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Author(s): Marie Collins Swabey

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## PUBLICITY AND MEASUREMENT

MARIE COLLINS SWABEY

**N**OWADAYS in considering methods for realizing democracy, the student of political philosophy is being led to subordinate questions of the franchise and the machinery of popular elections to problems concerning the use of publicity and measurement. For it is coming to be perceived that, if the people are really to be arbiters of their lot, they must be in a position to judge their situation fully and intelligently; and that the assurance of this entails the development of a vast system of ways and means whereby knowledge of fields affecting public welfare can be brought home to popular attention in an accurate, impartial manner. Otherwise, where the public remains uninformed on questions vitally concerning it, the will of the majority, despite a smooth-running machinery of government, is little more effective than a blind leading of the blind. As to the instruments for enlightening the public regarding affairs, none appear to be of greater importance than those of measurement and publicity.

The term "publicity" is used to indicate both a state and a function. As a state, it connotes the condition of being open to the observation of anyone and everyone; while as a function, it has come to signify any organized attempt to disseminate ideas among the people at large, often with a view to equipping them for some course of action. In this broad sense, publicity must obviously be taken to include not only education but all means by which information and doctrines can be imparted to the masses of citizens. As for measurement, since it is to be treated in this article mainly as part of the technique of publicity, its discussion may be postponed for the time being.

Perhaps no thinker has seen more clearly than did Immanuel Kant the logical and ethical significance of publicity for republican government. In his essay on *Perpetual Peace*, Kant declares, "All actions relating to the rights of other men are wrong, if the maxims from which they follow are inconsistent with publicity"; to which he adds the even more striking correlate, "All maxims which require publicity, in order that they may not fail to attain their ends, are in agreement both with right and politics."<sup>1</sup> That publication should thus be made the criterion of public right in the Kantian system arises apparently from the fact that it offers the most feasible way in which the logical tests of truth, namely, universality and consistency, can be applied to the world of concrete social relations. If the principles of political action will not bear the light of day, it seems likely that they harbor inconsistency, unjust preferences, or groundless exceptions. Otherwise why should they not be made available to everyone affected in a given situation? If it be objected that the public is not the best judge of its own interests, the Kantian must reply that at least the public has a right to judge of it. Secrecy breeds suspicion, distrust, and social unrest. And these in the state would seem to constitute a greater danger than the risk of popular misunderstanding in which a cause is exposed to the public view. After all, in cases in which the general welfare is concerned, good reasons if plainly set forth ought to make their way among honest minds; at least such is the postulate of democratic theory. Hence publicity in government comes to be looked on as an assurance of good faith and equitable administration; for truth, as the saying goes, ever loves open dealing.

<sup>1</sup> I. Kant, *Perpetual Peace* (trans. by M. Campbell Smith), pp. 185, 195. Cf. Woodrow Wilson's advocacy of "pitiless publicity" and declaration in favor of "open covenants of peace openly arrived at, after which . . . diplomacy shall always proceed frankly in the public view." Indeed, a striking parallel may be drawn throughout between the articles of Kant's treaty for perpetual peace and President Wilson's program of world-peace set forth in his address to Congress, January 8, 1918.

In addition to insuring uniform or consistent treatment, publicity serves to test the possible universality of a course of action. It is not enough, in cases in which political rights are involved, for a citizen to trust his individual reflection alone, and to allow his conscience to be satisfied if he himself can answer affirmatively the question, "Can I will what I will for everybody, not excepting myself?" Not enough that, thinking through the implications of his deed to its extremity, he does not himself foresee any irreducible conflict with his fellows. In questions of political right, it is important to test our personal insights by bringing them to the touchstone of other minds and institutions. For in the course of being challenged by many minds, plans are shorn of their idiosyncrasies and reveal whatever is of essential worth or generality in their natures; with the result that in the long run those that run the gauntlet of popular criticism are usually consonant with public welfare.

