

**PART I**  
**EXPERIENCE AS SELF-SUSTAINING AND**  
**SELF-RENEWING PROCESS**

VICARIOUS EXPERIENCE: ARE EXPERTS THE REVEALERS OF TRUTH?

THE most striking characteristic of the thought of today is the trend toward objectivity: psychology has given us behaviorism, political scientists are emphasizing “accurate information” as the solution of all our difficulties, and jurists tell us that law must rest not on abstract principles but on social facts.

The present apotheosis of the expert, the ardent advocacy of “facts,” needs some analysis. The question of democracy is often discussed on the assumption that we are obliged to choose between the rule of that modern beneficent despot, the expert, and a muddled befogged “people.” If the question were as simple as that, most of our troubles would be over; we should have only to get enough Intelligence Bureaus at Washington, enough scientific management into the factories, enough specialists (on hygiene, transportation, etc.) into the cities, enough formulæ from the agricultural colleges into the country, and all life would become fair and beautiful. For the people, it is assumed, will gladly agree to become automata when we show them all the things—nice, solid, objective things—they can have by abandoning their own experience in favor of a superior race of men called experts.

While I am sure that in the present appreciation of “facts” we have the most hopeful promise for our confessedly fumbling world, the most needed corrective for certain attitudes of mind into which we have fallen, while I know from experience that we often waste time in conference arguing about things that are ascertainable, still there are several points which must be remembered: it is of equal importance with the discovery of facts to know what to do with them; our job is to apportion, not usurp, function (the “people” have a place, what is it?); and also we must warn ourselves that a little of the ready reliance on the expert comes from the desire to waive responsibility, comes from the endless evasion of life instead of an honest facing of it. The expert is to many what the priest is, someone who knows absolutely and can tell us what to do. The king, the priest, the expert, have one after the other had our allegiance, but so far as we put any of them in the place of ourselves, we have not a sound society and neither individual nor general progress.

To overemphasize the importance of the expert would be impossible, but after we have fully recognized his value to society, there still remains to be considered the legitimate relation between expert and people. For a generation the slogan has been investigation, research, survey of cities, scientific management, social engineering, etc. Yet through all this steadily increasing appreciation of facts, the question that has recurred to us again and again has been: what is the relation of all this to the rank and file of the people? This is what is in the mind of the president of the industrial plant as he reads the report of his scientific

manager; everyone who has taken part in any municipal reform finds this the crux of his problem.

I do not think that the solution of this problem is to be found in that doctrine known as “the consent of the governed.” To divide society on the one side into the expert and the governors basing their governing on his reports, and on the other the people consenting, is, I believe, a disaster-courting procedure. Yet this does not mean, on the other hand, that “the people” are to be unduly exalted. Formerly the supporters of democracy, concerned with the machinery of government, aimed to find those forms which should give voice to “the people,” but for some time now we have not given much thought to this consideration: the thinkers certainly have not, and the community centre movement, the workmen's education movement, the cooperative movement, to mention only two or three, are not based on the assumption that the will of the people is “instinctively” good, and that our institutions exist merely to get at this will, to give it voice, etc. The essential aim of these, the most democratic movements we have, is to train ourselves, to learn how to use the work of experts, to find our will, to educate our will, to integrate our wills.

The greatest flaw in the form the theory of consent sometimes takes today is the assumption that the automatic result of scientific investigation is the overcoming of difference. This view both fails to see the importance of diversity, and also ignores the fact that the accumulation of information does not overcome diversity. This seems to me a point sufficiently important to warrant some consideration. Daily, hourly I might say, we see the failure of facts to produce unanimity

of opinion. Our Supreme Courts try honestly to get the facts of each case, but the result is not unanimous decision. Boards are constantly sitting which employ experts and then view and discuss the facts obtained; those who have sat on such Boards know that difference of opinion has not been overcome. It is always the inexperienced man on the Board who brings in his "facts" and expects that the *impasse* of the previous meeting will be removed. Can you not see him in your various memories, smiling round at his companions in this happy expectation? And can you not see that smile gradually fade as the expectation fails?

