Heatley, *Diplomacy and the Study of International Relations;* and the numerous syllabi prepared under the direction of S. P. Duggan of the Institute of International Education. The first textbook thoroughly to embody this idea was A. C. Flick, *Modern World History.*

seduced from the discovery of facts and the narration of successive events was not without some justification a half century ago. The memory of Hegel's grotesque attempt to adapt the facts of history to substantiate his fantastic view of historical development was fresh in their minds and, moreover, the facts upon which any sound interpretation could be based had not yet been fully gathered. It would, however, betray clouded thinking to hold that this gathering of facts marked the final completion of the task of the historian no less than it would for the scientist to contend that his work was at an end when he had tabulated his observations. The careful and painstaking interpretation of historical material, far from being unscientific and wholly aside from the task of the historian, in reality constitutes the final rounding out to completion of the scientific method in history and gives some meaning and significance to the vast array of facts. This vital fact has been effectively stated by Professor James Harvey Robinson and A. F. Pollard in the following citations:—

History, in order to become scientific, had first to become historical. Singularly enough, what we now regard as the strictly historical interest was almost missed by historians before the nineteenth century. They narrated such past events as they believed would interest the reader; they commented on these with a view of instructing him. They took some pains to find out how things really were—*wie es eigentlich gewesen.* To this extent they were scientific, although their motives were mainly literary, moral, or religious. They did not, however, in general, try to determine how things had come about—*wie es eigentlich geworden.* History has remained for two or three thousand years mainly a record of past events, and this definition satisfies the thoughtless still. But it is one thing to describe what once was; it is still another to attempt to determine how it came about.[88]

Facts: I make the avowal at the risk of the laughter of pedants—are only a secondary consideration from my point of view, and they will only be used as illustrations. That phrase is perhaps unlucky; at least it has lately caused some innocent merriment. And, indeed, one's facts should be correct; but their meaning is greater than the facts themselves, and it is with the meaning of historical facts that I am now concerned. It is only when we penetrate the outer husks

[88] Robinson, *The New History*, p. 62.

of facts that we can reach the kernel of historic truth. A fact of itself is of little value unless it conveys a meaning. There is a meaning behind all facts, if one can only discover it; but to discover the meaning of facts is commonly the last object at which the writers of text-books aim. Facts are stated as though their statement were all that is necessary, and as though to remember them were more important than to understand them, as though the end of education were to make the youthful mind a lumber-room of facts, instead of an efficient instrument, trained to perform the duties of life and to discover the features of truth.[84]

As Comte suggested and Professor Shotwell has made clear, the prevailing types of historical interpretation through the ages faithfully reflect the dominating intellectual interests of the successive eras. The supernatural epics of the ancient Orient were superseded by the mythological and philosophical interpretations of the thinkers of classical antiquity. With the general acceptance of Christianity, the classical mythology was replaced by the dualistic and eschatological conception which dominated historical interpretation from Augustine to Bossuet. With the coming of the Commercial Revolution and its violent shock to the old intellectual order, there arose the critical and rationalistic school of Bacon, Descartes, Voltaire, Hume and Gibbon, which, on account of its being too far in advance of the intellectual orientation of the times, tended to lapse into the idealism of Kant and Hegel, and the romanticism of Burke, Bonald, De Maistre, Fichte, Schlegel and Schelling. The growth of nationalism following the French Revolution tended to give temporary precedence to the political mode of interpretation, but the great transformations which constituted the scientific and Industrial Revolutions, of necessity doomed so superficial a view to an ephemeral existence. The unprecedented breadth and depth of modern knowledge and intellectual interests have produced a number of interpre-

[84] A. F. Pollard, *Factors in Modern History*, pp. 2–3.

tations of historical development, most of which represent the outgrowth of some one of the outstanding intellectual and social transformations of the last century.[85]

With the growth of modern natural science and the critical attitude in the appropriation and assimilation of knowledge, the effort to form some magnificent and systematic philosophical scheme for the organization and presentation of historical development, such as was devised by Augustine, Bossuet, and Hegel, has greatly declined. Scepticism of any formal philosophy of history seems to be but a necessary accompaniment of our increasing knowledge of the infinite complexity of social and historical phenomena, as these attempts to reduce the course of history to a framework of such simplicity savor too much of the *a priori* method, now so thoroughly discredited. To take the place of the older dogmatic philosophy of history there have developed what may be called "interpretations" of historical data. These at present differ from the older philosophy of history in the absence of any teleological element and in the rejection of the deductive method. They aim solely to emphasize and bring into higher relief those factors, which, according to the various schools of interpretation, seem to have been most influential in producing the civilization of the past and today. It is, in short, the attempt to supplement Ranke's rather aimless search for what occurred in the past by at least a feeble and humble effort to explain how the present order came about. Instead of being less scientific than the older program of Ranke, it really constitutes the completion of scientific method in historiography, in the same way that the formulation of the great generalizations and laws of natural science constitute the logical completion of the

[85] J. T. Shotwell, *Introduction to the History of History*, Chap. xxvii.

task of gathering data by observation in the field and experimentation in the laboratory.[86]

There are at present some seven definite schools of historical interpretation among the representatives of the modernized students of historical phenomena, each of which has made an important contribution to our knowledge of historical development. They are in no sense mutually exclusive, but are rather, to a large degree, supplementary. They may be designated as the personal, biographical or "great man" theory; the spiritual or idealistic; the scientific and technological; the economic; the geographical; the sociological; and the synthetic or "collective psychological." It may be pointed out in passing that, in the main, the older type of historian either clings to the outworn theory of political causation, or holds that historical development is entirely arbitrary and obeys no ascertainable laws.[87]

The best known of these schools of historical interpretation, and the only one to which the conventional historians accord any consideration, is that which found its most noted representatives in Carlyle and Froude, who claimed that the great personalities of history were the main causative factors in historical development—that history is collective biography. This view is, of course, closely allied to the catastrophic interpretation of the eighteenth century rationalists. Perhaps the most distinguished contemporary adherents have been Émile Faguet, W. H. Mallock, William Roscoe Thayer, and William A. Dunning.[88] A somewhat belated offshot of the idealism

[86] E. P. Cheyney, "Law in History," *American Historical Review*, January, 1924.

[87] For example, E. Emerton and F. M. Fling; see *American Historical Review*, April, 1904, p. 450; and F. M. Fling, *The Writing of History*, Chap. i.

[88] H. L. Stewart, "Carlyle's Conception of History," *Political Science Quarterly*, December, 1917; W. R. Thayer, *The Art of Biography;* W. James, *The Will to Believe*, pp. 216–62.

of Kant and Hegel is to be found in the so-called spiritual interpretation of history, which has its most ardent advocates in Rudolph Eucken, Shailer Matthews and H. O. Taylor. Professor Matthews thus moderately and modestly defines this view of history: "The spiritual interpretation of history must be found in the discovery of spiritual forces coöperating with geographic and economic to produce a general tendency toward conditions which are truly personal. And these conditions will not be found in generalizations concerning metaphysical entities, but in the activities of worthful men finding self-expression in social relations for the ever more complete subjection of physical nature to human welfare." Viewed in this sense, far removed from the transcendentalism of Hegel, this type of interpretation can be said to have a considerable affinity with the "great man" theory and apparently aims to reconcile this doctrine with the critical and synthetic interpretation under cover of a common theological orientation.[89] Closely conformable to this mode of interpretation are E. D. Adams' attempt to connect the historical development of the United States with a succession of dominant national ideals, the origins of which are not adequately explained, and Croce's effort at a general synthesis and defense of the idealistic interpretation.[90]

The attempt to view human progress as directly correlated with the advances in natural science and technology received its first great exposition in the writings of Condorcet, and was revived by Comte and Buckle. Aside from the attention given to it by students of the history of science, such as Dannemann, Vierendeel, Sarton, Duhem, Tannery, Pearson, Singer, Shipley, Whetham, Cajori, Fiske, Libby and Sedgwick, this phase of historical inter-

[89] R. Eucken, *The Unity of the Spiritual Life;* S. Matthews, *The Spiritual Interpretation of History;* H. O. Taylor, *The Freedom of the Mind in History,* especially Chaps. i, viii.