However, publicity is not merely a device for canceling out the private opinions of *men* in an effort to obtain the public opinion of *man*; it is a positive means for realizing a program. Indeed, there would seem to be a class of proposals commendable both morally and politically, which can only hope to attain their ends if they are backed by the most assiduous technique of dissemination and advertisement. If Kant's second maxim is correct, they may even be right precisely because they require publicity. At any rate, when the success of a cause is made possible only through the thorough arousal of the popular will, we feel fairly sure that the project is one that touches the general good. A little farther back we spoke of publicity as a function. This means that it is not enough that information should be simply on file in public places or theoretically accessible to the people at large; it must be spread abroad, diffused, circulated, if ideas are to make any serious impression on the community and enlist active resistance or support.

Here, of course, the difficulty of distinguishing publicity from propaganda emerges. Once the necessity of publicity is admitted as an active organ of instruction in the state and a means of creating intelligent public opinion, its definition becomes of great importance. Regarding such problems as child labor, sanitary regulations, and prohibition, there can be little question but that without a campaign of education carried on by a minority of supporters through many years, successful legislation in these fields would have been impossible. Yet here, as elsewhere, the distinction of legitimate publicity from propaganda is no easy matter. While the right of free speech is supposed to be guaranteed to everyone under a popular government, it may be questioned whether this implies the right of every special pleader or advertising agent to attempt to sell his cause to a defenseless public. In a sense, of course, all zealous planning and organized activity in disseminating ideas may be called propaganda. Nevertheless a very real, though perhaps vague, division is recognized as separating practices along this line into the justifiable and the unjustifiable.

Some have placed the root evil of the latter sort of propaganda in the anonymity of its source. Having as its essential features the suppression of the origin of purported information, its technique is often marked by the spread of rumors and insinuations, by whispering campaigns, and the publication of unauthorized findings and reports. On this view, the injurious effects of propaganda are ascribed to its success in evading responsibility for exaggerated, if not actually false, statements. One of the duties of a society which tolerates free speech should certainly be, as is often recognized, the cultivation of a correlative principle of accountability for such speech. At present the need in this regard is not so much to strengthen the laws against slander or penalties for fraudulent use of the mails in speculative advertising as to create a widespread sentiment against such irresponsible practices.

Still others find the essence of propaganda in its implied suppression of free speech. Propaganda, on this view, is not only negatively dependent upon censorship, but is positively characterized by the policy of withholding from the public knowledge of certain facts in order to strengthen the impression made by other facts released by the censor. While propaganda in this sense of letting the public know only what certain persons in power want it to know need not involve direct falsification, nevertheless in omitting (for special unavowed reasons) all mention of some integral phase of the facts, it violates the spirit of truthfulness. Yet such practice is often widely approved, as in the case of the suppression by governments in war time of unfavorable news from the battle-front in order not to injure the morale of their nationals. And in peace time a virtual governmental censorship subsists in most democracies to restrict freedom of speech when it verges on blasphemy, sedition, or obscenity.

Even in fields where no authorized censorship is admitted, propaganda will still be found wherever the government has power to control the selection of facts. For the essence of propaganda, it may be said, consists in choosing what shall be placed before the public. Certainly no problem is more determining in human life than that of the discrimination of facts. In politics no less than in science or art, if a man's reading of the data is determined by some scheme for private advantage or by emotional prejudice, his choice is not likely to reflect accurately the objective constitution of the material. Trustworthy knowledge in any field is purchased at the price of scrupulous objectivity. But when, as is often the case, private interest and personal ambition crowd out the devotion to truth propaganda is the result.

Yet another view of propaganda emphasizes that its appeal is especially directed to the instincts and emotions, and that it endeavors to persuade rather than inform. Whereas a system of legitimate publicity would gather the news and

leave the public to form judgments for itself, propaganda, because it aims at action instead of enlightenment, attempts to make up people's minds for them. Although the technique employed by propagandists to influence popular behavior varies, it usually seeks by one means or another to go back of intelligence to primary organic motives, such as hunger, fear, pugnacity, or sex. For not only are these central impulses closely connected with the motor mechanism (and hence readily lead to action), but their excitation tends to spread, by a kind of contagion, so that many men come to share the same emotion, and what is known as crowd-mindedness results. Once this herd spirit is created, the susceptibility of the group to suggestion and their docility to leadership is greatly increased, which gives the propagandist his opportunity.