We need experts, we need accurate information, but the object is not to do away with *difference* but to do away with *muddle*. When for lack of facts you and I are responding to a different situation—you to the situation as you imagine it, I to the situation as I imagine, it—we cannot of course come to agreement. What accurate information does is to clear the ground for genuine difference and therefore make possible, I do not say make sure, agreement. The object of accurate information is not to overcome difference but to give legitimate play to difference. If I think I am looking at a black snake and you think it is a fallen branch, our talk will be merely chaotic. But after we have decided that it is a snake, we do not then automatically agree what to do with it. You and I may respond quite differently to "black snake": shall we run away, or kill it, or take it home and make a pet of it to kill the mice? There is now some basis for significant difference. Difference based on inaccuracy is meaningless. We have not done away with difference, but we have provided the possibility for fruitful difference.

To be sure, we need certain scientific information to help us make this decision. We shall have less tendency to run away when we learn that black snakes are not poisonous; but then we learn that they belong to the constrictor class, and some of us do not like even harmless snakes wound round our throats; still the risk of that is slight and my house is overrun with mice and another scientist tells me both that you can make pets of black snakes and that, they are our best mice-hunters. And so on and so on. I am dwelling on this point because I want to make it clear that I think the possibility of a wise decision depends on just as much scientific information as we can acquire. I wholly agree that the number of decisions people are willing to make daily without such information is amazing, and yet I think that after we have obtained the greatest amount possible, there will still be difference, and that dealing with difference is the main part of the social process. President Lowell, in his recent book *Public Opinion in Peace and War*, says: "It might be supposed that men of equal intelligence without prejudice or bias would on the same evidence reach the same conclusion, but this is by no means always true."<sup>1</sup> The effect of the impact of facts upon us is not automatic, instantaneous and idea-levelling.

Moreover, the difficulty of securing accurate information is very great as evidenced by the frequency with which experts disagree. Two experts talking together do not always impress us with their unanimity. We have most of us listened to the "facts" produced at

1 P. 15. Mr. Lowell then gives illustrations of this and adds, "Divergences of opinion result in a large part from attaching different weight to various factors in a problem." Mr. Lowell's discussion of the relation of opinion to facts throws interesting lights on this question.

legislative hearings by the experts on both sides. And the whole history of our courts gives multitudinous evidence in regard to the expert. Recall the testimony in negligence cases. In a suit brought a few months ago on account of an elevator accident, of two experts called in to judge the tensile strength of the cable, the expert on one side testified, after examination of the strands, that the condition of the cable was such as to make it reasonable to expect that the cable would not break; the other testified exactly the opposite. Again, a large molasses tank owned by the United States Industrial Alcohol Company exploded, doing much damage to life and property in the neighborhood. In the cases which resulted, testimony was taken from Harvard and Technology experts. The expert on one side testified that the fragments of steel plates of which the tank was composed showed that the force causing the explosion came from within; the expert on the other side, that it came from without, as, it might be, from a bomb. Of course the question of liability depended largely on this testimony. In the case of medical experts, the fact of two doctors of equal reputation giving directly opposed testimony makes many cases arising from accidents difficult to adjudicate. But we need not enlarge on the diverse testimony of experts in the courts, it is a matter of almost daily experience for every lawyer and judge.<sup>2</sup> Fact-finding bristles with difficulties. Let us look at some of the practical difficulties involved.<sup>3</sup>

Many seem to imagine the expert as completely denatured: one who has no emotions, no interests, no

2 See what Kohler, one of the greatest of continental jurists, has written on "the philosophy of testimony" in *The Philosophy of Law*.

3 Fact-finding as a generic term includes fact-gathering, fact-analysis, fact-interpretation, fact-handling, fact-presentation, etc.

memories and associations. Is there an island where such a race dwells?<sup>4</sup> But waiving for the moment that different experts report quite differently on a situation, that they may have *their* prejudices, interests, stereotypes, that they too often seem mortal and find what they expect to find, or what “the habits of their eyes” lead them to see, or what fits in with their philosophy or moral code; waiving for the moment too that we have all known Commissions where the experts chosen to collect the information required were very carefully picked beforehand according to their probable or known leanings--waiving all this, still some difficulties arise.