[90] Adams, *op. cit.;* Croce, *op. cit.*

pretation has been sadly neglected by recent historians, though F. S. Marvin, Lynn Thorndike and C. H. Haskins have recently shown its promising potentialities. It has been emphasized incidentally by Professors Lamprecht, Seignobos, Shotwell, Veblen and Robinson in their synthetic interpretation of history, but it remains the least exploited, and yet, perhaps, the most promising of all the special phases of historical interpretation. Its adherents claim a more fundamental causal importance than can be assigned to the economic interpretation, in that they contend that the prevailing state of scientific knowledge and its technical application will determine the existing modes of economic life and activities, and Karl Marx admitted the validity of this contention.[91] The contributions of the economic school of historical interpretation, which was founded by Feurbach and Marx, and has been carried on by a host of later and less dogmatic writers, such as Rogers, Ashley, Schmoller, Loria, Veblen, Simons, Beard, Bogart and Simkhovitch, are too familiar to call for any additional elaboration. In its best and most generally accepted form, this doctrine contends that the prevailing mode and status of the economic institutions and processes in society will, to a very large degree, decide the nature of the existing social institutions and culture. In spite of occasional exaggerations, no phase of historical interpretation has been more fruitful or epoch-making.[92] Immediately related is the geographical interpretation of

[91] H. E. Barnes, "The Historian and the History of Science," *Scientific Monthly*, August, 1920; A. H. Hansen, "The Technological Interpretation of History," *Quarterly Journal of Economics*, November, 1921; T. Veblen, *The Place of Science in Modern Civilization*, Chaps. i–ii; J. M. Clark, "The Empire of Machines," *Yale Review*, October, 1922; C. Richet, *Allgemeine Kulturgeschichte*. The most suggestive survey of history from this point of view known to the writer is L. C. Marshall, *The Story of Human Progress*.

[92] E. R. A. Seligman, *The Economic Interpretation of History*; C. A. Beard, *The Economic Basis of Politics; Economic Interpretation of the Constitution*, Chap. i.

history, which began with Hippocrates and continued through the writings of Strabo, Vitruvius, Bodin, Montesquieu and Buckle. It has been revived and given a more scientific interpretation in the hands of such writers as Ritter, Ratzel, Reclus, Semple, Brunhes, Vallaux, Demolins and Huntington. Since the days of Ritter no respectable historian has dared to chronicle the history of a nation without first having acquired a knowledge of its geography, the significance of which has already been indicated above.[93]

The sociological interpretation of history goes as far back as the Arab, Ibn Khaldun; was developed by Vico, Turgot, Ferguson, Condorcet, Comte and Spencer; and has its ablest modern representatives in Professors Giddings and Ogburn of Columbia, Professor Thomas of the New School for Social Research and Professor Hobhouse of London. Professor Giddings admirably describes this theory as "an attempt to account for the origin, structure and activities of society by the operation of physical, vital and psychical causes, working together in a process of evolution." As a genetic social science, it works hand in hand with cultural anthropology in the effort to explain the repetitions and uniformities in historical development and to formulate the laws of historical causation.[94]

The latest, most inclusive and most important of all types of historical interpretation, and the one which, perhaps, most perfectly represents the newer history, is the synthetic or "collective psychological." According to this type of historical interpretation no single category of "causes" is sufficient to explain all phases and periods

[93] See p. 373.

[94] F. H. Giddings, "A Theory of History," *Political Science Quarterly*, December, 1920; H. E. Barnes, "The Significance of Sociology for the New or Synthetic History," *Historical Outlook*, November, 1922; C. A. Ellwood, "Sociology and the Social Studies with Special Reference to History," *Historical Outlook*, December, 1923; W. F. Ogburn, *Social Change*.

of historical development. Nothing less than the collective psychology of any period can be deemed adequate to determine the historical development of that age, and it is the task of the historian to discover, evaluate and set forth the chief factors which create and shape the collective view of life and determine the nature of the group struggle for existence and improvement. Perhaps the best summary formulation of this viewpoint is that general intellectual conditions at large will normally determine the prevailing attitude towards science and technology. Science and technology create and control the type of economic institutions. These, in turn, gradually build up a set of connective or defensive institutions taking character from the economic, such as social institutions and mores, forms and policies of government, types of legislation and jurisprudence, educational theories, public opinion and expressions of the press, approved modes of conduct, and general *Weltanshauung*. Thus every age has in it the heritage from the past and the germs of future change, but the most dynamic factor is invariably the intrusion of new ideas through contact with outside cultures. The most eminent leaders of this school of historical interpretation, though with widely divergent antecedents and points of view, have been Lamprecht, Ferrero, Tarde, Lévy-Bruhl, Fouillée, Seignobos, Durkheim, Marvin, Robinson, Shotwell, Becker, Preserved Smith and Veblen.[95]

IX. HISTORY AND THE SOCIAL SCIENCES

One of the most conspicuous and promising of the newer developments in the study and teaching of history along the more progressive lines has been the growing

[95] Lamprecht, *op. cit.;* Veblen, *Theory of the Leisure Class; Absentee Ownership,* pp. 1–118; Robinson, *Mind in the Making; The Humanizing of Knowledge;* H. E. Barnes, "Psychology and History," *American Journal of Psychology,* October, 1919.

interest on the part of historians in the social sciences, or, as they have come to be more generally known in teaching circles, "the social studies." This has been but a natural result of the development of a more dynamic point of view in both history and the social sciences. History cannot safely be ignored by social scientists because of the significance of the problems of genesis for all the social sciences. The history of social institutions, economic processes, the state, law and prevailing and approved forms of conduct, are among the most vital phases of sociology, economics, political science, jurisprudence and ethics. It should be the function of all valid and worth while history to furnish ample data on these matters. To be sure, much of the past historical literature has not had this objective in mind and has been difficult to utilize or exploit for these purposes, but we may expect that more and more historians will be guided by the fact that their labors are largely futile if they do not illumine and elaborate the genesis of the various institutions with which we are today familiar. Likewise, if the historian is to describe the evolution of the leading types of institutions, he must have some decent elementary knowledge of the various social sciences which deal with these major institutions. One of the reasons for the futility and irrelevancy of most of the dramatic or episodical political history in the past was the fact that the historians were woefully ignorant of even the crude and formal political science which was at their disposal. Otherwise they would scarcely have wasted their time in spinning out in great detail personal anecdotes and episodes, but would have given attention to those things which illustrate the development of the various constitutions, organs of government, party machinery and other aspects of political life. This does not mean, of course, that the personal element in descriptive history can ever

be ignored, but it does mean that such a discriminating selection of personal activities should be made that those described will be those which have some bearing on various forms of institutional life or illustrate some definite type of personality reaction.

