THE SCIENTIFIC STUDY OF HUMAN SOCIETY

BY

FRANKLIN HENRY GIDDINGS, PH.D., LL.D.

Professor of Sociology and the History of Civilization in Columbia University; Fellow of the American Statistical Association; Member of the National Institute of Arts and Letters

CHAPEL HILL
THE UNIVERSITY OF NORTH CAROLINA PRESS
LONDON: HUMPHREY MILFORD
OXFORD UNIVERSITY PRESS
1924

COMPOSED, PRINTED AND BOUND BY
The Collegiate Press
GEORGE BANTA PUBLISHING COMPANY
MENASHA, WISCONSIN

Professor Giddings' *The Scientific Study of Human Society* was published too late last year for more than a preliminary examination and use in the classroom, but during the short time it has been out the book has received remarkable commendation.

This is a book which no sociologist abreast of the times will fail to read. No advanced student of sociology can afford to miss it if he is to make the newer scientific method a part of his equipment. At the same time it is an admirable introduction for the newer students of sociology who wish to get at the very start the right concept of the science of society. Some of the comments about the book are given below:

PROFESSOR E. A. ROSS of the University of Wisconsin: "Professor Giddings is a sturdy champion of right method in social inquiry and his little book *The Scientific Study of Human Society* deserves to be read slowly and prayerfully by all those aspiring to contribute to the building up of our young science. Studies and method have the name of being dry, but Professor Giddings with his wealth of allusion and his charm of style is able to make his book easy to read."

PROFESSOR CHARLES A. ELLWOOD of the University of Missouri: "I consider Giddings' *The Scientific Study of Human Society* an indispensable book for the beginner in Sociology. It is a clear presentation of the value of quantitative methods in sociological study. We are expecting to use it in our classes in the University of Missouri."

PROFESSOR L. L. BERNARD of the University of Minnesota: "Professor Giddings' latest book has been quite a surprise in some ways. Although it deals with some of the most weighty problems in sociology and in scientific method generally, it is as interestingly written as a newspaper article, but with a good deal more attention to accuracy than most newspaper articles are written. The first chapter is the best summary of social forms in brief compass which I have ever seen."

PROFESSOR HOWARD B. WOOLSTON of the University of Washington: "Professor Giddings' *Principles of Sociology* registers a high point in American scholarship of the last generation. His *The Scientific Study of Human Society* illustrates methods whereby investigators of tomorrow may establish new levels in the knowledge of group life. This work offers striking evidence of the development of social science, and of its author's leadership in such promotion."

PROFESSOR MALCOLM M. WILLEY of Dartmouth College: "This new volume embodies a point of view that must be generally accepted if sociology is ever to become a science, as distinguished from mere social philosophy. No one appreciates more fully than does Professor Giddings the need for precise, quantitative research in the social sciences. This need, and the steps to be taken if it is to be met, he develops in *The Scientific Study of Human Society,* and does so with the same power of analysis that characterizes all of his writing. The book should prove useful as a manual, but it is much more than that; it is a compact statement of essential principles."

PROFESSOR JOHN L. GILLIN of the University of Wisconsin: "Professor Giddings has done a real service to sociology in his recent book on *The Scientific Study of Human Society.* It presents to us an entirely new methodology in the study of sociology. I am using the book for that reason in my seminary."

PROFESSOR FRANK H. HANKINS of Smith College: "It is a book that one will not read for pleasure. It must be studied, analyzed and pondered over; but it will repay the effort. Its style is extremely brief and compact; so much so that in many places the exposition would be greatly improved by expansion and illustration, especially the latter. There are numerous logical distinctions which are of interest and significance as studies in the logic of scientific method. The concluding chapters furnish an outline for a study of the whole technique of social surveys and statistics. And as a sort of link in the whole discussion there is at the center a chapter on "Social Telesis" in which the question is raised whether, after all is said and done, society can by conscious volition do anything to control its own destiny. . . . All in all Professor Giddings, as would be expected, has written a unique book. It should be studied by all professed sociologists for its social analysis, its classifications and its philosophy."

Among the colleges and universities which have used or will use Giddings' *The Scientific Study of Human Society* in class or seminar are the following: University of Minnesota, University of Wisconsin, University of Missouri, Columbia University, University of Chicago, University of North Carolina, University of Florida, University of Alabama, Tulane University, Smith College, University of Washington, University of Pennsylvania, University of Georgia, Yale University, Ohio State University, University of South Carolina, University of Illinois, University of Indiana, University of Kansas, University of Texas, Harvard University, Western Reserve University.

Order direct or through your bookstore

THE UNIVERSITY OF NORTH CAROLINA PRESS

CHAPEL HILL, N. C.