First, facts do not remain stationary. A situation changes faster than anyone can report on it. The developing possibilities of certain factors must be so keenly perceived that we get the report of a process not a picture, and when it is necessary to present to us a stage in the process, it should be presented in such a way that we see the hints it contains of successive stages. Dean Pound, in speaking of the writing of legal history in the last part of the nineteenth century, says: “The details of legal and political institutions were described . . . so faithfully as they stood in detail on a given day that they had ceased so to stand before the book was off the press.”<sup>5</sup>

Moreover, names remain the same when what they stand for has changed. It often takes a nimble mind to perceive this.

4 Mr. Lippmann's brilliant chapter on stereotypes would completely dispel such an illusion. See *Public Opinion* by Walter Lippmann for a penetrating analysis of public opinion founded on inadequate information, on tradition, on emotion and “stereotypes.”

5 *Interpretations of Legal History*, p. 70.

Then of great importance is the danger of the expert's labels. When we are told of the accurate pictures of the expert, we remember that there are people who take their cameras to séances and then show us their photographs as conclusive proof of spirit faces! But these are accurate pictures, for "the camera does not lie." The retina of your eye, too, may not lie, but if you see a man strike his friend on the face, it is better to restrain your indignation until you find out whether he was perhaps killing a mosquito. An unprejudiced investigator says: "I am showing you a picture of men fighting for an eight-hour day." But perhaps the men were struggling for something else, such as higher wages or self-direction. You may say that the expert need not label his pictures. He is hardly ever known not to do so; our very language, overlaid with the ideas and emotions of the race, prevents it.

We must remember also that expert or official can choose which fact, of two, he will present to us. To say nothing of partisan assortment of facts, experts emphasize the one which fits into present needs or interests. For instance, when there is a scarcity of white flour, we are told that brown is much more nourishing; when white flour is plentiful, we are told that as it is more easily assimilated we really get more nourishment out of it,

We could carry this thought much further, for it is, from one point of view, the thing most necessary to remember in analysis of fact-finding, namely, that the interpretation of facts depends on needs. The interpretation of existence has always and will always serve our needs. The perception of facts, our "attention," is determined by our needs or desires. The amoeba

feels the internal drive of hunger and wraps itself round something which stills the hunger and this henceforth becomes "food" for him. He has discriminated between food and the acid in the upper part of the pool. In our own life, while the process is infinitely more complex, it is still the same: discrimination always goes on *pari passu* with needs. The satisfaction of human needs is the fundamental law of human existence. Since Freud, the importance of the "wish" has been before everyone's eyes, but many advocates of fact-finding have not seen the significance of the Freudian "wish" in its relation to the interpretation of facts.

As this is of great importance, let me state it again a little differently. Facts become such for us when we attend to them. Our attending to them is bound up in the situation. The kind of objectivity which some of the fact-worshippers are endlessly seeking will be endlessly hidden from them. We want, we say, "impartial," "impersonal" investigation of a fact, but the significance of that fact, by all the yet-known laws of the universe, must be part of the wish which demanded the "disinterested" (!) investigation. The implications of a psychology based on the "wish" are many and far-reaching.

Moreover, we often see the confusing of part of the facts with all the facts. No matter how accurate information is, if it is partial, decisions based upon it will be disastrous. In a book on business education containing problems for the student, his answer to one problem is expected to depend on the "fact" explicitly stated in the text as a "fact," that you can sell more soap at six cents than at seven. A business man I know was much amused at this; it assumed, he said, that the other

firms died meanwhile. What happens as a matter of “fact” when you reduce your soap from seven to six cents is that your competitors reduce it to five and three-fourths, and the question arises as to what you are going to do then. One activity leads to another, and the “fact” is sometimes as elusive as the button in the children’s game. As ardent an advocate of fact-finding as anyone, I want merely to insist that we must know what we mean by “fact” in any given situation, that we must not base our action on too narrow an outlook on the field of facts. Perhaps this point could best be summed up by saying that to view facts in relation to one another is of the utmost importance, and that fact-finding and fact-presentation must take this very seriously into account.

One might go further and say that the value of every fact depends on its position in the whole world-process, is bound up in its multitudinous relations. One might go further still and say that a fact out of relation is not a fact. Yet not all experts can see the relation. What has made the great decisions of the American bench great is that their authors have seen the relation of the facts before them to the whole structure of our social life, including its present stage of development and its ideals. As Mr. Justice Holmes says, “[It is not] the acquisition of facts [which is important] but learning how to make facts live . . . leap into an organic order, live and bear fruit.”