Thus recent forms of propaganda claim to influence human behavior by taking advantage of certain psychological laws. Visual and auditory appeals, for instance, are addressed to the public from countless billboards and radios in behalf of specific enterprises and commodities. And the desired suggestion is repeated thousands of times on the assumption that, by the law of the conditioned reflex, the millions of minds exposed to the same stimuli must on the whole tend to have the same favorable response. Amusing variations on the argument from authority, based upon the prestige of numbers, custom, or leadership, are used to capture the crowd's interest in all sorts of objects. "Key men" in the sporting, financial, and political worlds are approached and induced for one consideration or another to lend their endorsement to everything from a cigarette to a constitutional amendment.

In all these devices the aim is to lead the public to accept something through establishing an association or emotional atmosphere in regard to it which shall insure its favorable reception. Sometimes this statagem of "creating a demand" for certain ideas takes the form of conditioning the public against

opposing ideas by arousing vague fears and suspicions of them. On the other hand, one of the surest ways of recommending a particular article or idea is through associating it with the comfortable organic states and familiar prejudices of a community. But, in either case, apparently the success of the result depends upon artfully arousing the human animal, ever "hungry and hounded, spying and taking alarm" (to borrow a phrase from Mr. Santayana), and converting his kind into a yapping pack in pursuit of what the propagandist wants him to want. The fundamental objection to such tactics, if there be one, is simply that emotional contagion tends to confuse the mind rather than to clarify it; with the result that such a course leads to a blinding of public apprehension instead of to an increase in perspicacity and insight.

Indeed, looking back over the various aspects of propaganda, we are led to the conclusion that it differs from publicity mainly in two respects: first, in its aim, which is the control of actions rather than the enlightenment of minds (by which latter men might become capable of self-control); and, second, in its means, which is to stimulate the affective side of man so that he shall want to do certain things that other people want. For propaganda is apparently a conscious, organized attempt to influence the behavior of men on a large scale through methods of emotional suggestion and sensuous appeal, rather than through reflection or education by the facts themselves.

Of course, some political realists may question whether publicity in any other sense than the foregoing is feasible as a practical instrument of government. Wherever ideas are disseminated on a wide scale, they will say, the inevitable affinity of the human mind for propaganda is bound to be exhibited. So long as the choice of what is to be published has to be made *by* somebody (with specific interests) and *for* somebody (*viz.*, for a public that reads only in its slack moments for recrea-



tion), the material selected must reflect both the intellectual lassitude of the audience and the special bias of the editors. After all, there is no use in printing what will not be read; slight value in telling people what they *ought* to be interested in for their social and political welfare, if as a matter of fact they are not. Usually the publisher who undertakes to do so courts financial disaster. For himself, at any rate, he would apparently do better to cater to the instincts of *demos*, and give the people the news they want; tales of horror, laughter, tears, and personalities. The difficult fact must be recognized that, in the words of Walter Lippmann, "the items the public finds interesting do not often coincide with its real interests."

But if democracy is not to be abandoned, some attempt must be made to devise ways in which what is of genuine public concern may be made to concern the public. Despite the increased and unflattering knowledge of human nature that has followed the growth of evolutionary biology, man should still be able to direct his efforts toward self-government, and to develop a technique of publicity by which (without arousing crowd emotion) important general issues could be clothed in simple, appealing dress so as to claim the attention they deserve. For, after all, man is still a thinking as well as a feeling animal. And the problem before him is largely one of presentation. That is, the way questions are put often determines whether or not the public will be vitally concerned with them. On the one hand, as the technique of propaganda has shown, ideas may be rendered attractive by establishing unconscious associations between them and specific reactions of the nervous system; or, on the other hand, issues may be made to appeal directly to reflective consciousness by utilizing man's intellectual interests in art and science. This second method, which essays to engage the popular mind at the level of its aesthetic experience and curiosity for exact knowledge, is the one here taken as the ideal of publicity. The time has passed when it can be questioned whether the masses of men

have such tastes. But the great problem of presentation remains a problem primarily of simplification: how to pose complicated issues in an uncomplicated way so as to gain popular notice. For the solution of this difficulty we must look, in our opinion, chiefly to art and science as the means best adapted to acquaint men with their problems by revealing facts in their dramatic and regulatory significance.