PREFACE

My purpose in this book has been to indicate wherein and to what extent Sociology is indubitably a *scientific* study of Human Society, and how it can be made more rigorously so. To this end I have undertaken to describe strict methods that sociology can avail itself of, and to point out precautions and limits which must be observed in the use of each.

While the book is not a treatise on sociology and makes no claim to be, it necessarily formulates the fundamental sociological problems, and sets forth the more important sociological generalizations that admit of verification.

Use of the book as a text should be preceded by a short introductory course, concrete and elementary; but I hope that it will meet the need for a rounding out and clinching work. Indeed, to be quite frank, I think that it *ought* to be used for that purpose until it is superseded by a better book in its field. At present it is the only work of its kind. I do not believe that a student has mastered the *essentials* of sociology, not to mention wealth of detail, until he has become acquainted with the subject matter to which these pages are devoted, whether he

obtains the knowledge from these pages themselves or from other sources.

Various chapters have appeared from time to time in the *Journal of Social Forces*, and portions of Chapter XII were printed some years ago in the *Publications of the American Statistical Association*. I am under many obligations to them, and above all to Dr. Howard W. Odum, Editor of the *Journal*, which I gratefully acknowledge.

To my departmental colleagues, Tenney, Lindsay, Chaddock, Ogburn, Shenton and Ross, I desire to express my grateful appreciation of valued suggestions and assistance.

F. H. G.

New York, Oct. 1, 1924.

CONTENTS

CHAPTER I

SOCIETAL PATTERNS

William James's description of the world upon which a baby looks forth as a big and buzzing confusion has been quoted many times and will be quoted many times again. It is one of the best descriptions of anything ever written.

There are minds that remain infantile throughout life; they never discover order or meaning in their surroundings. There are minds that outgrow infancy more or less; to them parts of the world, here and there, become orderly in a simple, familiar way; and these familiar parts of their environment no longer bewilder them. Then there are minds that almost grow up. To them a great deal of the world becomes a scheme of things, which they think they understand; and many of them become so pleased with themselves and with what they have learned that they get into a way of believing that they know a great deal more than they really do. One part of the world in particular they find so comprehensible

that they want to take it to pieces and put it together again, with improvements. They entertain no doubt of their ability to make a good job of the undertaking. This part of the world, so provocative to tinkers (in particular to tinkers whose vocation is law making) is Human Society.

A relatively few minds find the world intelligible if and when they put forth effort to acquire knowledge of it; and among these a small number have enough curiosity and doggedness to make the effort painstakingly. They observe and compare, they count and measure, they experiment and "check up." These are the scientific minds. In the course of time they come to know more about the world than anybody else does, and they discover more ways of making it a comfortable place for men to live in than other folk have discovered. But oddly enough, the more they learn, the less impatient they seem to be to make everything over by direct action. In particular they become doubtful of the wisdom of drastic experimenting upon human society. They want first to see and be sure *what else* is likely to happen when an existing balance of interests or forces is upset.

The first bit of order which the infant mind perceives in the blooming and buzzing con-

fusion of its world, is a vague pattern. A contact, or pressure, or something warm, or loud, or bright, or pungent, is "this" way or it is "that" way; it happens "before" or it happens "after." Presently the mind perceives that some of these "somethings" recur in the same place or sequence. The warmth and the contact are always that way; the loud sound and the brightness are always this way; or perhaps it is the other way around, or the combinations are different. The warmth happens first and the pressure follows; the sound happens first and the brightness follows; or perhaps again, the order is not just this but there is *an* order. Always there is *an* arrangement of "somethings" in direction or in sequence, in space or in time, or in both, for an instant, or for a while; and any such arrangement of "somethings" is a pattern. Or, to put our cart before the horse, and so make a definition, a pattern is any arrangement of "somethings" in space or in time, or in both, for an instant or for a while.

With uncanny rapidity a young mind, if normally capable, discovers intricacies in its world pattern, one after another. It discovers gradations of pressure and of temperature, of light and shade, of pitch and of colour; it discovers near and far. Then it discovers similarities,

segregations and associations, divisibilities and factors, components and compositions, numbers and ratios. At length, after all this discernment, it discovers variables and variability, transformations, and progressions.

As soon as the nature of a pattern is perceived it is easy to see, further, that patterns are of three fundamental types. First, or sometimes to our apprehension, second (and not objectively one or the other) there is a *form* pattern, in which space positions are more conspicuous than time sequences, and quiescence is more conspicuous than motion, although time is always discoverable in space, and motion in quiescence, if we look for them. The form pattern is the graphic or the structural, it is the morphological pattern of things. The tracing from which a garment is cut, and the "cut" itself, the mould into which a casting is run, and the shape of the casting, a working drawing, a map, the topography of a region, the structure of a plant, the anatomy of an animal, all these are form patterns.

