PRACTICAL SOCIOLOGY IN THE SERVICE OF SOCIAL ETHICS

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# CHARLES RICHMOND HENDERSON

In a Stanton street tenement Jacob A. Riis¹ found a Polish capmaker's home. "The rooms were in the rear, gloomy with the twilight of the tenement, although the day was sunny without. . . . A little boy stood by the window, flattening his nose against the pane and gazing wistfully up among the chimney-pots where a piece of blue sky about as big as the kitchen could be made out." Once every summer, for a little while, the sun came over the houses, and its rays shone into one room. The mother never was well; the baby had a grave white face. "The capmaker's case is the case of the nineteenth century, of civilization, against the metropolis of America."

Similar conditions from similar causes produce the same effects in all the industrial centers of the world. Modesty, self-respect, sympathy with social order, faith in a moral order, break down in these gloomy prisons. Individual efforts are so inadequate that they drive men back to apathy or desperation. Individualism is a mockery; for we have a social question, a community duty. Physical energy is sapped, and the coming generation start life as weaklings, parasites, or rebels. The conscience of the modern world is awakened. Organized philanthropy and governments have begun to accept a moral responsibility. Certain general plans of associated and legal action have been agreed upon. In the more advanced communities on both sides of the Atlantic a system of operation which embodies the results of studies and experiments to date, and which provides in itself for further experiment and improvement, has been organized.

In this typical movement one may discern the outlines of a chapter in practical sociology; the co-ordination of data from many scientific disciplines; the recognition of a social obligation which includes not only the duty of acting, but also of acting in the best way, with the light of science.

In order to make clear from the beginning the position occupied by the present writer, it may be said: (1) that the problems here discussed are, in his opinion, essentially ethical in their nature; (2) that it seems to be a matter of indifference whether they are investigated under the name of "social ethics" or of "practical sociology," so the investigation is genuinely scientific; (3) at present it seems necessary, in order to guarantee an academic position for these investigations, that in most higher institutions a department of sociology should be charged with the task, with such division of labor between political and economic science as seems locally necessary. The arrangement is chiefly one of convenience, and other divisions of labor might accomplish good results.

The main point which we here seek to make more clear is that one of the largest and most important fields of social science at present is neglected, and denied a place as a *scientific* discipline, even when its supreme importance is recognized.

# THE TRADITIONAL METHOD

Ethical science,<sup>2</sup> as commonly treated, has attempted to deal with two aspects of the moral life: with personal qualities of character and with social conduct; with what ought to be in a man's inmost nature and choice, and with what we ought to do in our social relations. While it is impossible to separate these factors, we have here to deal chiefly with conduct in communities; and particularly with the problem of the scientific and academic treatment of this discipline. For if those studies which most directly interest men have no academic standing, it is a grave question whether the university or society will suffer more from the divorce.

Most men never ask themselves the reasons for the claims of duty, nor do they cite before the bar of critical judgment the customs of society. Upon reflection and after analysis we discover that we have, usually quite early in life, accepted certain conventional standards by which we approve or condemn modes of action in relation to our fellow-men. Social beliefs about duties are "in the air," and float to us upon the winds of tradition. Conduct is socially controlled by appeals to hope, fear, and sympathy. Only in an advanced stage of culture and maturity are these expressions of social desires taken up for deliberate criticism. Genuine discussion of the reasons for morality is not even tolerated until the scientific and philosophic spirit is developed. The impulsive anti-socials do not argue; they simply defy public opinion and attempt to outwit the agents of police control. Ostracism or the shotgun takes the place of real discussion in remote regions where belated economic, ecclesiastical, and political doctrines are dominant.

Morality and religion seem to have sprung from independent origins, yet finally religious beliefs become sanctions of moral creeds. Then sacred texts are treated as primary sources of law. But as these revered texts were written under very different social conditions, they can be used only in the most general way, and the attempt to find in them rules for guiding modern life is abandoned. "Cursed be Canaan" and the story of Onesimus are no longer brought forward as arguments for slavery; while the law of divorce in the Priests' Code has become antiquated. Religion remains the sublime background of conscience and supports man in doing the best he knows or can find out.

Fortunately this inherited and traditional morality works, on the whole, for good. It is itself a result of trial and struggle of competing forms, and the unfit have perished, while the nobler forms, not without scars, have survived in honor. The structural changes in society are made slowly, and there is time for new adjustments and interpretations. The history of the ecclesiastical doctrine of "usury" illustrates the

<sup>&</sup>lt;sup>2</sup>This article is intended to carry into further detail a line of thought started in my article on the "Scope of IX (1901), p. 470.

process. So long as the scientific resources of society were scanty there was no other way of directing conduct. The elementary impulses of hunger and love, guided by the reins of instinctive morality, pushed the race forward.

Philosophy has long been at work to find a basis in reason for our instinctive and traditional morality, and to show the unity of our moral life in a universal order. Philosophical ethics has formulated a doctrine of ends which serves as a criterion, a touchstone of nature and of deed.

Psychology, in its analysis of the phenomena of spirit, has laid bare the moral dispositions, virtues, and graces; and it is still difficult to improve the categories of Aristotle. Mr. J. N. Larned concludes the introductory essay to his anthology of classic counsels on the conduct of life with these words: "I end it with a deepened conviction that the knowledge of good and evil has been complete in the world from the beginning of history, and that mankind has had nothing to learn since but the application of it." "Nothing but the application of it!" As if this were easy enough. It is precisely here that a catalogue of virtues shows its deficiencies, and, when fording is deepest, we are left without a bridge. As soon as we pass from these general and undisputed facts of the inner moral life, which are so clear to any youth that a multitude of words simply darkens the air with dust, and begin to deal with complex social conditions as responsible adults, the guidance of instinct, tradition, custom, and law is obviously at fault. Tact and common-sense are still indispensable; worthy aspirations of justice and mercy never become antiquated; but in modern conditions an instrument of precision is required, a science of conduct.

In an age which takes nothing for granted, where criticism discovers to light the deepest stones of the foundations of law, government, property, and marriage, the appeal to tradition and common-sense begs the question. We have, in a higher degree than in simple agricultural society, need of a scientific support of morality; a defense of what is still vital, a critical rejection of what is obsolete and obstructive, and an adequate reason in the facts of contemporary life for social claims on the individual. Kant may have been right in affirming that there is nothing absolutely good but a good will; but even a good will is mere blind impulse unless it is instructed by a knowledge of the situation in which it is to act.

#### OBJECTIONS TO THESIS

Many shrink from the task of applying the vague and abstract principles of moral philosophy to actual life, on the ground that it is too difficult, if not impracticable.<sup>3</sup>

In response to the current objections, on the part of many ethical writers even, to the effort to apply science to the manifold relations of society, we may, on behalf of practical sociology, enter a plea for a new hearing of the case.

1. The psychologists and ethical philosophers have a perfect right to define the limits of their own investigations. Perhaps a new division of labor at this line may finally be accepted as most fruitful, and a "pure science" of ethics may be given the field of

<sup>&</sup>lt;sup>3</sup> HERRMANN, Ethik, 1st ed., pp. 160, 161; 2d ed., pp. 164, 165.

the conventional and traditional treatises. Certainly here is a noble subject worthy of the devotion of highest powers and difficult enough to put genius itself to severest strain.

- 2. It is easy to admit, for it is true, that many of the attempts of ethical writers to discuss special social problems of duty have been superficial and unsatisfactory. The failure may be due to the false method of deduction of specific duties from assumed premises, or to ignorance of the subject, or to brevity of treatment, or to any other cause. But in all this no rational ground is given for abandoning the systematic effort to discover guiding principles for the conduct of life in affairs where error means misery, degradation, and death. Remember the cap-maker's baby, with its "grave white face."
- 3. Nor will the attempt to escape from this supreme task of social science by referring us to the "economists" and "political philosophers" give men adequate relief. It has come to pass in the academic world that a perplexed citizen, honestly asking to know his duty, is treated like a foreigner whose child is sick with scarlet fever or diphtheria; no hospital will receive him in a certain city, because no specific provision is made for his class of cases. In social science we need something corresponding to the clearing-house of the bankers and charity organization society of modern philanthropy. Constructive talent is not a monopoly of universities. The position has become intolerable, and, since the regular practitioners refuse their counsels, there arise quacks who advertise their social nostrums and win a hearing. Economics, as the science of "wealth," does not and cannot make itself a science of "welfare," for in welfare wealth is only one factor, never the highest, and not always decisive. Political science, as the science of government, policies, laws, and administration, comes too late; for government can do only what the people have already concluded is duty, and only a part of that.