I might connect with this point a crude use of facts which misrelates them to the situation, for things to be “facts” must be facts within the same field. That fire consumes is a fact, but it is not a fact for this book. Thus statistics and facts are not necessarily synony-

mous, but subtle estimates, comprehensive boundaries of vision will be required in order to decide what is a fact for the situation.

Moreover, those who wish conclusions to be drawn always from precise measurements, forget that many of our problems defy the possibility of precise measurement. For instance, what is the minimum a girl can live on “in health and decency?”—the phrase used in the Massachusetts Minimum Wage Law.

Another difficulty which should be taken into account in fact-finding is the limited opportunity of the mere observer; different facts are usually elicited by the participant-observer. That is, experiment rather than *mere* observation often illumines facts, or is the best way of getting at facts. As an illustration of the participant-observer I might cite Prof. William Z. Ripley who, as chairman of the National Adjustment Commission during the war, elicited facts, handled facts and created facts.

The following warning it would perhaps seem superfluous to give if I had not several times recognized its necessity while reading certain expert reports which seemed to be based on the notion that the scaffolding of a situation constitutes the facts. Facts must be understood as the whole situation with whatever sentiments, beliefs, ideals, enter into it. The facts of the trade union are not the external organization, its constitution and by-laws, nor yet the strike, in its external features; these are the mere scaffolding of the facts of trade unionism. That this has not always been fully appreciated by investigators is the cause of some of our misunderstanding in regard to trade unionism.

Another very real danger in fact-finding is that

while you or I may both be responding to fact, we may be responding to quite different *kinds* of fact. For instance, I sat on a Board last winter where employers, employees and public cooperated to fix a wage scale to be based on the cost of living, taking into consideration what that particular industry could stand. It soon developed, however, that to a number on the Board cost of living and the condition of the industry were by no means the main facts of the situation, but the relative strength at that moment of labor and capital. When those members brought in a demand for a minimum wage of \$21.40, these figures did not represent the cost of living in Boston in 1922, they represented an estimate of labor strength in Boston in 1922. But this also was certainly a fact. Let us not be too naïve about facts.

Facts have intimate connection with the whole question of power. Parallel to the history of the use of facts must be written the history of the use of power. Think of the cave-man standing over his fallen foe. The prostrate savage might say, if he were a passionate fact-finder, "Let us look at the facts, it's a big bear, we can divide it and there will be enough for both of us; moreover, if you will study the scientific tables for the nutritive qualities of bear-meat, you will find that you need less of this creature than you thought." But the cave-man would surely reply, "If you want to consider facts, the most important one for you to give your attention to is that I can kill you in another minute; that is the fact that gives me the whole of the bear." As this is the way our international conferences and many others are conducted at the present moment, it seems to me indisputable that the last word has not yet been said

about fact-finding, or at least about facts producing unity. The integrating of facts and power is possible, but it would mean a different code from that by which we are at present living. Nations are at present power-organizations; trade unions are power-organizations; manufacturers' associations are power-organizations. They must be made into something else before "facts" can have their full value for us. It is interesting to watch in any controversy, particularly when it extends over a rather long period, the change in "facts" with the shift in power. Observation of various conflicts with this in mind would, I believe, be fruitful.

Another point sometimes overlooked is that there is a time and place for fact-finding. And I mean more by this than merely that facts should be produced at strategic moments. The trouble with Lloyd George was often that he got a quantity of facts and went into conference with them. But France did the same. Then they pitted their facts over against each other. These facts did not agree. Of course they did not, as they were not the facts of the case as the case had developed in conference. From my experience on Minimum Wage Boards I see that there is possible a cooperative gathering of facts which is more useful to the resolution of conflict than for each side to get them separately and then try to integrate them, for when each side gets them separately there is a tendency for each to stick rigidly to its own particular facts. On one occasion when the employees were bringing in figures for a certain item, that of clothing, in the cost-of-living budget, and the employers another set, and the representatives of the public still another set, a sub-committee of three was appointed, one from each of these groups, to collect the

facts jointly. The figures brought in at the next meeting, thus cooperatively gathered, were accepted by the Board and the rest of the discussion based upon them.