In short, it is as necessary for the historian who is to write intelligently about the history of society, the state, law, or economic life to possess a knowledge of sociology, political science, jurisprudence and economics, as it is that we know something of chemistry to write on the history of chemistry. The only reason why such knowledge of the social sciences has not been generally recognized as a prerequisite for historical writing is the far greater persistence and prevalence of the notion of the adequacy of rule-of-thumb and common-sense methods in history and the social sciences than would be tolerated in the natural sciences. Nothing is at once more humorous and tragic than the insistence by the historian upon intensive training in paleography, diplomatic, lexicography and the principles of internal and external criticism in the effort to secure accurate texts and narratives, and the co-existent ignoring of adequate training in the only group of studies which can make it possible for the historian intelligently to organize and interpret his material. Fortunately, the laudable movement now being promoted by the Council for the Social Studies is designed to terminate this scandalous state of affairs and bring history and the social sciences closer together in coöperation and mutual strength.[96]

Psychology was at one time scarcely looked upon as a social science, but rather as a study of the mental processes of an individual. It was not long, however,

[96] H. Johnson, *The Teaching of History*, Chap. xv; W. H. Mace, *Method in History;* H. E. Barnes, *The New History and the Social Studies.*

before it came to be conceded that no study of individual mental processes can be complete or satisfactory without a consideration of intermental activity, of the interaction of mind on mind in society. This has promoted the growth of a special branch of psychology which concentrates on the relation between minds, namely social psychology, but there is no such thing as individual psychology, strictly speaking, unless one means by this an analysis of the structure of the nervous system. History may derive from psychology most important information relative to the nature of the motivation, execution and limitations upon, human actions and beliefs. The mind is the unifying and integrating factor in the organism and society alike, and it should be obvious enough that it is impossible for a historian to understand the behavior patterns of men in the past without a knowledge of the general psychology of human behavior. As there appears to have been no fundamental change in the psycho-physical basis of the mind or the basic behavior patterns since the dawn of written history, the psychology of man today will apply to the analysis of historical personalities and group situations, provided adequate data are available. Nothing is more apparent in conventional historical writing, particularly in biographical writing, than the pathetic lack of a knowledge of psychology on the part of even many of the more talented literary biographers, with the resulting grotesque explanations offered for motives and actions. It is probably not an exaggeration to state that the average historical biography is fully as weird as Freud's *Leonardo da Vinci,* though in quite a different way. Beyond this matter of a better understanding of personal behavior, psychology, in conjunction with sociology, indicates how individual action is modified by social settings and contacts, as well as by custom and

tradition. But the interchange between history and psychology should be reciprocal and mutually beneficial. History supplies the psychologist with much concrete material illustrative of human action in the past, from the period of savagery to our own day. While the data is almost invariably incomplete, history affords examples of almost every character type which is of interest to the psychologist, and gives at least some slight clue to their behavior patterns under varying conditions. As the sources become more adequate we may hope that ultimately history may serve as a major laboratory for the psychologist.[97]

Inasmuch as men have always lived in groups of greater or less extent and density it is obvious that sociology, or the science of the life and activities of men in groups, will have much of value to offer to history. Sociology attempts to catalogue and analyze the various geographical, biological, psychological and economic forces which produce and determine the place and mode of group or social life. It likewise aims to describe and interpret the results of this group life in social behavior patterns, folkways and mores, and the more permanent institutional controls and guides. Embracing, as it does, both the causes and results of group life, it is the basic social science and the only one which can hope to give a generalized view of the social process and social causation as a whole. As history, in no small part, is devoted to describing the behavior of groups in economic, political, military, æsthetic and religious situations, it should be apparent that the accuracy and insight of the historian

[97] R. S. Woodworth, *Dynamic Psychology;* H. E. Barnes, "Psychology and History," *loc. cit.;* "American Psychology and Modern Political and Social Theory," *Sociological Review,* 1921–2; "Analytical Psychology and History," *Psychoanalytic Review,* January, 1921; *Psychology and History;* K. Jung, *Psychological Types.*

would be materially enhanced by a knowledge of the elementary principles of sociology. On the other hand, history can be of the utmost value to sociology in furnishing it with concrete data concerning both a cross-section of any given society at a certain time, and the dynamic aspects of social and institutional change. While many conventional and literary historians vigorously resent this view of history's function in regard to sociology, there can be no doubt that one of its most fruitful services will come to be the gathering, consciously or unconsciously, of the raw material of dynamic sociology. And the more accurate and discriminating history becomes in its factual content, the more pertinent its findings will be for sociology, and, incidentally, for the illumination and edification of mankind.[98]

Economics, as the science of man's acquisition and utilization of material goods, takes its departure from psychology and sociology. Human motives, as they function in relation to the wealth-getting activities of man, can be properly comprehended only upon the basis of a decently adequate appreciation of human impulses in general. Likewise, group action for material gain and increased productivity requires for a competent analysis an understanding of the general principles and laws of group action. While probably one cannot accept an unqualified statement of the doctrine of the economic interpretation of history, in the sense of complete economic determinism, no sane person can well doubt the very great importance of economic factors in society, which have at some eras apparently possessed a truly determining potency. An economic interpretation of the rise of modern and contemporary society, while doubt-

[98] Barnes, "Sociology and History," *Historical Outlook*, November, 1922; Ogburn, *op. cit.*; Giddings, "A Theory of History," *loc. cit.*

less leaving out many interesting factors, would unquestionably be closer to the truth than any other. And during no period in the history of mankind can the influence of the economic factors in society be ignored or denied. Such being the case, the historian must treat of economic activities, and he can hardly hope to do so competently without some acquaintance with the science of the appropriation and use of material wealth. Particularly is this true of modern and contemporary history, in which an historian without a reasonably good technical equipment in the way of economic theory and analytical power can hope to do no more than produce a very superficial and purely descriptive account of our highly complex economic activities and achievements. And history is not without its potential services to the economist in putting at his disposal the dynamics of economic development. The great contribution of the German school of historical economists, in their reaction against the static dogmatism of the classical school, lay in their insistence upon the relativity and the changing nature of economic institutions, and the resulting economic theory which emerges as an explanation and rationalized justification of every economic system. While the older history has been guilty of amazing superficiality and oversight in ignoring the economic life of the past, because it was absorbed in the dramatic and cared little for the commonplace things of daily life, still much of importance for the economists interested in the genesis of economic motives and institutions is incidentally preserved in the historical documents and narratives that have thus far been produced by Clio's devotees. Unsatisfactory as the available information may be, it is impossible to obtain an adequate perspective for the study of the economic life of the present without the genetic sweep which history

alone can furnish. History likewise provides the economist in many cases with illuminating examples of the varying relations between economic and other forms of social institutions, in other words the relative approximations to economic determinism through the ages.[99]

Political science, or the science of the state, its organs and functions, likewise must be based upon psychology and sociology. The foundations of political obedience must be discovered through a study of the psychology of subordination and habit, of leadership and emulation. Institutionalized obedience, as exemplified by the reactions of the citizens to the state, also requires the intervention of the sociologist to explain the origin of the folkways and mores that cement this particular cake of custom. And life in political groups cannot be interpreted without an understanding of how group life in general has developed and of how the state has gradually evolved out of earlier social institutions. Historians, even of the conventional school, have been more willing to admit the importance of political science for their subject than that of any other social science. The great majority of the distinguished historians of the last century concentrated their attention upon activities in the political realm. Few, however, were adequately prepared in systematic political science. Only the institutional political historians, like Brunner, Viollet and Maitland, were really concerned with tracing the history of political processes. The majority simply contented themselves with a narration of episodes in the careers of politicians or diplomats. The scientific political historian of today recognizes, however, that it is a juvenile procedure to attempt to deal with the history of political institutions without first learning the