<sup>4</sup>Standard of economical welfare, of the wealth interest of a community: "Wer dieses wirthschaftspolitische Wirken verfolgen will muss einen Massstab für das Handeln der Menschen gewinnen. Ein solcher setzt ein einheitliches Ziel der Wirthschaftspolitik oder, da wir als solches früher die allgemeine Wohlfahrt bezeichnet haben, eine nähere Bestimmung dieser voraus. Soweit sie im Bereich des Wirthschaftlichen gelegen ist, kann sie nur bedeuten; reichlichste, mannigfältigste und nachhältigste Güterversorgung für Alle mit dem geringst möglichen Aufwand an Arbeitsmühe."—E. von Phillippovich, Grundriss der politischen Ockonomie, Band II, Theil 1, 1899.

Philippovich has distinctly noted the fact that economic science deals with only one element in welfare, and as distinctly opens up a field which is precisely what we are seeking to cultivate under the name of "practical sociology." Discussing the "social question," he says: "In allen auf die Lage der Arbeiter Bezughabenden Massnahmen kommen nicht bloss wirthschaftliche, sondern auch ethische Gesichtspunkte in Betracht. Die Arbeiter bilden den grössten Theil der ganzen Gesellschaft. Ihre Trennung von den übrigen Gliedern der Gesellschaft durch eine Beschränkung ihrer Lebenshaltung hat eine geistige und sittliche Trennung zur Folge und damit eine Spaltung der Nation, die auf die Dauer nicht ohne die verderblichsten Folgen für die Gesammtheit bleiben kann. Die den Arbeitern gegenüber einzuschlagende Politik kann daher niemals bloss Wirthschaftspolitik sein; sie ist vielmehr stets auch Gesellschaftspolitik, d. h. sie sucht die Einheit der Gesellschaft zu erhalten gegenüber den durch die Unterschiede in der wirthschaftlichen Stellung begründeten Verschiedenheiten der Bildung und des Kulturgenusses und der darauf beruhenden Trennung der Klassen. Darum hat man diesen Theil der Wirthschaftspolitik auch mit dem besonderen Namen der Sozialpolitik bezeichnet. Achnliche Aufgaben treten allerdings auch auf anderen Gebieten der Gesellschaft auf. Die Sozialpolitik ist daher nicht auf die Arbeiterfrage beschränkt; allein sie findet hier ihr grösstes und wichtigstes Anwendungsgebiet."—Ibid., p. 143. Bd, II.

But even this passage is not an adequate statement of the case; for the "moral" causes of economic conduct are here driven into the shadowy background of subordinate interests; and the ultimate and supreme interests are belittled by identifying "social politics" with a certain branch of economics. The "social question" is made to stand with its head in the dust, and the economic factor is projected, like an object in the foreground of the camera's focus, and made to appear identical with all social welfare. Never will practical social philosophy come to its rights so long as it is treated as an adjunct of political economy. Von Philippovich had already shown that "social politics" cannot be limited to political science, as the science of government (Vorwort, p. iii; pp. 8, 22). To von Philippovich we owe a powerful and conclusive argument for giving to "practical politics" a place in scientific discussion. In his treatment the dread of invading the field of social "art" does not disturb the investigation of methods of applying our knowledge directly to the improvement of man's estate.

4. It is frequently and rightly asserted that a system of casuistry, ready with prescriptions for the innumerable cases of conscience, is impossible. If a science of social conduct must be identical with an encyclopædia of casuistry for the confessional, the ambition to construct it were the climax of folly. Whatever wise physicians and clergymen may do, social science cannot furnish their recipes. We must deal with laws, not with cases; with principles of conduct in abiding relations.

5. We must protest against any writ of injunction, issued in haste to prejudice our cause, and to forestall any attempt to construct a science of conduct, on the ground

that such an attempt is immoral. Says a strong and profound writer:

The attempt to develop the moral duties for every class and calling must not only remain superficial, but must even be in antagonism to the proper task of ethics. Since what in every class and calling is morally obligatory can be measured only by those who themselves take part in the contest and trial, ethical science should make clear to men without evasion, what they fain would conceal from themselves, that every man must find in his own plane what is morally binding on him.<sup>5</sup>

It is admitted that the members of a profession are in the best position to formulate their duties to each other and to the public, so far as technical knowledge is concerned. The medical fraternity has for ages sworn its solemn oath upon a professional ethical code which is not merely venerable with antiquity, but also lofty in sentiment, and it has drawn out a system of regulations which may well serve as a suggestion to other and younger prosessions.

Lawyers have gradually developed a similar code among themselves. Even in the wild tumult of boyish and barbarous excitement on 'change the voice of the Golden

Rule is heard and its oracles interpreted.

But it were to miss the whole point of our investigation to accept the prohibition as it stands. It is the language of individualism, and we are in quest of principles of social conduct, not of rules for isolated individuals. Seldom does reform come wholly from within. Men are not all villains;

"But och mankind is unco weak
And little to be trusted;
When self the wavering balance shakes
"Tis rarely right adjusted."

The members of a profession always suffer from tribal bias, and, notoriously, as Adam Smith observed of managers of business, they are in a tacit league to depress incomes in other callings. The history of socialism and of trade unions proves that a similar class bias darkens the moral vision of men who are nearest the facts. Society does not dare to trust the common duty and interest to the definition of individuals or classes. The moral duty of the class will never be comprehensively and adequately stated without a public judgment. No Star Chamber edicts hold in the realm of conduct.

The necessity of framing codes of morality for each profession, based on the

<sup>&</sup>lt;sup>5</sup> HERRMANN, Ethik, pp. 160, 161.

public welfare and judged from that standpoint, may be illustrated by the following passage from Bryce's American Commonwealth, chap. lxxv, where the author is speaking of certain forms of political corruption:

Perhaps this is only an instance of the tendency in all professions to develop a special code of rules less exacting than those of the community at large. As a profession holds some things to be wrong, because contrary to its etiquette, which are in themselves harmless, so it justifies other things in themselves blamable. In the mercantile world, agents play sad tricks on their principals in the matter of commissions, and their fellow-merchants are astonished when the courts of law compel the ill-gotten gains to be disgorged. At the English universities, everybody who took a Master of Arts degree was, until lately, required to sign the Thirty-nine Articles of the Church of England. Hundreds of men signed who did not believe, and admitted that they did not believe, the dogmas of this formulary; but nobody in Oxford thought the worse of them for a solemn falsehood. We all know what latitude, as regards truth, a "scientific witness," honorable enough in his private life, permits himself in the witness box. Each profession indulges in deviations from the established rule of morals, but takes pains to conceal these deviations from the general public, and continues to talk about itself and its traditions with an air of unsullied virtue.

The revelations of the tax assessors of personal property of an intangible kind, and the authenticated history of franchises in city councils throw light on the grim humor of the proposal to have codes of conduct for directors of corporations drawn up by the directors themselves—just as they draw up bills for the legislatures! If the great public want laws or morals shaped on an unselfish pattern, the public must become competent to make its own drafts of rules or statutes, and impose them on the unwilling.

6. The assumption of some ethical writers, especially from a certain theological standpoint, that if the intention is good the conduct will be right, cannot be sustained, and it is full of dangers. Is it not a proverb that "hell is paved with good intentions"? Doubtless a just man will be less likely to do injury to his fellows than another man of equal intelligence who is crafty and selfish. But social welfare cannot safely be left to ignorance and incompetency, even if these are associated with amiability.