Thus can facts be properly used in conference, not marshalled to bolster up partisanship. Moreover, since far more than honesty, disinterestedness, etc., is required in the gathering of facts and reporting of situations; since the greatest delicacy of perception, the ear to hear overtones, the sensitiveness to impressions as well as a certain imperviousness to impressions, are indispensable, our accurate information will probably always have to be gathered by a number of people. We must recognize also that the facts on two sides of a controversy are in part different, and will remain so except in those cases where the fact-finding can be a joint activity. It is true that even if we could have a cooperative gathering of facts we should still interpret them differently, but the initial difficulty would be avoided—we should at any rate be looking at the same facts. When the attention of each side is riveted on *its* facts, discussion becomes rather hopeless. When the middleman tells the farmer one thing and the Farm Bureau another, the farmer is puzzled even although both sets of information may be “facts.”

The use of statistics to suit one's purpose has been too frequently noticed to need any elaboration here, but an unusually interesting case has just come to my attention which has a bearing on this point of a cooperative gathering of facts. The research department of a tobacco cooperative association was asked for figures on the price of tobacco before the time of the formation of the cooperative. They began at 1866, taking five-year periods for their averages, and showed

that the average price was under 11 cents. Then an independent investigator made the same analysis, on the basis also of five-year periods, but began with 1868. The result was much higher. Of course it was in the interest of the cooperative to make the discrepancy before and since its organization as great as possible, yet this was not calculated manipulation to deceive, it was a tendency merely to make the best showing possible—the aim of both sides in every controversy. The result was two sets of figures confronting each other. This could have been avoided by making the investigation a joint affair; then it could have been decided what year it was fair to begin with, not fair to both “sides,” but a fair estimate of tobacco prices irrespective of “sides.”

One of the principal difficulties in fact-finding seems too obvious to mention: the deliberate withholding of facts. The chief weapon of the speculators is to keep facts from the public. If they can induce the public to think there is a shortage, so much the better for them. Much might be written on this question, for we have abundant material both for and against the advisability of opening business records to the public. The withholding of facts must be connected with the question of the seeking for power. Consider the attitude of the cooperatives on this point. They are trying to stand in two places at once in regard to open business: open for members, shut for the public—a difficult position to maintain. One of the leading principles emphasized by many different speakers at the National Milk Producers’ Federation at Springfield, was the need for every cooperative organization to keep its members fully informed

as to all its policies and all the details of its business. It was urged that while it is characteristic of big corporations and of business in general to be secretive for fear of putting information into the hands of competitors, the cooperatives ought to adopt a different policy. But one of the southern cooperative associations refuses to publish individual warehouse receipts for fear of their effect on prices, or to give information as to their solvency, or to publish prices until the end of the year (the payments are made in installments); they have not yet told the overhead cost, the number of members, the number of contract violations or the amount of available credit. Any of this information, they consider, will give power into the hands of their opponents.

But above every consideration in the gathering of facts we must notice that the findings of experts can often be divided into the facts which are indisputable and those which can be looked at differently by different people. To illustrate. Experts from various agricultural colleges meeting in conference decide on the best balanced ration for milch cows. In that formula are two different *kinds* of information: (1) the analysis of the different grains showing the percentage in each of protein, carbohydrate, fat and fibre; (2) what proportion of each grain in combination furnishes the best mixture for milch cows. It is of the utmost importance to make this distinction. The farmer can have no opinion about the first: if two farmers should disagree in regard to the percentage of protein in oats, discussion would be futile; the only thing they could do would be to consult a chemical expert. But a farmer can watch the effect of the for-

mula on his cattle; he can vary the mixture and keep a record of results; a number of farmers doing this can compare results and report to the agricultural colleges. Thus each man's share in the matter would not be merely getting the best feed for his own cattle, but also contributing to the formula. Thus the formula may change with the experience (happily, or I should say significantly a word from the same root as expert) of all. This is all that democracy means, that the experience of all is necessary. There is no innate urge or abstract right which assures us the knowledge of how to feed our cattle, we find merely that the plus-idea is the best thing man has yet fallen on. This is as true in politics as anywhere else. Democracy is not "idealism" but plain common sense.