[99] E. R. A. Seligman, *op. cit.*; C. A. Beard, *The Economic Basis of Politics*; W. L. Westermann, "Sources and Methods in Economic History," *Political Science Quarterly*, March, 1922.

nature of fundamental political principles and forms of expression. Likewise, the historian, because of the long endurance of the political obsession, can furnish the political scientist with rather more genetic data than he can put at the disposal of any other social science. But, unfortunately, much political history written in the past was so highly dramatized, episodical and anecdotal that much of the vast detail available is of little practical service. What has been said of political science applies equally to jurisprudence, for law is but the expression of the social will as conveyed through the state. As much of the writing of the conventional political historian concerns legislation, he can scarcely afford to remain ignorant of the science of law, while the student of jurisprudence can escape the sterility of the natural law and analytical schools only by grasping the significance and mastering the content of the genetic approach.[100]

Finally, with respect to ethics, while it is no longer regarded as the function of the historian to follow the precedent of Tacitus in passing sharp judgments upon historic characters on the basis of highly personal and subjective ethical concepts, it is desirable that he should know something about the processes whereby standards of human conduct are evolved and enforced. Unfortunately, ethics has no such level of assured achievements as a science as that to which psychology, sociology, economics and political science can lay claim. Almost without exception, all that has passed for ethics in the past is worthless, simply because the prerequisites of any reliable

[100] C. A. Beard, "Politics: A Lecture," *Columbia University Publications*, 1908; M. Smith, "Jurisprudence: A Lecture," *Ibid.*; R. Pound, *Interpretations of Legal History;* and *The Spirit of the Common Law;* E. Jenks, *The State and the Nation;* A. N. Holcombe, *Foundations of the Modern Commonwealth;* C. E. Merriam, *American Political Ideas*, Chap. i; H. E. Barnes, *Sociology and Political Theory;* P. Vinogradoff, *Historical Jurisprudence;* F. Oppenheimer, *The State;* J. Bryce, *Studies in History and Jurisprudence.*

ethical science in biology, ethnography, psychology, and sociology did not exist, and what pretended to be a science of conduct was merely *a priori* philosophizing and guesswork, in most cases the product of the rationalized defense of the bigotry, biases and complexes of the particular writer. A new era is setting in, however, and in such works as those of Sumner, Westermarck and Hobhouse, which supply the illuminating ethnographic material on the variety and genesis of moral codes; in the attempt to base ethical theory on the facts of biology, psychology and sociology by Duprat, Ellis, Dewey, Hayes, and Groves; and in the attack upon the transcendental and Puritanical codes by Shaw, Mencken and their disciples, there is foreshadowed the dawn of a movement to evolve a science of conduct, with which the historian will do well to keep himself in touch. The historians have supplemented the ethnographers in supplying concrete information concerning the various forms of conduct which have prevailed among mankind, though the services of the historians in this connection have been less notable than might easily have been the case. They have rarely been interested in manners and customs, and when they have treated of moral conduct they have not usually been objective, but have judged it by some artificial standard, instead of giving an unemotional exposition. Further, the historians have too often followed the Protestant and Puritan *Ethik* in viewing morality as solely a matter connected with sex. Yet, in works like those by Lecky and Myers, valuable material has been assembled, not too seriously warped by Christian ardor, and there are innumerable contributions by historians to the history of conduct in special periods and areas, even if there has been little conscious effort among historians to develop a scientific division of history devoted to the evolution of various forms of conduct

in relation to sex, property, recreation, and general orientation towards life.[101]

X. NEWER METHODS IN THE TECHNIQUE OF TEACHING AND STUDYING HISTORY

While the major aspect of the progress in historiography since Ranke has consisted in the rise of new and sounder tendencies there have been important improvements in the earlier and traditional lines of development. In the first place, while little has been achieved that was not implicit in the methodological system of Ranke, there have been some important improvements in both the critique and the technique of historical methodology since Ranke's time. The fundamental principles of historical criticism have been refined and systematized in the admirable works of Bernheim, Wolf, Langlois and Seignobos, so that the beginner may now have at his disposal a more extended discussion of all phases of historical method than Ranke was ever acquainted with. There has also been a great improvement in the mechanical accessories of historical scholarship. Elaborate bibliographies of the historiography of the various countries have been prepared by Paetow, Langlois, Molinier, Monod, Dahlman-Waitz, Gross, Williams and Channing, Hart and Turner. These are supplemented by current lists of the new works which appear, published in the various technical historical journals, and the student is thus enabled to keep thoroughly abreast of the literature in his field. Remarkably thorough and accurate guides to the vast collections of sources of national and ecclesiastical history which were gathered during the 19th century have been provided by Potthast, Chevalier and others, and the modern student

[101] W. G. Sumner, *Folkways;* L. T. Hobhouse, *Morals in Evolution;* J. Dewey, *Human Nature and Conduct;* P. V. N. Myers, *History as Past Ethics.* Cf. H. E. Barnes, *The New History and the Social Studies,* Chap. ix.

may locate in a few minutes in any great library sources which might have occupied any earlier generation months of fruitless searching. Again, archives, public and private, have been opened more freely to the historical scholar, though he is still excluded from the more recent material in all countries save Russia, Germany and Austria. Guides to these archives have in many cases been carefully prepared. Nor should one neglect to point out the great contribution to efficiency, expedition and accuracy in historical investigation which has come about from the general introduction of card catalogues, filing systems, loose-leaf note-books and elaborate schemes for indexing and cross-reference. This important type of innovation and improvement has been chiefly the work of American scholars, who far surpass those of any other state in mechanical efficiency.[102]

As important as the advances in bibliographic and other mechanical aids has been the great extension and improvement of the teaching profession in the department of history. Under the guidance of trained scholars, the members of historical seminars, though of mediocre literary talent, may contribute more exact knowledge to the field of history in their abstruse and esoteric dissertations than was contained in many volumes of the older and popular literary history. In general, there has been little change in the external forms of historical instruction in the last generation. The lecture and seminar methods are still the most widely used for all types of advanced instruction. A more punitive method is frequently applied to elementary students, who are shamelessly and impertinently interrogated by instructors to discover the degree of their parrot-like capacity to repeat faithfully

[102] E. Bernheim, *Lehrbuch der historischen Methode;* Langlois and Seignobos, *Introduction to the Study of History;* J. M. Vincent, *Historical Research;* A. Johnson, *The Historian and Historical Evidence;* E. W. Dow, *Principles of a Note-system for Historical Studies.*

portions of the text-book. Perhaps the only significant innovation has been the introduction of the so-called "project-method," which is based upon the salutary notion that the teaching of the history of the past should be directed primarily toward indicating its bearing upon the leading problems of today. While capable of quite grotesque exaggerations and distortions, this method, when cautiously used, gives more promise of making the study and teaching of history vital than any other which has thus far been proposed. It has, however, made little or no progress in the universities and colleges, where the professors have been able to resist successfully any threat to make history less dignified by rendering it more practical and serviceable in the education and guidance of mankind.[103]

While there can be no doubt that the science of history has profited enormously by that organized activity and coöperation which has been promoted by university historical instruction, like all forms of organized and professionalized effort, it has its negative and deplorable side.[104] Particularly important in this respect is the operation of this situation in retarding the progress of newer concepts as to the nature and purpose of history, and the modes of teaching it most successfully. This is mainly due to the fact that the great revolution in the attitude towards history has come since the older historians now teaching received their training, and has for the most part been the work of younger men. But these younger men must perforce teach in departments presided over in many cases by historians with views two-score years more venerable and antique than those harbored by their younger and more progressive subordinates. As docility

[103] It is probably true that more originality in teaching history has been exhibited by high school and normal school teachers in the last decade than by university and college teachers.