7. The assumption that social ethics has nothing to do with debatable questions is not sound.<sup>6</sup>

It is precisely in the new problems that men of the world ask help, if ever, from the men of science. If ethics as "pure science" declines to soil its white hands by touching reality, its students have no right to complain if some others who work close by their side in full sympathy of aim, but in nearer contact with life perhaps, cultivate a realm which moral science proposes to abdicate. Our agricultural colleges have demonstrated the value of their academic studies to farmers, unterrified by the protests of "pure" chemists that agriculture is an "art" and not a science. The abstract sciences are to applied science what flour is to bread. Technological schools have

selbst recht schwierige Dinge zu erledigen hat, bei denen ihr die Nationalökonomie nichts helfen kann.—HERMANN, op. cit. (1st ed.), p. 175.

<sup>6</sup> Man wird aber doch beklagen müssen, dass dann die Ethik in die Behandlung vielumstrittener wirthschaftlicher Fragen hineingezogen wird, während sie für sich

reduced the matter of their instruction to a system of knowledge which can be taught and is taught with high value in education, and yet is not "pure" physics. Medical science may be an "art" dependent on anatomy, physiology, and pathology, but yet, full of debatable questions as it is, it is a body of principles which can be learned and taught, is useful for culture, and of untold value to the human race. Social science has become an intellectual and practical necessity just because so many questions of supreme moment and interest went begging at the door of all the "pure" sciences in turn.

8. It is very evident that those who believe sincerely that we neither can construct a genuine science of social conduct, nor even have a moral right to attempt it, will never put heart, patience, and fruitful effort into the pioneer enterprise. The "hands that believe" are the hands that build, especially on the frontier where the forest is dark, enemies many, and success uncertain.

9. The objection is made that a science of social conduct for particular groups is impossible, because no one man has the learning or the intellectual power to master the necessary knowledge. This objection is based on a false conception of the discipline. If it had any logical value it would be valid against any science, as biology, chemistry, botany. All great subjects must be farmed out among specialists as soon as we descend to particular fields. But a common scientific purpose and method may bind all the discoveries together and bring them into a larger synthesis in due time.

Can a whole *community* form a correct judgment of these standards and methods? There is abroad in our country an ill-disguised contempt for democracy which has its basis partly in the facts of failure, and partly also in a misconception of what a democracy should be expected to judge and decide. If an entire community cannot, in any sense, form a judgment of the wisdom and morality of complex systems, then is our national pretension a huge falsehood.

It is true that we do not even profess to be a pure democracy, and that our political organization, having outgrown the town-meeting stage of rural simplicity, is and must be a representative organization. In church, school, and government this is the fact.

But representatives and administrators are still responsible officers, even when the people no longer try to direct matters by referendum or mass-meeting votes; and responsibility could never be enforced if the people were totally incompetent to form a fair and reliable opinion of their conduct. It would be absurd to insist, as all publicists, editors, and moral teachers do, upon community duty and social guilt, if government must be, in reality, a government by a clique. The fact is this that a people can and ought to decide policies and pass judgment upon results; but they cannot carry out, or even understand, the technical details of administration.

A community must trust experts, and its advance in culture and morality is marked by deepening respect for trained service. But this trust is not a blind faith, a stupid superstition. In some respects common workingmen are far better judges of

<sup>&</sup>lt;sup>7</sup>See S. AND B. Webb, Industrial Democracy, Introduction, p. xvii.

policies and results than either men of science, employers, or administrators. Only the man in the lower stratum can feel how heavy the weight of all above him is. The man who wears the ill-fitting shoe is the only one who can tell exactly, even to the shoemaker, where it pinches. This homely illustration is sufficient to show the essential immorality constantly practiced in most of our fashionable philanthropies and reform clubs, when men disdain to take counsel of the only persons in the city who really know the facts.

The democracy ought to be taken into the confidence of universities on social matters, because the experience of the wage-earning class is part of the phenomenon to be studied; and it is simply unscientific to exclude any part of the evidence. University extension and college settlements are not only desirable as means of expression and instruction; they are quite as necessary to the university itself in its work of research. The academic materials for forming judgments in social science are often about as adequate as a dried herbarium would be for the study of plant physiology.

International law is not an easy subject, and treaties of commerce are not free from intellectual difficulties; yet the entire people must furnish men as soldiers, and money from taxes to support the policy of the government, and statesmen at least make a show of giving to the voters their reasons for war and for tariffs.

# PURE AND APPLIED SCIENCES

The dread of giving a place in academic recognition to the despised "bread and butter" studies actually confuses the judgment on the subject before us. That dread is not altogether without reason, when it keeps within the bounds of reason. The votaries of "pure" science should be protected, with all the financial and moral resources of the universities, from distractions in the field of invention and commercial application. Chemistry, physics, biology, and pathology will do their best service to humanity if investigators, in the main, disregard any attempt to make them immediately "useful." The history of the sciences offers cogent proof of the ultimate value of investigations which had for their end nothing but pure truth, law, cause.

But, on the other hand, the claim is here made that this respect should be given to any honest, competent, and thorough attempt to organize out of many related truths a system of knowledge in any field at the point where such knowledge is immediately available for social use. Bigotry is not all on one side. If "practical" people are sometimes unreasonably impatient and contemptuous toward the specialists who must live afar from the popular tumult, the votaries of "pure" science are also sometimes unreasonably impatient toward those who seek to fit the parts of knowledge together as the assembler must the parts of a watch before it can fulfil its purpose, and mark the hour.

Is it not significant and encouraging for our enterprise that one of the most honored and useful branches of science is entitled "the principles and practice of medicine"? This is a true science or department of science, which rests on, but is not identical with, anatomy, physiology, chemistry, pathology, and other "pure" sciences.

One of the treatises which bears this title makes a quotation from Plato's Gorgias which is suggestive for our purpose: "And I said of medicine, that this is an art which considers the constitution of the patient, and has principles of action and reasons in each case." All competent physicians are distinguished from quacks and charlatans precisely by this fact that they act upon principles and reasons.

There is a practical science of medicine. It is not chemistry, although the chemical effects of drugs must be known. It is not anatomy, although knowledge of anatomy is an essential element. It is not physiology, and yet the functions of the body must be understood. It is not pathology, and yet it is dependent on pathology at every step. Whenever a new discovery in any one of these "pure" sciences is made it compels a measure of readjustment in the practical science of medicine. But the science of medicine is an independent rational achievement, a system of knowledge which combines, for the end of healing, all the factors of the pure sciences which underlie it.

There is also a medical art, a technical and personal skill; so different from science that one may be eminent in knowledge of medical principles, yet unsuccessful in the art. The same remarks can be made of the practical science of surgery.

In the case before us there can be no suspicion of an attempt to introduce a "bread-and-butter" study into a college or university curriculum. On the contrary, it is a discipline which asks for sacrifice and finds its motive in philanthropy. There is no prospect of making a living out of it or of rolling up riches by selling royalties on a copyright. It will not lead up to a lucrative calling, as in the case of the "liberal" professions of medicine, law, theology, and pedagogy.

But a more plausible objection is based on the view that practical social science is not science at all, but only "art." This objection may be examined by a critical analysis of the statements found in J. S. Mill's *Logic*. It may be said in passing that even if it is finally shown that practical sociology is "art" and not "pure science," it may still have a right to a place in a university co-ordinate with technical and professional disciplines.

The distinction between science and art, as applied to society, almost vanishes upon careful analysis. "The application of means to ends is the discovery of means to apply them, or of the method of application, so that the actual muscular movements, the ultimate steps of all in the process, are the only part of art which is not science." 10

The powerful influence of J. S. Mill is naturally still felt in social science, and, if the contention of this paper is sound, he left the subject in an unsatisfactory position, although he hints at the right method:

The imperative mood is the characteristic of Art, as distinguished from Science.<sup>11</sup> Whatever speaks in rules or precepts, not in assertions respecting matters of fact, is art; and ethics, or morality, is properly a portion of art corresponding to the sciences of human nature and society:

 $<sup>8\,</sup>W.$  Osler, The Principles and Practice of Medicine, 3d ed.

<sup>9</sup> See some discriminating remarks in BOUCHARD, Pathologie générale, Vol. I, p. 48.

<sup>10</sup> S. H. Hodgson, The Theory of Practice (1870), Vol. I, 234.