Second, or sometimes to our apprehension, first, there is an *action* pattern in which time sequence and change are more conspicuous than space position and quiescence, although these are present. The action pattern is the

dynamic, the physiological or functional, the behaviouristic pattern of things. The circling of negative electrons about their positive nucleus in the atom, of planets about their sun, the swirling motion of a tornadic storm or of a whirlpool, the turning of the leaves of plants toward light, are action patterns. The predictable performance of a kitten a few seconds old when placed on its back, is a complicated action pattern of the instinctive order. The kitten turns its head to one side, and then, with a screw-like motion, its shoulders; next it doubles in one paw and extends another; and finally, still twisting its spine, it turns its body until it rests on its belly. This sequence it repeats as often as it is placed on its back.[1]

Third to our apprehension (and this time there is no alternative order, we are not able to perceive it until we have discovered form and action patterns) there is a *factoral* pattern. Certain factors are combined in specific ways or ratios to constitute given products, and factors are of three kinds, component-constituent, dynamic, and conditional.

Every something is a lot of somethings. A population, a herd, or a swarm is a lot of individuals, human or animal. The human or

[1] Experiments of Professor Frederick Tilney.

animal organism is a combination of organs, these of tissues, these of cells, these of protoplasmic bodies, and these of molecules. Inorganic masses, too, are composed of molecules. Molecules are composed of atoms; and atoms of electrons. Composite somethings are also complex; that is to say, they are made up not only of components of like kind, but also of constituents of unlike kind. H_2O is the constituent-component factoral pattern of water. Carbon, hydrogen, nitrogen, oxygen, phosphorous, sulphur, sodium, potassium, magnesium, calcium, iron and chlorine, and occasionally other elements in combination are the constituent-component factors of protoplasm.

Factors that are difficult to imagine and so to know pictorially, but which we can know conceptually, and which are present in every pattern, are the dynamic ones. They are the factors of motion, change, doing. These are variously known as "energies" or "energy," "forces" or "force." All are modes of motion. Motions may be turbulent as in the wild dashing about of molecules which we know as heat, or coördinate, in which a body (theoretically a particle) moves consistently along a definite path, rectilinear or curving, so exactly that at any point its position with reference to an axis of abscissa and an axis of ordinates satisfies the

terms of an equation. The word "force" is correctly used only when employed to designate coördinate motion. To all other dynamic manifestations the more general word "energy" applies. Force, in other words, is only one form of energy.[2]

Factors of a third kind, entering into all patterns, are known as "conditions." They are of three categories, namely, place, time and circumstance.

The circumstance that we normally apprehend the fundamental aspects or types of pattern in a certain order (and factoral patterns always last) determines a certain normal order of procedure when we set about the systematic study of our world.

Our aim is to arrive at explanation and so at understanding, and, as a rule, we do not arrive at explanation by just dropping down on it. Usually we climb, and we require something to climb on, namely, accurate descriptions of form patterns, along with much history of them, accurate histories of action patterns, along with trustworthy description of them, and a good deal of factorizing, which consists in resolving a phenomenon into components or elements of place, time, circumstance, quality, magnitude,

[2] The reasons for this discrimination need not be stated here. They take us into the realm of the conservation of energy and the theory of quanta.

activity, behaviour or function, co-existence and sequence.

In the study of Human Society above all it is necessary to begin with a serviceable knowledge, descriptive and analytical, of form and action patterns, present and past. Until we have obtained it we can make no headway in attempts to arrive at an understanding of processes. An explanatory sociology is our final, not our initial, achievement.

It is, however, our chief concern in this book, and what I say here about patterns is an outline tracing only.

The societal form pattern is structural, by composition and by constitution. It is made up of human units, more or less alike, more or less different, combined in small groups, which, in turn, are combined in relatively large groups. To the possibilities of yet further combination, into great and ever greater groupings, there are no assignable limits.

A strictly new or original societal group is normally, and perhaps, if we look closely enough always a casual, that is to say, an accidental or otherwise fortuitous group. Its human units find themselves arriving in one place by luck of alluring occasion or opportunity, or because of

misfortune or disaster which has driven them from homes or haunts elsewhere.

A young man and a young woman attractive to each other meet casually at a neighbour's, a house-party, or a dance, fall in love and marry. A family and a household group result, and perhaps a kinship group which lives on through many generations.

Three or four young men meet by chance and are drawn to each other. They become companions. After a while it may happen that other men are taken into the comradeship, and they become a fraternity; or, discovering that they have a common interest, they found an association, or sodality, so named from the Latin *sodalis*, a mate.

A multitude of individuals attracted by a spectacle, a speaker, or perhaps nothing more substantial than a rumour, assemble as a curious crowd; or, infuriated by a crime or other intolerable wrong, or perhaps only by instigation or obsession, they converge in the sinister solidarity of a mob.

From far and near home seekers and adventurers invade a region only now made accessible or in which tempting resources have only now been discovered. Many remain, others come, and together they become a community.