[104] Graham Wallas, *Our Social Heritage*, Chap. vi.

and discipleship are the chief prerequisites for university and departmental promotions, it is apparent that most discreet assistant-professors will find other places for the expression of their heterodoxy than the classroom, and in many cases will wholly repress their convictions on historical method and interpretation. A very frequent expedient utilized further to hamstring progressive instructors is close supervision of the type of courses which they are allowed to offer, in this way making it well-nigh impossible to introduce novel material. While God may ultimately remedy this situation, it is not without significance that far more than half of the men who have shaped and are shaping the new history are not now teaching in university departments of history. Another phase of this technique of impressing upon progressive young historians the virtues of solidity and stability of viewpoint is the arrangement that in the award of official honors in historical associations preferment and precedence shall obviously and ostentatiously go to those whose notions on the subject of history have been egregiously respectable, and distinguished by a fine sense of propriety and eminent good taste. This situation in regard to history, is, of course, not in any sense unique, but is characteristic of university instruction in general, where since the days of Abelard formal success has normally gone to the conformist with no troublesome new ideas, or to the potentially progressive person whose good sense and discretion have led him into efficient practice of the remarkably pertinent and helpful precept lifted by Descartes from Ovid, *"Bene vixit qui bene latuit."*

SELECTED REFERENCES

Barnes, H. E., *History: Its Rise and Development. Sociology and Political Theory. The New History and the Social Studies. History and Social Intelligence.* (Ed.) *The History and Prospects of the Social Sciences.*

Beard, C. A., *The Economic Basis of Politics.*

Croce, B., *History: Its Theory and Practice.*
Dunning, W. A., "A Generation of American Historiography," in *Annual Report of American Historical Association,* 1917.
Gooch, G. P., *History and Historians in the Nineteenth Century.*
Holcombe, A. N., *The Foundations of the Modern Commonwealth.*
Johnson, A., *The Historian and Historical Evidence.*
Johnson, H., *The Teaching of History.*
Lamprecht, K., *What is History?*
Laski, H. J., *A Grammar of Politics.*
Mace, W. H., *Method in History.*
Myers, P. V. N., *History as Past Ethics.*
Odum, H. W., *Masters of Social Science.*
Ogburn, W. F., *Social Change.*
Pound, R., *Interpretations of Legal History.*
Robinson, J. H., *The New History. Mind in the Making. The Humanizing of Knowledge. The Ordeal of Civilization.*
Schlesinger, A. M., *New Viewpoints in American History.*
Seligman, E. R. A., *The Economic Interpretation of History.*
Teggart, F. J., *Prolegomena to History. The Processes of History. The Theory of History.*
Thomas, F., *The Environmental Basis of Society.*
Tryon, R. M., *Methods of Teaching History in the Secondary Schools.*
Wissler, C., *Man and Culture.*

INDEX

Accuracy, economics and, 221
Acquaintanceship, 101
Action, 19, 20, 35
  inherited tendency toward, 26
Activity, 10, 12
  conditioning of, 40
Adaptation, 17, 18, 137, 138
Adenoids, 150
Adjustments, 10, 32, 36, 125, 136
Adult, 22, 119
Agricultural economics, 294
Alcoholic psychoses, 133, 134
Alertness, 119
Allport, F. H., 30
Amalgamation, anthropology and problem of, 93, 94
American Geographical Society, 152
Anatomy, 43
Anderson, B. M., 259, 274
Animal nature, 17
Anthropogeography, and environmentalism, 165–175
Anthropological interpretations, 80
Anthropologists, 17, 20
Anthropology, 13, 30, 50–96
  claim as a science, 61
  consequences as museum study, 53
  contribution to history, 347–359
  progress of, 192
  threshold of history, 331
  usefulness of, 90, 95
Anthropometry, 83
Archeology, and history, 359–361
Area, 186
  science of, 183
Aristotelian process, 310, 311
Army, as producer of insanity, 125, 126
Army tests, 111–117
  conclusion of, 119
Art, historians, 391
Association, coöperation as element of, 33
Attention, 14
Attitudes, "pure science," 47
  new, 36
  universities' hesitant, 60
Awareness, 10

Bacteriology, and economics, 235
Baker, O. E., 163
Baldwin and Stecker, 152
"Balk line" curve, 287, 288
Balz, Albert G. A., 26
Banking, free competition, 23
Barnes, Harvey Elmer, 48, 328
Barrows, 168
Behavior, 12, 15, 99, 256, 259, 317
  and history, 405
  categories for group, 43
  collection of data on, 60
  determined by culture, 20
  group, 10
  influence of experience on, 22
  influence of habit on, 26
  instinct and, 18, 19
  of man in relation to group, 16
  psychology and theory of, 104
  seeking examples of, 62
  tendency of controversy over, 25
  theory of behaviorism, 20
  types of interest to anthropologists, 63
Behaviorism, 2, 20, 282
  worth of, 260
Bernard, L. L., 21, 28
Binet tests, 106, 110
Biological concepts, and social processes, 346
Biology, and anthropology, 63
  and behavior, 21
  and history of population, 93
  Balz's acceptance of, 26
  conception of conflict, 33
  determining behavior, 22
  evolution, 173
  factors necessary for study of social life, 39

Biology, historical problems, 345
hyper-Darwinian, 31
influence of, 2, 3
instinct and, 19, 20, 21
position in regard to behavior, 36
problems for, 86
scientific aspects, 38
Birdseye, C. H., 163
Blache, Vidal de la, 156, 180
Blanchard, 195, 196
Bodin, 311, 312
Bogardus, E. S., 38, 48
Boundaries, and political geography, 208
historical viewpoint, 391
Braun, G., 193
Brinton, Daniel, 54
Bristol, L. M., 49
Brunhes, 171, 180, 188, 209
Bryan, Kirk, 163
Bryce, 324
Building Gild, 301, 302
Bushee, F. A., 28, 38
Business, 272
barometrics, 290
cycle, 233, 284, 285
depression, 292
Business schools, significance to economics, 216

Capacities, inherited, 26
forms of behavior, 138
projection on "terminological plane," 27
Capital, and land, 255
function of, 246, 247
Carlyle, 373
Carver, 2
"Case study," 8, 34, 45
Cassel, Gustav, 257
Catastrophe, effect on mental operations, 127
Cattell, J. Mc Keen, 139, 148
Causation, social, 40
Cause and effect, 236
sequence of events, 248
Changes, cultural, 13
in group, 36
Changes, in institutions, 238
Changes of procedure in economics, 220–222
principle of, 344
social, 31, 78
Chapin, 45
Character traits, maladjustments in, 125
Characterologist, the, 147
Children, 118
and instincts, 105
bright, 149–151
Chisholm, G. C., 204
Chorologic position, the, 177, 182
Chorology, 175
Christian, 360
historical, 366, 373
Christianity, 6
reaction of Indian to, 59
Church, question of race, 91
Civil life, hysteria in, 130
Civilization, 12
adjustment between instincts and, 23, 24
local, 83
Clark, J. B., 255, 263
Clark, John M., 213
Climate, 167, 174
influences of, 275
Clow, 48
Co-adaptation, 36
Collectors, 55
antiquarian bias, 59
service of, 56, 57
Commercial geography, 204
Communication, definition of, 7
emphasis on, 43
influence on sense of unity, 101
significance of, 7
Competition, and economics, 219
Competitive market, the, 239
Complexes, 21
Composite method, 43
Concepts of sociology, 33-38
determination of, 33
Conflict, relation of coöperation to, 31
as basis for social interaction, 32
of the market, 239
Conklin, E. G., 38
"Connection," principle of, 171