 $<sup>^{11}</sup>$  J. S. MILL,  $A\ System\ of\ Logic\ (New York, 1851)$  , Book VI, chap. xi, pp. 588 ff.

the remainder consisting of prudence or policy, and the art of education. The Method, therefore, of Ethics, can be no other than that of Art, or Practice, in general. . . . . The reasons of a maxim of policy, or of any other rule of art, can be no other than the theorems of the corresponding science.

The relation in which rules of art stand to doctrines of science may be thus characterized. The art proposes to itself an end to be attained, defines the end, and hands it over to science. The science receives it, considers it as a phenomenon or effect to be studied, and having investigated its causes and conditions, sends it back to Art with a theorem of the combinations of circumstances by which it could be produced. Art then examines these combinations of circumstances and according as any of them are or are not in human power, pronounces the end attainable or not. The only one of the premisses, therefore, which Art supplies, is the original major premiss, which asserts that the attainment of the given end is desirable. Science then lends to Art the proposition (obtained by a series of inductions or of deductions) that the performance of certain actions will attain the end. From these premisses Art concludes that the performance of these actions is desirable, and finding it also practicable, converts the theorem into a rule or precept.

This sharp distinction between science and art seems to break down when we consider that even the "desirable" must be made a matter of knowledge. What is desirable must be implicit in our nature and conditions, and the rational investigation of the desirable is an inquiry after a fact; it is a pursuit of knowledge. There is thus, at the decisive line, no separation between ethics and social science.

There is also a science of education, because there are principles of successful practice derived from experience and formulated as a matter of knowledge.

The art of education is an entirely different matter; it is the technical process of training and skilful action, in accordance with the science of education, and is a quality of persons. The distinction between art and science is valid, but not where it is made by Mill and those who follow him.

A little farther on Mill actually hints at the very discipline for which we are now contending:

And Art in general consists of the truths of Science, arranged in the most convenient order for practice, instead of the order which is the most convenient for thought. . . . Art . . . . brings together from parts of the field of science most remote from one another, the truths relating to the production of the different and heterogeneous conditions necessary to each effect which the exigencies of practical life require to be produced.

Now, this rational process is precisely what we are coming to call "practical social science" as distinguished, not from "social art," but from "theoretical social science." 12

That Mill was almost in sight of this field may be shown, not only by his (unabridged) work on *Political Economy*, but also by some of the concluding sentences of his *Logic*, in which he carries us back to Comte:

On this natural difference between the order of the propositions of Science and Art (science following one cause to its various effects, while art traces an effect to its multiplied and diversified causes and conditions), a principle may be granted, which has been suggested with his usual sagacity, but not dwelt upon or accompanied with the nocessary explanations, by M.

<sup>12</sup> This distinction, made by many German economists, has been discussed in my article, already referred to, references to the economists are there cited.

Comte. It is, that there ought to be a set of intermediate scientific truths, derived from the higher generalities of science, and destined to serve as the generalia or first principles of the various arts.

And Mill's closing sentence opens a vista which encourages those who are undertaking the lofty and difficult task of developing this "set of intermediate scientific truths":

For the realization of the important results, of which it has been thus indirectly attempted to facilitate the attainment, mankind must ever be principally indebted to the genius and industry of ethical and sociological philosophers, whether of the present or of future times.<sup>13</sup>

The academic horror of cultivating "applied science" is responsible for the neglect of a very important field of investigation on the part of those who have the best training and fitness for it, and could, by nearer touch with actual life, make contributions to the theory of social life.

Thus it comes about that we have magazines and books full of descriptions of local experiments of all sorts, often very realistic and artistic, and rendering isolated facts with photographic fidelity. But as photography is not free art, so are these patches of concrete description not science.

When men of scientific habits and training begin, in greater numbers, to turn their attention to this field, with the concentration and devotion which most have given to classification, description, and explanation (theory), then we shall begin to see the outlines of a system of knowledge which may be called "social politics" in the Aristotelian sense, or "social technology," a "set of intermediate scientific truths."

Descriptions of local trade unions, co-operative stores, settlements, orphanages and industrial schools are purely artistic products. It is only when a law, some common tendency to produce a definite social result, and promote a social end, is sought, that we have a truly scientific investigation; and when this law is found we have a scientific discovery.

The cultivators of a "pure science" have justly complained that the world has no moral right to expect from them directions for making their theoretical studies "useful," save as all extension of human knowledge meets a rational desire. But they have no right, in turn, to drive others from the academic field with contempt. At this hour there is a distinct evil from which both science and humanity are suffering. "There is glory enough to go around," and there is work enough for all honest and competent investigators.

The question of academic division of labor here discussed is not one of exclusion: the place of the investigator of law and cause is now securely won and held in honor by all whose opinions are worth attention, while with Philistinism genuine scholars unite to carry on uncompromising war.

Nor is it one of technical and professional training for particular callings: the universities of Germany, the land of ideal devotion to pure science, have decided that point and admitted the professional schools.

less on changes in institutions than on modifications of the thinking and beliefs of men. Cours de Philosophie Positive, t. 4, pp. 5, 78, 90, 91.

<sup>13</sup> Comte himself begins his work on sociology with a strong plea for speculative and pure science; but he plunges at once into one of the central problems of social technology when he argues that order and progress depend

But between these two fields of academic service lies that vast scientific task for which we here claim full academic rank: the rational and systematic organization of that present knowledge which is required by society as the basis for all its particular customs, laws, and concerted actions—that knowledge which jurisprudence, for example, presupposes. It almost seems, from the curriculum of instruction and from most programs of investigation that many scholars have the notion either that this task was unimportant or that it would in some magical way get itself done without university No doubt much useful work in social science will be done outside uni-Mr. Spencer and Mr. Huxley thought the English institutions of learning were not helpful in adding to the splendid achievements of the sciences of inorganic and organic nature. But it is not pleasant to look back over the history of the use of rich endowments at Cambridge and Oxford and think of the opportunities they missed, of the intellectual parasitism which they tolerated, and of the personal waste of life which resulted from their occasional, even frequent, failure to aid the world's honest struggle to find its way. Is there at this hour some danger that some of those who remember with justifiable bitterness the battle they have been compelled to wage against the so-called "practical" men of the shop and market, may themselves become Puritans and Pharisees, with a tinge of the fanaticism which clings to those who are conscious of having won in a worthy cause? It is often in the attempt to construct a workable intellectual system in social thinking that we come upon gaps in knowledge which start new problems for the specialists in the "pure" sciences.

Of course the only way to prove that a scientific method may be found for practical social science is to show results in dealing with special problems and in constructing practical systems for conduct. For this reason some illustrations will be offered in evidence and reference will be made to achievements.

The instinct of the common man of affairs is not altogether false and irrational when he demands help from the academic world. Each particular department may send him on to the next, on the plea that his question cannot be answered in that special room; but the university as a whole cannot cast out the supreme problems of living men, and refuse even to consider the matters which, to most of our supporters, are the only subjects in which they have daily interest.

It is indeed noble to pursue truth for its own sake, reckless of consequences, or, rather, in the sublime faith that the consequences of all truth must always be good; but it is also a task, worthy of the best powers of the strongest men of social science, to help bring order and system into the conflicting experiences of men who are too deeply in the smoke and roar of the market place to discover the plan of the battle.<sup>14</sup>

Nor is it a valid objection to this enterprise that it is premature; that we must wait until theoretical science is further advanced before we seek to formulate a science of practice. We must at any stage of science act, and act upon such light as we can get. Theoretical science will never be complete.

With such light as they have men must and will seek to satisfy the cravings of

<sup>14</sup> RATZENHOFER, Ethik, pp. 275, 276.

hunger and love, to enjoy the works of artists and historians, to produce and consume the material objects which minister to their animal and spiritual wants, and to organize themselves socially for the most effective co-operation in furthering common aims. At a given hour the sum of human knowledge, of natural and social science, is what it is, and has a certain value in the explanation and interpretation of the life process, in the revelation of tendencies, laws, sequences, causes. At that given hour the regulative principles drawn up for the guidance of social conduct can be only such as are deduced from the explanatory science and the common knowledge of that hour.