The educative power of art has, indeed, rarely been challenged since the days of Plato and the Greek city states. The drama, the oration, the lyric, the epic poem, and later the novel have admittedly all played important parts as purveyors of social and political ideas to mankind. Painting and music also, although probably to a lesser extent, have helped to convey to a wide audience in an immediate, effortless way something of the spirit of each age, of the patterns and problems that confront it. And in our own day the influence of the motion picture has helped to bring about revolutionary changes in the social life of many countries. In communist Russia, for instance, the cinema has been employed from the first as a great means of mass education. For in this new democratic theater the Russians perceive that they have an instrument of publicity which can convey a message to all races, classes, and localities. With its aid new standards of living are being introduced, instruction offered in the use of agricultural and industrial machinery, and propaganda carried on in favor of communism and against alcohol—and religion.<sup>2</sup>

While in many respects the social effects attributable to the radio are like those resulting from the motion picture, there are others quite different, which seem to mark the opening of a new era in modern politics. By this means the classical and Rousseauian ideal of direct democracy becomes capable of realization (at least in a phenomenalistic sense) on an un-

<sup>2</sup> Leon Trotsky, *Problems of Life*, chap. iii. Indeed, some communists foresee in the development of the motion-picture theater a substitute for the saloon and the church which will in time mark the obsolescence both of vodka and ecclesiasticism.

dreamt-of scale. Through the instrumentality of the radio, wireless telegraph, telephone, and television, simultaneity of voice and action becomes possible to a community of many millions scattered over thousands of miles. By these mechanisms political leaders can speak directly to their constituents at any time on important matters. What is almost more striking, they speak not merely to a limited audience gathered in some public hall, but intimately to the family group as a unit within the walls of countless private homes. Already the potency of this new factor is making itself felt. In the United States it is no uncommon spectacle for a political executive to appeal directly to public opinion over the radio for support in conquering the opposition of a hostile legislature. And in the near future the problems of phenomenalism (whether a world of floating percepts can be successfully substituted for substantial social reality, and in how far personality can be projected through the correlated data of voice and image by television and radio, without the bodily presence of the speaker) must become matters of serious political moment.

As to what will be the result of this intensive cultivation of "personal" relations between the leaders and the people, one can only guess. That the feeling of national solidarity will be intensified and that in general the public will be better informed on the issues of the day seem more or less certain, when one considers that for the first time in modern history the masses of men are gaining something like direct access to the chief events in the nation's life. And since by the same devices they are coming to enjoy attendance, not only upon political caucuses, but upon stock-market transactions, theatrical productions, concerts, lectures, and news reports, it is not surprising that widely separated classes should develop a new community of interest in institutions that were previously only of highly specialized concern.

Yet despite these increased opportunities, there is a growing question whether the conditions of the present era really

favor the growth of genuine public opinion. When one weighs the forces of reiterated suggestion in the ever present voice of the radio and the inevitable trend toward same stimulus same response in human behavior, the chances of avoiding crowd-mindedness on a scale greater than ever appear somewhat doubtful. Although each individual is technically in a position to "hear" and to "see" for himself, this does not guarantee that he will be able to resist microphone dictation, or strong enough to contribute constructive insights of his own toward the formation of liberal public opinion.