Consciousness, 6
individual and social, 5
of identity, 11
sense of unity in, 100
"Consciousness of kind," 10
"Consumption," 296
Control, 14, 307
in economic study, 230
Cooley, Charles Horton, 4, 5, 34, 41, 274
Coöperation, 301
influence of intelligence levels on, 105, 124
in the World War, 136
relation of conflict to, 31
the building principle, 32
Cosmologic geography, 176
Cosmologic position, 175, 177, 184
Cosmos, 342
Costs, 255, 287
Couvade, 62
Crime, relief for, 139
Criminals, 120
development of habits of, 121
Criminology, 314
Crises, 14, 98, 99
Croly, Herbert, 43
Crusades, 391, 392
Cultural anthropology, 3
"Cultural determinism," 13
Cultural forms, 193
Cultural geography, 154-212
Cultural landscape, transformation of, 201
sequences of, 204
Cultural progress, 349, 363, 364
"Culturalism," 15
Culture, 13, 14, 17, 23, 24, 26, 27, 34, 35, 43, 57, 58, 73, 74, 78, 79, 80, 83, 86, 94, 356, 374, 380
contribution of anthropology, 84
determines behavior, 20
"race" as explanation for, 39
similarities and parallels, 352, 353
Culture concept, 12, 15, 16, 75
Culture process, remains of, 65
Cultures, 346
Cultures, rise and fall of, 346
"Culture trait," 76
Custom, 6, 9, 12, 64, 68
and economics, 219
definition of, 35
significant in social behavior, 26

Darwin, 18
Darwinism, 79, 347, 348
question of race, 357
Data, classifying of, 69
collection of, 65
regional, 185
Davenport, H. J., 255, 262
Davis, W. M., 158
Defectives, 109-117
in United States Army, 111-117
Delinquents, 104
feeble-mindedness in, 120
Dementia præcox, 133, 134
Democracy, 6, 323
Description, quantitative, 256
"Desires," synonymous to "social forces," 28
Determinism, 13, 20, 39, 171
economic, 40
hereditary, 27
in geography, 165, 178
theory of "social determinism," 30
Development, 7
cultural, 15
of anthropology conditioned, 55
of superior children, 149
significant primary groups in, 6
Dewey, John, 25, 29, 274, 313
Differences, racial, 140
Diffusion, law of, 83, 84, 89
Discontent, 24
Dispersal, centre of, 71
Distribution, 62, 66, 84, 269
mechanism of, 71
productivity theory of, 239
significance of, 70
Draft, exemption from, 122
testing intelligence of, 112-114
Dunlap, Knight, 27
Durkheim, 14
Dynamics, 254

Eclectic, the, 258
Economic criticism and adaptation, 250–258
  democracy, 298
  geography, 204
  life, changes in, 224
  psychology, 277–283
  relations 296
  science, 218–224
  statesmanship, 297
  thought, 224, 231
  values, 274, 275
"Economic law," 232
Economics, 3, 42, 213–306, 390
  branches of, 217
  descriptive, 283–291
  development in, 213–327
  function of, 289
  general characteristics of, 258–264
  relation to history, 406
  study of, 214–218
  summary of effects of, 226
Economists, professional, 217
Edie, L. D., 262
Educative process, 48
  means of progress, 41
Efficiency, group and individual, 30
Ellwood, Chas. A., 1
Ely, 275
Emotion, 98
  and World War, 102, 103
  emphasis on, 43
Encyclopedist position, 184
Engineering, 290
Enterprise, theory of, 233
Entrepreneur, 252
Environment, 20, 21, 170
  as basis for geography, 173
  of economic thought, 224–229
  relation to development, 376–378
Environmental factors, 376
  in society, 375
  relation of, 169
Environmentalism, 165–175
  form of predestinarianism, 174
  value in geography, 172
"Equation of exchange," 29
Equilibria, economics of, 219
Equilibrium, 237
Eras, chronology of, 366–373
Ethics, 1, 235, 390
  purpose of, 46
  relation to history, 409
Ethnology, 53, 313
Euro-American culture, 80
Europe, economic delirium, 229
Evolution, organic, 18
  and history, 34
  not biology, 173
Evolutionary hypothesis, 347
Exchange, free, 228
  national interference in, 230
Executive, the, 145
Experience, influence on habit and behavior, 22
Experiment, 43
  method in sociology, 2
Exploration, 52, 201
  basis of anthropology, 57
  geographic societies, 160
Extremists, 19

Face-to-face groups, 11, 34
Fads, 41, 134
Family, 6
  and sense of unity, 98
Faris, Ellsworth, 30, 42
Fauna, 71
Febvre, L., 170
Federal Reserve System, 232
Feeble-mindedness, 106, 109–112, 114–117
  in delinquents and criminals, 120
Field-work, 57, 60
  nature of, 57
Field-worker, 73, 76
  contribution to social sciences, 61
Finney, 48
Fisher, Irving, 291
Fleure, J. H., 169
Folklore, 88
Follett, Mary P., 37, 42
Forces, economic, 245
Fossils, 66
Freudians, 23
Frey, John, 292
Functional method, 289

Galpin, 47
Galton-Pearson school, 345
Geist, 373
Geographers, 177
  chief interest, 178
Geographic societies and bureaus, 160–165
Geographical distribution, 61
  cause, 64
  law of diffusion, 85
Geographical factors, in historical development, 373–382
Geography, 154–212
  academic status, 154
  antipathy of historians, 379
  chief views, 183
  classification of, 182
  future task, 179
  method in, 180, 210–212
Geology, influences on anthropology, 53
George, H. B., 199
Gerland, 171
German school, contribution to economics, 407
Giddings, Franklin H., 10, 32, 44
Gild movement, 301
Gillette, 47
Glands, psychology and work of, 107, 108
God, 344, 362, 363
Goddard, Doctor, 110
Goldenweiser, A. A., 13
Government, 312, 315
  and economic processes, 218, 231
  political control, 308
Gradmann, 197
Graphology, 148
Gregariousness, 11
  instinct and, 19
Group, 22, 32, 33
  as real as individual, 30, 31
  behavior, 10, 11, 13, 39, 43
  biological heredity in, 36
  "case study" of, 34
  culture, 16
  life, 5, 12
    value of participation, 7
  mind, 16, 99
  nature, 5, 16
Gumplowicz, 31
Guyot, 158
Habit, and instinct, 21
  emphasis on, 25
  formation, 14
Hall, G. Stanley, 345
Hankins, F. H., 49, 178
Hayes, E. C., 9, 29, 40, 46
Hedonism, 252
Hegel, 313, 385
Herbertson, 169
Herder, 165, 373
Heredity, 6, 17, 20, 36, 85
  anthropologist's problem, 66
  emphasis on, 25
  influence on behavior, 21, 22
  of feeble-mindedness, 108
  of reaction tendencies, 26
  racial, 39
Herodotus, 332, 333
Hettner, 182, 185, 187, 188
Historians, nationalistic, 339
Historic eras, contribution of archeologists to, 360
  periodizing of, 366–373
Historical background, 74.
  development, 361
  geography, 199
    concern of, 203
    geographical factors in, 373–382
  writing, 330–341
    history of history, 328–330
Historico-psychological analysis. 354
History, 39, 73, 328–415
  affiliation with economics, 215
  and archeology, 359–361
  and social sciences, 401–411
  chronology, 366–373
  expansion of interests, 382–393
  human, 32
  in development of sociology, 49
  interpretation of, 393–401
    schools of, 397
  methods, 211, 411–415
    in anthropology, 63
  relation of psychology to, 404
  significance of anthropology, 348
Hobbes, 31
Hobhouse, L. T., 37, 46, 313
Hobson John A., 263, 264, 268
Hocking, W. E., 27