The duty of a city in respect to its sanitation, for example, cannot be formulated beyond the information given by the sciences of bacteriology, chemistry, and physiology. No system of conduct relating to a school system can surpass the psychology and educational science of the hour. No regulations of conduct by political and legal agencies can be wiser than the descriptive and explanatory sciences which deal with those fields.

But the contention here is that at every stage of social progress the regulation of conduct, on the basis of ever-growing knowledge, is a necessity. If it is a proper object of social science to discover causes and tendencies (empirical "laws"), it is also a proper object of science to formulate, so far as possible in the existing state of science, the conduct which most perfectly corresponds with the known conditions of welfare.

In some way men will formulate these regulative norms of social conduct and act upon them, and they cannot wait for the time when uncertainty and ignorance shall finally disappear. This formulation of principles of conduct is an intellectual process, and it would seem that it can be helped most by those who have such knowledge as we at present have of the nature and strength of the social causes which are the subjectmatter of descriptive and explanatory science. As a matter of fact, most of those who profess to attempt nothing but pure explanation or statement of an order pass instinctively, often unconsciously, over into the field of recommendation, advice, and mental construction of a system of conduct. Comte is always doing this, and illustrations from living writers could be adduced in profusion. There is a logic in life itself, and in our moral nature which bears us on over the artificial lines of division of scientific labor into the field of conduct. This logical impulse is implied in descriptive and explanatory science. The discovery of a sequence of causes implies a new social interest and obligation which must transform our ethical rules, our laws, our judicial interpretation, from end to end. Leibnitz, Liebig, and Kekulé may be greater men than Edison or Carnegie or Gladstone. It is difficult to form a scale for measuring the relative worth of the benefactors of mankind, and the attempt would be waste of energy. But certain it is that when a chemist or physicist enlarges our knowledge of atoms, molecules, and modes of motion, the very structure and conduct of civilized communities must undergo a corresponding readjustment. But this readjustment, so far as it is not blind and unconscious, and is the result of foresight and plan, is the work of social science, not of chemistry or physics. Chemical discoveries revolutionized the utilization of waste in dye-stuffs, slaughter of animals for food, coal mining and refining petroleum, as well as modes of transportation and manufacture. But in order that the material and spiritual advantages of these discoveries may be equitably apportioned among men, some sort of a practical social ethics and politics must be built up by an intellectual process as truly scientific, and also as painful and costly as that which led to the discovery of aniline dyes or the explanations of rent in theoretical economics.

It has been suggested in some quarters that the science which most properly may undertake this task of formulating principles for social conduct is history. It has been claimed that if we can set before us, in complete description, the stages of development of the soul of mankind, we shall posses the outlines of a science of guidance.<sup>15</sup>

That history has a high function to perform on behalf of social science is gladly acknowledged; but history tells us of the past, while practical sociology has to do with the present and, perhaps mainly, with the future. History supplies material for theory, and theory furnishes an analysis of the ends and forces which practical science studies with reference to conduct. In moral conduct as in economics there must be disciplines, both theoretical and practical, separate from history, before an organized system of thinking can be constructed and made available for intellectual and practical control. In no science is the history of its development a full statement of its contents.

Within these limits we may gladly accept the conclusion of Professor Dewey:

In analogy with the results flowing in physical sciences from intellectual control, we have every reason to suppose that the successful execution of this mode of approach [i. e., the genetic and historical] would yield also fruit in practical control; that is, knowledge of means by which individual and corporate conduct might be modified in desirable directions. If we get knowledge of a process of generation, we get knowledge of how to proceed in getting a desired result.<sup>18</sup>

# HELP IS NEEDED AND DEMANDED

Passing from consideration of objections to positive affirmation, we may note the fact that competent men have forcibly urged the plea we are now presenting. In general terms, Professor John Dewey has stated the argument which we are seeking to carry into special fields: "A moral law . . . . is the principle of action which, acted upon, will meet the needs of the existing situation as respects the wants, powers, and circumstances of the individuals concerned." It is evident that this "principle of action" cannot be clearly discerned and rationally vindicated without social science. Popular feeling and instinct has value, but is not a substitute for critical science in any field. It is true that men can see without microscopes, and for ordinary work it would be difficult to use high-power lenses, whether for ploughing or navigation. Men can see many stars without telescopes, but more with the aid of the finest instruments. Farmers can know much of plants and animals without biology, but not the world revealed by

<sup>15</sup> Thus LAMPRECHT, Zur jüngsten deutschen Vergangenheit, Bd. I, p. 462: "Nietzsche hatte recht, wenn er einmal meinte, der heutige Umfang der Menscheitskenntniss müsse zusammenfassende Anschauungen über den Entwickelungsprozess der Nationen gestatten und aus ihnen heraus auch die Entfaltung einer angewandten Wissenschaft der Nationalpolitik nach Massgabe der grössten und universalsten, der dauernsten und am meisten weltgeschichtlichen, der kulturellen Bedürfnisse der Nationen, etc."

<sup>16</sup>B. Kidd, Modern Civilization, has this for his thesis, that the burden of our practical interest lies in the future.

17 "Weshalb sich die historischen Gebiete dem gegenüber auf ein rein theoretisches Verhalten beschränken müssen ist einleuchtend. Das menschliche Handeln gehört direct nur der Gegenwart an, erst indirect, durch die zu erwartenden Folgen, der Zukunft; die Vergangenheit aber bleibt immer nur ein Object theoretisch reflectierender Betrachtung."—W. Wunder, Logik, Vol. II (1895), p. 628.

<sup>18</sup> J. Dewey, "The Evolutionary Method as Applied to Morality," *Philosophical Review*, Vol. XI, No. 2, March, 1902, p. 124.

19 J. DEWEY, Outlines of Ethics (ed. 1891), p. 177.

modern science. Those who think social science superfluous in ethics are just as far right as those who affirm that the world would somehow get on without chemistry, railroads, and the telegraph.

In Professor Dewey's illustration<sup>20</sup> of the conductor who determines his duty by thinking out all his relations and the facts of the situation, there seems to be one defect. No man can see all the facts of any situation with his own eyes. The whole fact for the intelligence is the whole science of economics, or rather of social politics. It is the race experience and race knowledge which should be decisive, not merely a survey of a given situation with unaided individual vision.<sup>21</sup>

Professor G. H. Mead <sup>22</sup> has touched our present problem very suggestively and recognized in principle the need of such a scientific discipline as is here urged. Possibly he leaves on the mind the impression that we can do no better than to judge of situations one at a time, "from case to case." But in practical social science we consider that system of things in which each case finds its place in an order. When he argues that we must constantly reconstruct our "world" we may take the word in its largest meaning, for the "world" in which we must place our new knowledge is the entire social order of the people among whom the problem arises.

Professor Simmel<sup>23</sup> has cultivated both fields, ethics and sociology, with distinguished

20 Op. cit., p. 178.

<sup>21</sup> On p. 179 Professor Dewey, who seems to have had much of the present argument in mind, follows his colleagues in handing the inquiry on to other disciplines: "The consideration of specific institutions, as the family, industrial society, civil society, the nation, etc., with their respective rights and laws, belongs rather to political philosophy than to the general theory of ethics."

<sup>22</sup> "The Working Hypothesis in Social Reform," American Journal of Sociology, November, 1899.

23"Von allen Wissenschaften befindet sich allein die Ethik noch in diesem niedrigen Zustand der Undifferenzierheit zwischen Theorie und Praxis, nachdem selbst die Theologie sich davon frei gemacht und die Medizin in dieser Sonderung schon soweit gegangen war, dass man schliessiche nergisch betonen musste, ihr Endzweck liege doch nicht in der Diagnose, sondern in der Therapie."—G. SIMMEL, Einleitung in die Moralwissenschaft, Vol. II, p. 410.