However, at least one suggestion may be offered for combating these dangers of a supine public under the control of propagandists and commercial advertisers. This proposal is for the development of a great national bureau of publicity. Through the growth of a judiciously handled intelligence organization directed by the state (which should include a federal broadcasting service and other branches, a great deal might be done, as it seems to us, to arouse the public to freer, more enlightened reflective activity. The aim of such a bureau would be the collection of information on all socially important subjects and its dissemination to the country at large by means of the various scientific and artistic devices of the day. A first requirement would be to secure a highly trained personnel devoted to the ideal of scientific publicity, which would undertake as a public trust to furnish the nation with a faithful record of the leading social, scientific, and artistic advances of the time. In developing such a vast nonpartisan organization, the bureau might learn many things from the great press associations of the world and the relations which they maintain with their newspaper members. Indeed in the field of broadcasting, these might well serve as models for determining the connections between the federal office and local stations.

But, obviously, the duties of such an intelligence service would not stop with mere broadcasting. One of its primary

functions would be the accumulation and organization of socially significant facts as well. In many respects the plan would coincide with Walter Lippmann's proposal<sup>3</sup> for the establishment of a governmental office to act as a clearing-house of information upon industrial and political problems. According to his suggestion, such a bureau would have at its disposal a trained staff of investigators, a large reference library, free access to governmental archives and institutions, as well as materials for analyzing social phenomena by a statistical technique. But whereas the chief function of such an office on Lippmann's view would be to prepare the facts for the use of the executives in control of the administration, the service we have in mind would be even more concerned with distributing information to the country at large. In other words, the institution which we are envisaging would serve, not only as an intelligence bureau for the government, but as a publicity and educational bureau for the people. It would function as a great news agency for the education of the common man, preparing him to participate to a greater extent than hitherto in political affairs.

Although hitherto we have dwelt upon art as a means of publicity, science through its inventions and technique of measurement, appears no less able to convey complex subject matter to the popular mind. Yet, oddly enough, many of those who set the highest value upon the contributions of science to modern life deny its capacity to educate the common man politically. The lesson of science, they maintain, is that the government like every other complicated business must be left to experts. It is sheer foolishness to imagine that the masses of men could by any technique of scientific publicity be provided with the capacity and information necessary to

<sup>3</sup> W. Lippmann, *Public Opinion*, chap. xxvi. According to his idea, a permanent intelligence section might be organized around each of the federal departments represented in the cabinet, and the group of them so interrelated as to form a fixed body of research and information. The same plan, he thinks, in its essentials might be extended to state governments.

decide the intricate problems of the modern state. How should the average man be expected to have reliable views even on leading domestic questions, when they involve such issues as the cornering of raw markets, the building of dams, canals, and other engineering projects, intricate tariffs, transportation and postal rates, the development of superpower, and the control of air routes and radio waves? Knowledge of these fields must inevitably remain the possession of the very few with the time and ability to devote themselves exclusively to them. So, in the name of science, recent critics of democracy advocate the eclipse of the common man in favor of the specialist in government on the ground that the extremely technical character of modern administrative problems renders it impossible that the people in general should be competent to pass judgment on them.

Perhaps the major issue of modern democracy rests just here: whether it is any longer possible for the faculties of the ordinary man to compass the cumulative intricacies of the environment. While civilization is apparently increasing in complexity at an accelerated rate, man's intellectual and political capacities remain simple and constant. How, then, can the logic of events be circumvented which is depriving the masses of their share in shaping the policies of government, and is concentrating authority in the hands of a few specialists who alone seem able to grasp the involutions of the modern system?

Some attempt to answer this question, though admittedly going against the spirit of the day, seems necessary. For, if we are not mistaken, a very real danger lurks in the loss of political courage and of a broad-gauge view of things, which comes of relinquishing general responsibilities for a policy of extreme specialization. When the growing complication of the environment is cited as a decisive obstacle to popular knowledge, one may reply of course by pointing out that, so far as the basic physical and chemical constituents go, the environ-

ment is precisely as constant as is the native intelligence of the average man. After all, complexity inheres not so much in the substance of things as in their arrangements, the whole intricate spectacle arising, according to modern belief, from the disposition of a few simple elements. But since there is no question as to the competence of the average man to grasp the ways in which things can go together according to the primary laws of logic and arithmetic, so similarly there would seem no good reason why this same man should not be able to comprehend the essential combinations out of which modern civilization is elaborated from the same elements, provided he were shown how to go about it.