Hoover, in economics, 290
Hoxie, 288
Human geography, 159, 178
  and regional inquiries, 181
  field of, 190
Human mind, in twentieth century, 234–237
  nature, 5, 8, 16, 17, 104
  society, evolution of, 17
Humanists, 335
Humboldt, Alexander v., 154, 176, 185
Huntington, Ellsworth, 167, 174
Huxley, 184
Hysteria, 130
  at the front, 129

"Ideal competition," 266
Ideals, origin of, 6
Imagination, 43
Immigration, 80
  problems for anthropologist, 92, 93
Imperialism, 392
Impulses, 25, 27
  instinctive, 19
    inborn and, 20
  repressed, 24
Indian, 57, 79
  failure to study reactions of, 59
Individual, 5, 10, 12, 14, 20, 32, 35
  as real as group, 30, 31
  behavior of, 22
  function of thyroid, 108
  industry's reaction upon, 23
  value of variant, 27
Individualism, in economics, 222, 223
  vs. paternalism, 213
Induction, 46, 303
  and deduction, 45
Inductive verification, 251
Industrial Revolution, 224, 364
Industrialism, 253, 266
Industry, 227, 268, 297, 300, 390
  and instinct, 19, 23
  conditions of, 224–229
  doctrines of, 270
Insane, in institutions, 130
  increase in, 130, 131
Insanity, among soldiers, 126
  in war and peace, 125
Instinct, 20, 104
  as basis of social life, 23
  biological heredity, 36
  controversy over, 18, 25
  in animals and children, 105
  neural structure theory of, 21
  sociology and, 18–27
"Instinct of workmanship," 19
"Instinct school," 278, 279
Institutions, 90, 308
"Institutional economics," 260, 273
  life, 350, 365
  viewpoint, 271–277
Intellectual history, 390
  leader, 146
Intelligence levels, 105, 106
  and function of glands, 108
  effect on coöperation, 124
Intelligence tests, 109–112
Interaction, 10, 36
Intercommunication, 11, 34
  and continuity of group, 36
  means of transmitting culture, 35
  web of, 7, 12
Interstimulation and response, 4, 7, 10, 34
Inventions, and conventions, 87
Investment, 266
Involution melancholia group, 133, 134
Isms, 134

Josey, 21
Juristic viewpoint, 314, 315

Kant, 154
Keltie, Scott, 161
Kirchoff, 169
Knight, F. H., 258
Kroeber, 13, 30
Kuhlman, 111, 118

Labor, 298
  parties, 231
Laisses-faire theory, 104, 309
Lamprecht, 373
Land, 255
Länderkunde, growth of, 185

Landscape, 185, 186, 188, 197
cultural, 190, 200, 201
economic, 205
physical, 189, 202
political, 208
reconstruction of, 202
working out forms of, 191
Language, 12, 56
function of, 7
genetic classification, 180, 181, 182
Laws, economic, 255
of diffusion, 83, 84, 89
of habituation, 100
social behavior, 15
Leaders, 144–153
two types, 145
Learning process, 17
as builder of culture, 22, 35
and social progress, 40
Legal-political conditions, in economics, 231
Legal rights, 275
science, 311
Legislation, 324
Leviathan, the, 228, 229
Lichtenberger, J. P., 49
Life, influence of primary groups, 6
coöperation principle of, 33
Like-mindedness, 11
Likeness, 10
Limitations, resentment against, 88
Lindeman, E. C., 33, 42, 43
Linguistic classification, 82
Linguistic studies, 55
Literature, historians, 390
Livy, 333
Load-factor, 256
Lowie, 13, 30, 42

Macaulay, Thomas, 149
Mackinder, 157, 168, 193
Maladjustment, 124
ill effects of, 138
Man, and anthropology, 347
as terrestrial agent, 193
organic history of, 65
Manic-depressive group, 133, 134
Maps, 211
Marett, 347
Marginal cost, 288
economics, 237, 239, 243, 257
summarized, 253
utility, 237
Market, the, 239, 274
Marx, 250
Marxian socialism, 298
Mathematical economists, 257
geography, 179
McDougall, 19
Mecklin, 46
Mental disorders, 115
"Mental patterns," 35
Mental tests, 107–125
Merriam, Charles E., 307
"Metaphysical concept," 21
"case study," 45
development in history, 411, 415
economics, 220, 235
Methods, 44, 289
composite, 43
geographical, 180, 210, 212
of anthropology, 74
political, 310
"social survey," 44
Michotte, 171, 183, 188
Middle Ages, 334
Milieu, 180
Militarism, 210
Mill, John Stuart, 149, 219, 313
Mind, "larger mind," 5
human, 15
social and group, 99
Mitchell, W. C., 261, 284, 292
Money, 29, 252
Morale Division, 102, 103
Moore, H. L., 285
"Mores," 17
Morgan, 54, 82
Morons, definition of, 113
in institutions and abroad, 118
Moronity, criterion of, 115
Mortality, in feeble-minded, 116
Mother-in-law taboo, 69
Motives, and instinct, 19, 20
Moulton, H. G., 266
Museum, interests, 55
bias, 90
dominance in anthropology, 55
supporters of research, 54

Natural selection, as determining behavior, 17
Naturalists, 60
Nature, training of original, 24
Naturrecht, 312
Neighborhood, 6
Neo-Classicism, 259
Nervous system, 27
Neural structure, 21
Neurasthenia in United States Army, 129
Neurological theory, 42
"Normal," 243, 244

Objectives, geographical, 180
in anthropology, 68
Objectivism, 41, 303
retarding influence of, 42
Observation, 2, 8, 43, 49, 186
and introspection, 234
in geography, 186, 210
limits of, 2, 58
need of unity in, 187
Occupational levels, 121, 122
Ogburn, W. F., 23
Organic evolution, and sequence of time, 64
influence on social evolution, 17
relation of human behavior to, 16
history, 66
life, primary principle, 345
resemblance, 11
Organisms, and society, 346
behavior of, 21
inventive process resides in individual, 87
terrestrial surface as an, 181
Organization, 56
communal, 310
dominance of instinct, 23
Orientation, 1, 241–250
unitary, 183–190
Orthodoxy, 254

Pantaleoni, 257
Paradise, 362, 363
Pareto, 2, 257
Parker, Carlton, 19, 279
"Particularism," 1, 3
need to escape from, 41
reaction against, 4
Passarge, 183, 189, 191
Paternalism, 144
vs. individualism, 213
Peace, 229
relation to economics, 231
Pearson, Karl, 90
Periodization, of history, 367–373
Perry, 23
Peschel, 155
Peters, 48
Phenomena, 14, 15
conditioning of, 29
Philosophy, 15
historians of, 390
one-sided, 39
Phrenology, 147
Physical appearance, and social unity, 141
of leaders, 147
Physical geography, 178
sciences, 2
Physiocrats, 222
Pigou, A. C., 257, 265
Play group, 6
"Pluralistic" behavior, 10
Political control, 307, 308
geography, 207, 210
history, 389
obsession in, 384–386
inventions, 326
parties, 342
psychology, 318–323
Political science, 3, 307–327
and history, 408
method, 310
new fields of inquiry in, 324–327
theory, 320, 321
Politics, advances in, 321, 322
Pollard, A., 394
Population, per cent. of morons, 116
studies of, 194
Powell, J. W., 53
Prejudice, 141
Prices, 286, 290, 294
"Primary conflict," 32
Primary groups, 8
influence on modern life, 6
manifestations of, 5