"Er fordert aber nun andererseits, dass die Moralwissenschaft zu der Beschreibung der wirklichen Vorgänge des sittlichen Lebens vorschreite, wie Geschichte und Statistik, Sprach- und Rechtsvergleichung, empirische Psychologie und Besitzlehre sie allmählich ermöglichen werden. Es wurde kürzlich eine Enquête in einigen deutschen Städten angestellt, um den Einfluss der Beschäftigung der Schulkinder mit Kegelaufstellen, Hausiren, Austrägereien, u. s. w. auf ihr Verhalten in der Schule und ihre Fortschritte zu ermitteln; obgleich die Resultate sehr unerfreulich waren, haben die kommunalen Organe, die die Enquête veranlassten, von einem generellen Verbot dieser Kinderbeschäftigungen abgesehen, um den Erwerb der betr. Familien nicht zu sehr zu schädigen. Dass die genaue Darstellung einer solchen Enquête und ihres Schicksals einen tieferen wissenschaftlichen Einblick in das Verhältniss von Intellektsbildung und persönlicher und sozialer Sittlichkeit gewährt, als die tiefsinnigsten prinzipiellen Erörterungen, die mit diesen abstrakten Begriffen als solchen operiren, ist mir unbezweifelbar. Die

Geschichte der englischen Fabrikgesetzgebung belehrt uns besser über das Verhältniss von Egoismus und Altruismus, als die scharfsinnigste Zergliederung dieser Begriffe und die Beziehungen zwischen Religion und Sittlichkeit werden durch keine so sinnige philosophische Konstruktionen so geklärt werden können, wie durch eine ethnologische Untersuchung über die gegenseitige Beeinflüssung ihrer ursprünglichsten Formen . . . .

"Wie in praktisch-sozialen Verhältnissen sich ein unfassendes Ganzes erst dann aus den Sondergruppen primitiver Sozialisirung herstellt, wenn das Individuum, dem diese frühere Form Gewalt anthat, zu vollem Recht und Ausbildung gelangt: so werden im ethischen Erkennen diejenigen allgemeinen Gesetze, die das sittliche, bezw. das soziale und religiöse Leben der Menschheit vielleicht als eine zusammenhängende, umfassende Entwicklung aufzeigen können, sich jedenfalls dort herausstellen, wenn den einzelnen historischen Thatsachen der inneren und äusseren Sittlichkeit die speziellste und individualisirendste Untersuchung zu Theil geworden ist."—Ibid., pp. 424-6.

We may add the remarks of SIGWART: "Einerseits kann die Ethik, wie die Logik, nicht einen Neubau mit einem Schlage aufführen; alles Handeln das sie verlangen kann, muss unter den gegebenen Verhältnissen und mit den gegebenen Mitteln ausgeführt werden; alles gemeinsame Handeln innerhalb einer Gemeinschaft von gegebenen Ueberzeugungen und Tendenzen, die nur allmählig umgebildet, corrigiert, und in Uebereinstimmung gebracht werden können. Wie von hier aus in der Richtung auf das Ziel fortzuschreiten sei, ist eine Frage, die sich nicht von dem rigorosen Standpunkt des absoluten Ideals auslösen lässt; die Continuität des menschlichen Thuns fordert ihre Rechte auf ethischem wie auf logischem Gebiete. Darum verwandelt sich die Ethik in ihrer unmittelbaren Anwendung sofort in die Kunstlehren der Pädagogik und der Politik, die auf die zweckmässigste Benützung der gegebenen Kräfte unter den gegebenen Verhältnissen angewiesen sind."-Logik, Vol. II (2d ed.), p. 746.

ability, approaching our subject from the traditional ground of philosophy; and he has urged with distinctness and power the necessity of further differentiation at this point.

We all cheerfully pay tribute of praise to the scientific character of those who interpret for us the reasonings of Spinoza, Kant, Locke, Hume, and Hegel. This is called "scientific investigation." In political science Aristotle is studied and fame is won for a discussion of his political works. Aristotle himself, however, went straight to the life of his own generation and won his place by a masterly analysis and comparison of the actual governments of his age. He found his principles of politics implicit in political life. Aristotle is often more dissected than followed, as Shakespeare is oftener praised than read. If we should carry out Aristotle's actual method we should gain our wisdom in relation to social conduct by comparing the methods of administering affairs in all modern countries where social welfare has actually been best promoted. For example, D. B. Eaton furthered the cause of the merit system in the United States, more perhaps than all the writers on ethics, by his account of the civil service reform in Great Britain. The present movement to improve municipal government in our country is aided by such works as those of Albert Shaw on European cities, for they set before us successful modes of conduct in the concrete, and leave the conscience without the excuse that men must be content with evils because no better way is visible.24

From a very different point of view an American writer on ethics has borne testimony to the necessity of a discipline which shall bring moral science into closer touch with the problems of conduct just where mankind must face them:

While the poet and prophet of the better world-age to come will always have their mission from God to comfort the heart of the people and to inspire the chosen servants of the social ideal with undying hope; still, a first necessity of reform, an indispensable prerequisite of political progress, is the science of sociology, with its painstaking inductions, and its careful classifications of the social structure, organs, and functions.<sup>25</sup>

From still another standpoint we have the testimony of a greatly honored writer on ethical philosophy:

Abstract thought is easy; concrete thought is hard. But it cannot be doubted that the time has now come to think concretely on these matters. The abstractions of our predecessors

24"The Church at large, and each national or local Church, is to be a society binding and loosing in the name of Christ: that is - so far as concerns morality - adapting Christ's moral teaching to the circumstances of each age and place; declaring this to be lawful and that to be unlawful; and applying these abstract principles to individuals in moral discipline. . . . . We need a careful organization of moral opinion - that is, a new Christian casuistry. The new casuistry will be a formulating in detail of Christian moral duty, with a view to seeing, not how little a Christian need do in order to remain in Church communion, but how a Christian ought to act. . . . . I think it would be possible . . . . to form small circles of representative men in each district, where special occupations prevail. or within the area of special professions, to draw up a statement of what is wrong in current practice, and of the principles on which Christians ought to act. A central body would meanwhile be formulating with adequate knowledge the general maxims of Christian living. I do not see why ten years' work should not give us a new Christian casuistry." - Gore, "The Social Doctrine of the Sermon on the Mount," Economic Review, Vol. II, p. 145, quoted by W. J. ASHLEY, Introduction to English Economic History and Theory, Part II, pp. 473, 474. On p. 388 Professor Ashley shows that in the Middle Ages the task we are now considering was undertaken by the church. "It may be urged that the economic teaching of the Middle Ages was really a branch of theology; and that modern political economy, being a science of observation, leaves to theology or ethics the uttering of moral judgments. But the duty thus handed over has obviously not been taken up. No such sustained and far-reaching attempt is being now made, either from the side of theology, or from that of ethics, to impress upon the public mind principles immediately applicable to practical life."

25 NEWMAN SMYTH, Christian Ethics, p, 442; cf. p. 407.

have their value: they have made possible a more perfect survey of the whole. But it would be fatal to content ourselves with their partial views. We must endeavor, as far as possible, "to see life steadily and see it whole." . . . . Want of clearness with regard to the objects at which we ought ultimately to aim, and with regard to the way in which ethical principles are to be applied in the concrete affairs of life, is largely responsible for the shortcomings of our modern civilization. The immediate claims of men's selfish interests have always a certain clearness and definiteness; and unless there is something equally clear to oppose to them they are sure to be victorious. . . . . So far as I can see, there is nothing of equal importance to be done in the present generation.<sup>26</sup>

The beginning of a new century surely sees us upon the verge of an analogous translation

of political and moral science into terms of application.<sup>27</sup>

The point made by Mackenzie is so important that it is worth illustration for our present purpose. The members of a trade union, backed by hundreds of thousands of votes, led by trained officials, often see with entire distinctness what they want; and they can formulate their demands before a committee of a legislature or of Congress. Usually with even more firmness of grasp the magnates of the financial world can outline a policy for corporative or legislative action.

But the great public flounders awkwardly, believes all kinds of contradictory stories, is hopelessly divided into factions, sees nothing clearly for the sand in its eyes, and finally pays all the expenses. The results are often pitiful. The streets are unpaved; the public schools are bankrupt; the teachers unpaid; taxes inequitably distributed; the public burdens fall most heavily on the downmost man; the legislatures and the councils harbor corrupt scoundrels; and civilization waits. The great public is a giant, but does not know what to do with his power. His conscience is not instructed. He would do right, but he does not know what social welfare requires in the given situation. While he is debating, tumbling things up and down in his huge chest, the representatives of special interests walk off with his treasures and treasurers.