In this matter of cattle-feeding there has been a change in the last two or three decades parallel with our change in political ideas. Some years ago the farmer's attitude was, "I guess I know how to feed my own cattle." This reminds us of the every-man-can-govern species of democracy. The present aim of many agricultural experts—to get the farmer to follow their formulæ blindly—is in line with all the overemphasis today on the expert. But the better way is to find out how to combine the experience of the agricultural colleges and that of the farmers. The intelligent farmer does not take the formula of the colleges as revealed truth, but as a basis from which to begin his own observations. He knows that the expert is not one who has access to the secrets of the All-wise, but one who has a particular kind of experience which must be added to his own particular kind of experience, that both have their parts to play.

To carry this illustration a little further, let us note three parts in the process: the first entirely a matter for the expert (percentage of protein, etc.); the second a matter for expert plus farmer (the best mixture); the third entirely a matter for the farmer, that is, of two formulæ with equal proportions of protein, etc., but different ingredients, it is for him to decide which to use.

I have allowed myself this long illustration because of its significant suggestion for politics and industry. In politics we do not keep these different kinds of information apart; there we are always trying to change the proportion of protein and carbohydrate. To reduce this practice should be our aim. And our aim in the so-called democratic organization of industry should be, not to give the workmen a vote on things they know nothing about, but so to organize the plant that the workmen's experience can be added to that of the expert; we must see just where their experience will be a plus matter, and we must plan to have the workmen learn more and more of the industry as a whole. To think that a man can come from his particular machine and vote intelligently on the running of the business is exactly the mistake we have made in politics. The problem of most managers of industry is how to use their "objective measurements" after they get them; how to ensure that they will keep as much of their objectivity as possible, and how to make them operative through, not in spite of, the will of the workmen.

Every increase of technical knowledge and mechanical invention, as President Lowell has so well pointed out, increases our dependence on the expert.

The indispensability of the expert is accepted; what we need is a clearer understanding of his relation to ourselves.

Of all the many difficulties which arise in trying to connect the findings of the expert with the will of the people, perhaps the greatest is caused by the methods the expert is often willing to use in the presentation of facts. Secure in the belief that he is "right," he does not hesitate to stampede the general public into acceptance of his opinions, for in spite of our wish to think of the expert as an unprejudiced observer who has no opinion, we see little caffeine-less information presented to the public. And I ought to add in justice to the expert, that the public on its side has shown little inclination for nourishment without stimulant. But the fact remains, whether it is due more to the zeal of the expert or to the demand of the people, that there is a pernicious tendency to make the opinions of the expert prevail by crowd methods, to rush the people instead of educating them.<sup>6</sup> Indeed there is often more of this in the select circle of experts than elsewhere, for those of us who are not experts are occasionally a little humble about our opinions and somewhat reluctant about forcing them on others. Not so with the expert. I have seen the method used subtly, insinuatingly, most cleverly, by one of the foremost economists of America, one who has done the best kind of research work, speaking before a meeting of the Amalgamated Clothing Workers at one of their national conventions. And after the war when the propaganda for the League of Nations

6 I am not forgetting the educational methods of the Red Cross and other societies, as well as of settlements and social workers in general,

began, there was in one city a committee composed largely of trained thinkers, one of them at least an expert in international matters, who had as part of their programme what they called a "whirlwind campaign" of the School Centres in various parts of the city where citizens' meetings were being held. "All we want," they said when asking for permission, "is for the people to stand up and be counted." But as one of the friends of the Centres remarked, "The Centres were not opened for men to stand up and be counted but to sit down and think." When the expert in international affairs is trying to "whirlwind" an audience into voting for the League of Nations, he is using exactly the same method as the demagogue.