Production, 293
corporate, 226
distributional studies of, 205
index numbers of, 233
social, 252
Professions, 122
Progress, 214, 365
assurance of, 152, 153
correlated with natural science, 398
educative process of, 41
influence of impulses and habits on, 26
phenomena of social, 97
Psychologists, 16
Psychology, 1–3, 13, 14, 18, 20, 26, 31, 48, 63, 86, 97–153, 278
and anthropology, 63
and economics, 235, 272
and ethics, 47
and political science, 317–323
social, 38, 403, 404
"Pure science," 47

"Race," 39
nations and question of, 91
service of anthropology to, 355
Racial differences, 140
types, 72
Racialism, 40
Rationalism, 338
"Rationalizations," 280, 281
Ratzel, F., 155, 166, 184, 209
Ratzenhofer, 31
Reactions, 98
common emotional, 101
doctrine of instincts and, 20
Reason, 313
Reciprocal relation, 170
"Reflection," 235
Regional geography, 190, 381
and historical geography, 195, 200
studies, 188
"Regionalism," 210
Regions, classification, 191
Religion, 79
and history, 333, 336, 337, 383–385
service of anthropology to, 355
sociology of, 48
Research, 32, 70, 79
spirit of, 56
Resources, 265
Responses, 71, 309
and folklore, 89
circular type, 31
"innate," 72
Reuter, E. B., 39
Richthofen Baron von F., 155, 182, 187
Ritter, Carl, 154, 165
Rivalry, as cause of conflict, 32
Rivers, W. H. R., 41
Robinson, James Harvey, 382, 394
Roman law, 311
Romanticism, 338, 386, 387
Ross, E. A., 32, 35
Rousseau, 23
Royal Geographical Society, 157
"Rural sociology," 47
Russell, Bertrand, 313

Sabotage, 247
Salesbury, 158, 163
Sauer, Carl O., 154
Schlüter, O., 169, 183, 187, 188, 197
Schools, business, 215
Schumpeter, 254
Science, 248
according to Veblen, 248
geography as a, 186
history as a, 394, 396
"Secondary" conflict, 32
Sectional geography, 381
Semple, Ellen, 158, 167, 197
Senile psychoses, 133, 134
Service, 270, 271
Sex, 21
and behavior, 21
Shiftlessness, 279
Sims, 2
Slavery, and question of race, 92
Sleep, 151
Slichter, S. H., 289
Small, A. W., 31, 49
Smith, Adam, 229, 233
Smith, J. Russell, 193
Snedden, 48
Social attitudes, 34, 43
causation, 13, 14

Social attitudes, Darwinism, 32
"determinism," 30
forces, 27, 29
interaction, laws of, 15
life, 23, 25
and instinct, 19
complexity of, 25
composite method of study of, 46
mental side of, 1, 8
synthetic view, 41
mind, 99
"order," 36
origin, problem of, 59
phenomena, 97
two groups of, 97
Social process, 9–11, 14, 15, 17, 18, 34, 39, 48, 346
as explanation of individual psychology, 30
influence of conflict on, 31, 33
psychical and physical aspects, 42
"social progress," 37
a learning process, 40
Social science, and anthropology, 58, 96
and geography, 212
and history, 400–411
and statistics, 44
connection with biology and psychology, 3
contribution of field-workers to, 61
distinguished from theory and service, 175
shortcoming of, 74
Social unity, 140
barrier to, 140
values, 5, 7, 34
view, assumptions of, 262–264
Socialism, 299, 302
Society, 12, 169, 346
cause of discontent in, 24
evolution of, 17
Sociological theory, 41
Sociology, 1–49
and ethics, 46
behavior mechanisms, 47
"determinisms," 39
method in, 28, 44, 49
"pure," 41
Sociology, relation to history, 406
"Sociophores," 7
Solidarism, 263, 264
Somatic grouping, 81
Specialization, three lines of, 58
Spencer, Herbert, 342, 343
Sprague, O. M. W., 233
Stanford-Binet tests, 112
State, caritative function of, 309
Static economics, 219
Statistics, and social science, 44
children's, 150
feeble-mindedness, 109–112, 114–117, 120
increase of insane, 131, 132, 133
Stimulation and response, 20
relief from crime, 140
Strabo, 175, 185
Subjective, oneness with objective, 42
Survey, the, 316–318
method in, 44
Syndicalism, 300
Synthesis, of social facts, 41
Synthetic view, 4

Taylor, F. M., 256
Taylor, Griffith, 167
Technicians, 249
Tendencies, and instinct, 19
economics, 220, 258–264, 303–305
projection of inherited, 27
sociological, 1,4
"Terminological plane," 27
Terrestrial unity, 180
"Theorists," economic, 216, 217
Thomas, Franklin, 170
Thorndike, 279
Thucydides, 333
Thyroid, 107, 108
Time sequence, 65, 67
and historical method, 63
distribution of, 62
justification of emphasis on, 68
Todd, A. J., 40
Tonsils, 150
Trade, 297

Tradition, 2, 6
  definition of, 35
Traits, 25, 69, 72, 76, 77, 351
  character and maladjustment, 125
  habit formed, 138
  method of studying, 68
  unstaple, 140
"Trait complex," 76, 77, 79
Transcendentalism, 343
Tribal culture, comparisons of, 76
Tribes, 66
  appearence of customs, 64
Trotter, 19
Tylor, E. B., 13

Unfulfilment, in less intelligent, 137
Unity, sense of, 97, 98
"Universal pattern," 22
Universities, geographic chairs, 155
  reaction to anthropology, 60
Unrest, 134
  "apostles of unrest," 135
  relief for, 139
Urbanization, 227
Utilitarianism, 222, 223
Utility, 237, 238
"Utopian socialism," 298

Vallaux, C., 181, 189, 202, 209
Values, 36, 295
  economic, 274
  social, 6, 263
  yardstick, 267
Variation, 17
Veblen, 242, 244, 364
Veblen school, 241–250
Vice, and sense of unity, 102
Victorian era, 236
Vidal, 171, 192
Vogt, 47

Wages, 276, 277, 292, 293
Wagner, Hermann, 155, 184
Wallas, Graham, 24, 27, 319
War, 23, 365
  effect on insanity, 125
  effect of national interest, 128
  relation to economics, 229–231
Ward, Lester F., 41
Watkins, G. P., 252
Web of intercommunication, 7, 12
Weight, of normal child, 152
Welfare, 268
  economics, 260, 264–271
Wells, H. G., 350
"Where," quality of geography, 184
Williams, J. M., 31
Wimmer, J., 200
"Wishes," synonymous to "desires," 28
  disappointment in, 137, 139
Wissler, 13, 22, 50
World War, 111, 339
  and political geography, 209
  as a cause of unrest, 136
  effect on mental disorders, 134
  sense of unity in, 102
  Stanford-Binet test, 112

Youth, *laissez faire* attitude, 104

Znaniecki, 15