In this state of affairs the abstractions and "general principles" which are true everywhere and forever, give about as much light as a star of the third magnitude. A tallow candle held near would serve a better purpose.

# THE OFFER OF SOCIAL TECHNOLOGY

Can sociology, in the present stage of its development, in any respectable measure meet the demand which we have seen to be so pressing? Can it assist, with its present methods, in answering more fully and distinctly than any of the traditional sciences these two questions: (1) What ought we to seek as ends of community conduct and co-operation? (2) By what methods can society most successfully work for these ends?

The only complete and satisfactory answer is the entire work of sociologists in this field; but a brief survey will indicate the outlines of an argument which grows stronger with all scholarly work done by this method, whether it is called sociology or something else.

<sup>&</sup>lt;sup>26</sup> J. S. MACKENZIE, "The Relation between Ethics and Economics," *Industrial Journal of Ethics*, Vol. III, April, 1893, p. 281.

1. What ought a community to seek as the ends for which its members co-operate? The answer is implicit in human nature and in the conditions of survival and progress. The claim of the sociologist is that the pursuit of his discipline has, more fully than any other, given an explicit statement of social ends.

Professor A. W. Small has summarized the results of numerous studies in the sentence: "Human association is a continuous process of realizing a larger aggregate, and better proportions of the health, wealth, sociability, knowledge, beauty, and rightness desires." This definition includes and surpasses the one element of welfare which belongs of right to economics—the element of wealth, and includes, perhaps surpasses, all that is implied in ethical science—rightness.

The criterion of ethics has been formulated by T. H. Green:

Does this law or usage, this or that course of action—directly or indirectly, positively or as a preventive of the opposite—contribute to the better being of society, as measured by the more general establishment of conditions favorable to the attainment of the recognized virtues or excellencies, by the more general attainment of those excellencies in some degree, or by their attainment on the part of some persons in higher degree, without detraction from the opportunities of others?

In respect to each element of welfare the sociologists, collecting data from all the special sciences, have worked out a method of testing the working of social agencies and modes of conduct by applying definite standards. This method is by no means perfect and exact, but it is far better than mere individual guesses and local opinions.

Thus, for example, we have fairly accurate standards of testing the results of a social organization in respect to health, derived from physiology and sanitary science. The budgets of families, now numbering many thousands, reveal the actual quantities of food consumed by persons in various groups of population; the expenditures for clothing, rent, and culture. The investigations of municipal authorities and private associations set before us the conditions of the residences of the people. The physiologists give us at least a minimum standard of food in calorics, and for housing, of air space, of light, and ventilation.<sup>29</sup> The statistics of morbidity, mortality and longevity, by sex, age and occupation, locality, class, demonstrate the results of defects in the conditions.

Turning to standards of wealth, we have at least approximately accurate minimum standards of income in relation to industrial efficiency, and the effects of various methods of the distribution of the national product of industry.

<sup>28</sup> American Journal of Sociology, January, 1901, p. 509. No one should judge this brief definition without carefully pondering the context Perhaps to the word "desires," we should add the words "interests" and "capacities," to prevent perversion in the direction of a narrow hedonism. See COMTE, Positive Philosophy, Vol. II, p. 40.

29 The thesis which I attempt to defend is that to make the most out of a man, to bring him up to the desirable level of productive capacity, to enable him to live as a man ought to live, he must be better fed than he would be by these [i. e., the antiquated and inferior European] standards. This is only a part of the story, but it is an essential part. The principle is one that reaches very deep into the philosophy of human living."—W. O. ATWATER, "Investigations on the Chemistry and Economy of Food," Bulletin No. 21, Department of Agriculture, p. 211; quoted by B. S. ROWNTREE, in Poverty, p. 92. Rowntree's book is a fine illustration of the application of a definite standard to social conditions.

Even so elusive a factor as "sociability" embodies itself in associated activities which are measurable.

The art interests are expressed in the means provided by a community for the cultivation and enjoyment of music, painting, drama; and statistics may show the number of teachers, students, and artists.

The scientific interests are expressed in the statistics of education; in the equipment of schools and colleges; in the extension of libraries, the publication and sale of books; in the ratio of graduates of colleges to the population.

Von Öttingen has carried the statistical method into the manifestations of morality, and in some directions the results are satisfactory in a high degree. Professor Giddings<sup>30</sup> has at least outlined the great "morality classes" and given the framework of a scheme of enumeration.

Who can doubt that the manifestations of religion itself will be treated as all other social phenomena are treated, and, so far as they are measurable, will come within the scope of social statistics? Few have ventured far into this difficult field, but a hopeful beginning has been made.

A definite minimum standard of what society ought to guarantee for every citizen can be erected even for education. What is the age limit of compulsory school attendance but just such a standard? Under some laws it is required that a child shall be able to pass a certain examination before it can be set to work in a factory. An educational test is proposed for raising the quality of immigration from Europe and of the suffrage in southern states of the Union. These moral standards are made more accurate and their demands more severe with the growth of wealth and culture. Laws and administrative regulations cannot be made until the moral requirement assumes a form and measure.

2. Up to this point it is generally acknowledged that genuine scientific work may be done. But upon the main contention of this paper there is more than doubt; there is general denial. Can sociology develop a *method* which deserves the name of science, which shall make social improvement a matter of knowledge? "Can we know what we ought to do?" is only another form of the same question. The answer must be the creation, out of materials not yet well assembled, of a science of "social politics;" politics in the Aristotelian, and not merely in the modern, sense.

Elsewhere<sup>31</sup> the attempt has been made to outline a provisioual division of the discipline which at least two students of the subject have independently called "social technology," because it deals with the technique or method of social conduct; and reasons were given for making this division: social technology of the domestic institution, of the rural community, of the urban community, criminal sociology, "social politics" (the industrial group), and others. It is not necessary to repeat that analysis, nor to refer to the attempts, published and unpublished, to lay the foundations for further systematic presentation of the subject. A large volume would be required for any one of these branches.

The remainder of this paper will be given to illustrations of the method within restricted areas of certain of these fields. Comte arranges phenomena and sciences in an order of increasing complexity and decreasing generality. The distinction is valuable in our inquiry. As we come to deal with practical science and make it immediately available as a basis for the art of social conduct, we find a higher degree of complexity and, apparently, less generality. Many scientific men are even disposed to regard the results as so petty and narrow in their application as not to deserve the name of science. A chemical or physical law, once established and verified, seems good for the universe and valid forever. But a mode of human conduct seems to be suitable and reasonable only for a part of the earth, for a brief period, for a class; and the more immediately useful the generalization, the narrower seems the range. is not always true. The best modes of conduct, in some fields, are laws of life for long periods and for mankind, while others are valid only while limited causes and forces remain the same. In relation to the most general aspects of social science, the generalizations which apply to all ages and peoples, we must be content with laws which touch practical life only when they are mediated by laws which are limited in range.

In the complex sciences the quality of exactness is only perceptible in their higher generalizations. . . . . The science that treats of that field [social activity] is an exact science if we only confine it to the most general aspects. It can only descend more and more into details as the data for such less general conclusions slowly accumulate and are arranged and co-ordinated for the purpose.<sup>32</sup>

In the science of social statistics we need the "law of the great number;" the suicides in a population of 1,000,000; the rate of wages in 100,000 cases; the prices in a long series of years; the marriages and divorces in 100,000, etc.

But there is another aspect of the case; general averages may include so wide a range of cases as to be worthless and false. The general average of income in all industries, all over the United States, has little significance; it casts no light on the condition of the poor and leaves us in the dark as to the condition of skilled labor and of capitalist managers. We must classify phenomena according to characteristic marks before we can find any true law (causal order) in them.<sup>33</sup>

Few, if any, of the great statistical writers have clearly and adequately stated the value of statistics in relation to practical social science. They have indicated its value in relation to explanatory science, and actually employed their method in testing practical measures. But one searches in vain in the best text-books for a definition of statistical science which fully recognizes its value in practical sociology. Yet here may be found, when once there is systematic effort, one of the largest spheres of usefulness. Social "working hypotheses," proposed experiments, methods actually under trial by cities and peoples, will more and more be subjected to statistical tests and positively promoted by them.