After all, a great deal has been done in the modern world by means of the method of quantitative analysis. By breaking wholes into parts and studying their subdivisions, human wits have again and again proved a match for intricate situations. Yet what tends to be overlooked is that the process of analysis is as much a matter of simplification as of specialization. By resolving complex events into more elementary units, man succeeds in making plain to himself otherwise incomprehensible states of affairs. Not only this, by the same process by which the technician is able to make clear to himself the nature of things, he is also often able to convey the results of his investigations to the less expert members of the community. What needs to be recognized is that, in many cases, quantitative analysis and measurement offer the best means so far discovered for spreading knowledge, as well as providing a reliable body of knowledge which is worth circulation.

Thus, almost without being aware of it, we have been brought back to the subject of measurement. The most critical problem confronting democracy today, we have tried to show, is one of presentation: how to reduce complex bodies of facts to a form that shall be popularly intelligible. Only if this problem can be solved—that is, only if widely successful devices for the simplification and popularization of ideas can be

found—does the continuance of self-government seem possible. In the statistical method of the sciences, man has at his disposal a powerful instrument of measurement which also serves as a means for the diffusion of knowledge. The unique advantage of statistical methods so far as politics is concerned is, of course, that they can combine numbers with pictures, science with art, quantitative estimates with publicity value. A pictogram on a poster, for instance, representing soldiers of different heights can accurately and instantaneously inform the larger public as to the comparative sizes of the different armies of the world, or a sectored circle can render public accounting of the division of expenses in a governmental project. While the pure scientist may be better satisfied with a mathematical formula, not so the common man. He hankers for an image to drive home the point. While what tells upon his mind is the quantitative fact, he needs imaginative aids and analogies with familiar experience to appreciate it. But today almost every literate person is familiar with, and open to, the appeal of averages. Hence things like wage scales, trade curves, census tables, and agricultural reports need not fail of a popular hearing provided they are colorfully and dramatically conveyed by the proper statistical technique.

It is a commonplace that modern democracy subsists in the midst of a statistical age, in an era which deals with large masses of facts by averages and proportional estimates. Not only are these methods employed in practical affairs (such as business management, actuarial calculations, market prices) and in the physical sciences, but they are now generally recognized as contributing all that can be called scientific to the data of modern sociology and politics. Our excuse here for dwelling on matters so obvious is that their implications have not been seen. For what has not been fully appreciated is that through the skilful use of charts, graphs, and pictures summarizing these vast stores of data the modern state has a method available for communicating what is known about the



people to the people themselves. By such means, the public which has neither the competence nor the interest to go into the intricacies of political problems might nevertheless be informed clearly, dramatically, and with a fair degree of accuracy by the specialist of the outcome of his long, involved investigations.

There are, of course, different kinds of measurement: exact and inexact, individual and collective. Although exact individual measurements are necessary to the government in such matters as census-taking, taxation, and voting, there is also need for measurements of an inexact statistical type. For when, as so often in political matters, men are called upon to form opinions regarding large groups of phenomena and to decide what will benefit the masses rather than the individual, hardly any other method is comparable with the statistical in making such collective estimations possible. But owing to the many variable factors involved, and to the difficulty of obtaining first-hand observations in the case of phenomena so vast and in large part so uncontrollable, comprehensive social measurements are hard to obtain. However, as compared with other agencies, the government is in a favored position for their collection, for the reason that it alone is provided with compulsory powers and an administrative machinery adequate to the task.