Professor Conrad drops a hint in this direction when he mentions the value of

 <sup>32</sup> Lester F. Ward, Education Report, 1899-1900, pp.
 1579 ff.
 33 G. von Mayr, Die Gesetzamässigkeit im Gesellschaftsleben. pp. 21, 22, 64-9; E. Levasseur, L'Ouvrier américain.

statistics in the practical physical science of medicine; and his illustration opens a vista for practical social science.<sup>34</sup>

In exact correspondence with medical science "social technology" proceeds; for it also proposes "working hypotheses," new forms of organization, new methods of procedure, and tests their results by comparative and statistical methods.

The medical practitioner can, indeed, try his drugs and surgery on the lower animals first, and even vary his hygienic treatment of men under his own conditions. The sociologist must usually secure the consent of communities to try their experiments on themselves. In a new country like our own, with forty-five independent states, one can watch this process of trial under varied conditions.

Precisely here lies the task of "social technology"—to guide these trials of form and method; to offer materials of knowledge which will save waste of time and money; to lay before isolated and adventurous leaders the results of race experience in the direction of their thought.

Practical sociology does not speak in the imperative mood. It simply shows the methods of organization and principles of social conduct which best promote social welfare. It speaks in the indicative mood. The ethical and religious nature of man sees that this conduct has spiritual sanctions. The legislator draws up the statute, thou shalt or shalt not, etc. The moralist and preacher arouse conscience and public opinion.

Our thesis that moral teaching is often impotent without the aid of a science of social politics may be illustrated by the sociological method of dealing with a problem like that of dwellings for the working people and the poor. Moral theory makes it plain that the community owes a duty to all its citizens, 35 and it is easy to prove that the character of the working people suffers from the conditions in which they are compelled to live at home. 36

The physiological minimum standard for a proper dwelling has been fixed so accurately by sanitary science that a community cannot plead ignorance.

There must be a supply of 3,600 cubic feet per head per hour for adult males; 3,000 cubic feet for adult females; 2,000 for children; 3,000 for a mixed community. The initial air space to secure this must be 1,000 to 1,200 cubic feet per person. The following sentence is quoted from *Theory and Standard of Hygiene*, by Notter and Firth:

The expense of the larger rooms would, it may be feared, be fatal to the chance of such an ideal standard being generally carried out, but after all the question is not what is likely to be done, but what ought to be done, and it is an encouraging fact that in most things in this world, when a right course is recognized, it is somehow or other eventually followed.<sup>37</sup>

34"Die Mediziner können bei statistischer Bearbeitung von 100 Typhusfällen über die Zweckmässigkeit der Kaltwasserbehandlung event. durchschlagende Beantwortung erziele, während es unmöglich ist, sämtliche Typhusfälle in einem Lande nach der angewendeten Heilmethode zur Untersuchung zu ziehen."—Statistik, p. 4.

35 It is now generally accepted that the laissez-faire doctrine is essentially immoral, as stated in H. Spencer,

Men vs. the State, and in W. G. Sumner, What Social Classes Owe to Each Other.

36 For example, see Paul Goehre, Three Months in a German Workshop; E. R. L. Gould, The Housing of the Working People; J. A. Riis, A Ten-Years' War; R. A. Woods, A City Wilderness; "Hull House Papers and Maps," etc.

37 B. S. ROWNTREE, Poverty, pp. 169, 172.

In the movement to make our cities conform to the conditions of human welfare, an exact statement of what ought to be done precedes legislative action. The vision of a definite moral requirement comes first, and here, as in the history of the factory acts, economists and statesmen finally came to terms with the moral demand. Of course, if it could be shown that the evils of bad housing were inevitable and incurable, and even economically or politically impossible of improvement, no social moral obligation would exist. But in this case of economics truth is distinctly on the side of a moral work which promises better life and even 4 per cent. profit to investors.

Consider the vast amount of social experience in all civilized countries which has been distilled, as roses from many lands, to furnish the following principles for the regulation of the industry of factory women. Mrs. Florence Kelley has drawn up a working program for legislation and administration which may serve as an ideal for backward communities: By organization to bring out of the chaos of competition the order of co-operation; trades unions for all wage-earning women; dissemination of the literature of labor and co-operation; the acceptance of a label which shall enable the purchaser to discriminate in favor of goods produced under healthful conditions; abolition of child labor to the age of sixteen; compulsory education to the same age; prohibition of the labor of minors more than eight hours, or in dangerous occupations; appointment of women inspectors, one for every thousand employes; healthful conditions of work for women and children. By legislation: Equal pay for equal work; minimal rate which will enable those paid the least to live upon their earnings.

Such regulative principles, while not pretending to universality, come nearer to actual life than more ambitious speculations, and their validity is verifiable by experience, which cannot be said of many interesting and magnificent social theories.

One is tempted to mention here the generalization of Mr. Kidd: "The science of social progress must be the science of the principles by which this subordination [i. e., of the present to the future race] is effected." Before this "Law of projected efficiency" becomes a real force in conduct, a thousand special fields of social action must be developed by "specialists in generalization." <sup>39</sup>

We believe that the science of jurisprudence <sup>39</sup> will derive great advantage from the cultivation of practical sociology. The study of law, whether of a given system or of many systems in comparison, or of a historical sequence, gives us after all—merely law. Practical sociology considers what the conditions of welfare require of social conduct and regulation in general; discovers the social duty. Part of this social duty can be fulfilled only through government, and, so far as this is true, we are in the realm of jurisprudence.

At a given time it is safe to assume that the existing constitution and system of law is approximately adapted to maintain order and secure civil welfare. But society never stands still, is never petrified. "New occasions teach new duties." Life expands and demands new forms of expression and regulation.

The new law or amendment cannot come from a study of constitutions or cases or statutes. It is not at all a question of what the founders of the republic intended, or what the Supreme Court has decided. Lawyers, as such, of course are bound by the law. But by citizens the law itself must be studied in the light of social requirements.

As a matter of fact, lawyers have been, in spite of their conservatism and regard for precedents, the best authors of amendments and revision of statutes, because they have been compelled by the pressure of experience to be sociologists as well as interpreters of texts.

It was not by a study of Blackstone that the law of property of married women was changed, but by a social discovery, by an observation of the industrial and moral development of modern peoples, by a recognition of the maladjustment of statutes to the modern needs and conscience.

The law relating to the liability of employers for accidents to workingmen is destined to pass through a radical transformation; but no light can come from a study of "cases" or of constitutions. The actual demands of the modern industrial organization will decide what is duty, and the moral requirements of public sentiment will make all previous court decisions so much rubbish.

It is not by studying statutes and historical methods of procedure that criminal law will be transformed, but chiefly by deeper knowledge of the criminal character and of the social conditions which create or modify that character.

Other illustrations could be drawn from every one of the new social problems which have arisen inevitably and naturally out of a healthy natural evolution. It is not here claimed that lawyers will need any help from sociologists. They may feel themselves entirely competent to construct their own sociology, although division of labor has some advantages. What we do assert is that a mastery of the "right" which must ultimately determine "law" (the Germans and French can use one word for both ideas, Recht and droit) will come from a practical sociology or a social ethics, and never from a deductive analysis of existing constitutions and statutes.

It could easily be shown that this method of gradual transformation of law is the most conservative and safe method, and is "radical" only as it works from the roots of social life and follows the course of human progress.

"International law" is defined in a recent text of as "a system of rules created by civilized nations, since the beginning of the Reformation, to regulate their intercourse with each other. . . . . The aggregate of rules regulating the intercourse of states, which have been gradually evolved out of the moral and intellectual convictions of the civilized world as the necessity for their existence, has been demonstrated by experience." While this definition is restricted to a branch of jurisprudence, and does not distinctly recognize a practical social science for its basis, such a science is implied and its nature and sources are indicated. For the actual system of rules called "international law" is the formulation of a part of the laws of welfare which are demonstrated by experience.