The advantages of the use of measurement in political affairs are manifold. The distinctive feature of measurement is, I suppose, that it sets up a more or less definite quantitative unit and considers data in terms of that unit. It thus makes possible the calculation of results in a more uniform, precise, and impartial fashion. Not only does this make for an increase in efficiency, but it carries questions over from the field of "personal opinion" to that of mathematical reckoning, where a basis of agreement is more readily procurable.<sup>4</sup> As for the peculiar publicity value of statistics as a means of impart-

<sup>4</sup> C. E. Merriam, *New Aspects of Politics*, chap. iv.

ing the condition of the country to the ordinary citizen, this has been already touched on. If properly handled, as it seems to us, these statistical results might serve as a social telescope or microscope to the average man, extending his range of vision and revealing life in the light of an astonishingly new and plain analysis. At the same time, while furnishing the material of the argument, the statistician would leave the observer free to draw or not to draw a conclusion in his own way.

Political questions have too often been approached in a hazy, verbal, emotional manner, and their solutions based upon a smattering of unorganized facts or upon uncritical personal experience. In politics as in certain pseudo sciences, the phrase-maker and the orator have done their work, building up an elaborate nomenclature to conceal the lack of exact concepts and systematic method. Historical, common-sense, and literary studies of government, together with those based upon loose analogies between the state and the organism or machine, have also done much to delay the development of quantitative social research.

But in dealing with complicated social questions such as the causes of poverty, disease, criminality, agricultural problems, and so forth, severer methods are needed. More and more the solutions to these issues are being sought by statistical means. That is, the issues are defined in terms of certain variables and, on the basis of a careful analysis of observations covering a wide field, the degree of correlation, if any, is determined between these variables. In framing such problems, the definition of the phenomena in quantitative form is desirable. Then follows the tabulation of a large body of observations, the analysis of these by means of ratios and averages, and the expression of the result in charts and graphs. Throughout the process, the study of variations (i.e., changing phenomena) and the careful notation of any tendency of these to exhibit correlations (i.e., to vary together—either in the same or opposite directions) is important. For wherever a

correlation appears (as, for instance, between death-rate and urban density in a municipality), it is likely that a genuine causal relation has been found. Not that we can assert that every correlation indicates a genuine natural law; but it would seem that all laws do involve correlations.

To be sure, the handicaps incident to the statistical method can never be wholly discounted. Chief among these are the great number of variable factors involved, the difficulty of finding adequate units of measurement, and the inapplicability of statistics to uniquely novel situations. The fact is that statistics deal with entities as if they were logical simples, and with their ratios, correlations, and variations. But in so doing they almost wholly neglect the individual, qualitative side of things. Thus the statistician can tell us the mean free path of the molecule of a certain gas; he can predict the increase in population in the United States or the Dakota wheat crop from the tables of precipitation and temperature; and he can arrange school children in the order of their relative I.Q.'s. But at the same time he cannot tell you what is the personality of a specific child, the exact behavior of a particular molecule, or whether a given farmer in South Dakota will have a wheat crop above or below the average. Presumably there will always be a conflict between the symmetry of the outline of the statistical picture and its accuracy in detail. But something may be foregone in the precision of minutiae to see things in their right proportions. After all, in dealing with large groups of people, what is needed above everything is perspective. Just as when you stand too close to a large object you lose its contour, so, similarly, in confronting massive social problems the individual method almost inevitably exaggerates trifles and loses sight of the whole. However, this narrow individualism can be overcome and men's minds trained to more comprehensive views of things by the use of statistics.

What would seem to be needed is the slow, careful formulation of precise concepts in political thought, together with a

vast increase in governmental reporting, and the accumulation of statistical information covering sociological, economic, as well as strictly administrative material. Along with this goes the need for the development of the survey, for the more intensive local study of particular samples of social phenomena, which may serve to throw preliminary light upon the conditions of large-scale procedure. Finally should come the growth of a great central clearing-house of information, such as was spoken of earlier in this article, which should have as its function the organization and distribution of facts to the citizens at large. This would mean nothing less than a new system of public education, by which the whole field of knowledge would be surveyed by experts, and the resulting information on leading questions presented to the people in simple, forceful, and attractive form. Perhaps it is not too much to hope that when such a bureau of publicity and measurement shall be realized, the common man will be aroused to a more active participation in social problems and the management of political affairs.

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