There is much more in this point than appears on the surface: it is by no means enough to persuade the expert to give up crowd methods; he has to understand what the difference is between the crowd method and the non-crowd method. The essential difference is that the former creates wholes and the latter breaks up wholes. Let me explain. The object of the crowd-speaker is to get unanimity: the way he does this is to take all the different aspects of a situation, about which men might and do differ, and either combine them into something so vague that all can easily agree, or else get them under the roof of a single emotion. One emotion will cover a multitude of ideas. This point is delightfully made by Mr. Lippmann. The non-crowd method, as I shall show in Chapter IX, is just the opposite: it proceeds by analysis, differentiation, discrimination. And this matter of discrimination is concerned as much with the expert's investigation as with the process by which he communi-

cates his results. Generalization is often implicit interpretation. For any scientific accuracy we must use interpretative terms guardedly. Words should not be used which imply a judgment, which award praise or blame. We must seek a language without emotional content. For fact-finding we must invent a fact-language. To keep strictly to the observation of behavior, and to force our language to record that behavior, is what is necessary. Someone tells us that this workman "stubbornly" continued to do so and so; this is an interpretative term, not the language of the scientific accuracy. If situations could be reported with scientific accuracy, I believe it would have a very marked refluent effect on the expert's observation; it could not fail to make him observe more keenly, it could not fail to sharpen his perceptions, if he deliberately separated facts from interpretation and made his language correspond exactly to the facts. Few experts are alive to this.

And we on our part, we like the crowd-words they give us; they have taken on so many consecrated ideas and approved-of emotions that we feel reinforced, unconsciously, by what they have gathered to them. Also the acceptance of crowd-words is enormously encouraged by our inertia; they save us the trouble of analysis.

I have been watching the presentation of facts in the farmer-middleman controversy in the South. In reading the literature of the cooperative movement in the South during the last two years, as found in newspapers, trade journals, propagandist pamphlets, etc., one notices on the one hand the "facts" presented to the farmers by the promoters of the tobacco and cotton

cooperative associations, and on the other hand the different "facts" given by those opposed to these associations, the warehouse men, speculators and bankers, who wish to maintain the old system. The official organ of one of these marketing cooperative associations boldly contradicts the "facts" of the middlemen. It sometimes does this with an emotional appeal, sometimes with a logical appeal, but there is no effort to convince the readers that the facts which are being used to controvert those of the other side have been gathered in such a way that one could be sure they were facts. As many academic controversies consist, alas, in statement and counterstatement of opinion, so here we have statement and counter-statement of fact. A method of presenting facts which should first establish the validity of their claim to be facts would both help in the resolution of the conflict and be educational.

This chapter must not be considered as showing any scepticism in regard to the value of facts. I know that much of our muddle today comes from a willingness to base our decisions and our actions on inaccurate information or mere assumptions. We see this daily. Any example that might be given seems too commonplace to mention. I recently served on a subcommittee to look into the matter of inexpensive boarding-houses in Boston, that way of living which most people consider the menace of the working girl in the large city. We found to our surprise that the working girls of Boston lived chiefly with their families or the family of a friend. There were exceptions, but these were taken care of by Brooks House, Franklin Square House and homes of that description, well

conducted and carefully supervised houses. The welfare worker at Jordan & Marsh's department store told me that of their two thousand women employees practically none boarded; they commuted from about sixty-three towns. She too had been much surprised at this, as she had supposed one of her chief tasks would be the boarding-house problem. My sub-committee reported these facts to the main committee, but for weeks afterwards that committee in its discussions assumed, as they had done all their lives, that working girls in a city lived chiefly in boardinghouses and ran all the dangers involved. We quietly hit that assumption every time it reared its head, but never killed it entirely. The mere fact, however, of a sub-committee being appointed to investigate this subject was a step towards "accurate information."

Another thing is interesting: we are advancing the boundary-line of ascertainable facts; while insisting that we shall not discuss as matters of opinion what are matters of fact, we are finding that more and more subjects can be taken from the field of mere opinion. In a meeting of the manufacturing committee in a large industrial plant the members were considering the advertising for the Christmas trade, and the discussion was over the question whether a three-line advertisement for six weeks attracted more attention than a longer advertisement for a shorter period. As the advertising was to cover the whole country, the cost was of some importance. The discussion went on, sides were taken, until the President of the company walked in, heard what was going on and said, "Why discuss what we ought to be able to find out? I will ask the department of psychology at Columbia to take

up this question. By getting their students to read magazine advertisements over an extended period and make careful notes of what attracts them, we may be able to get some information on the subject. Meanwhile let us not go through the farce of taking a vote on something we know nothing about; let us go on as we have done in previous years until we get something on which to base our opinions.”

I give my full adherence to the doctrine of “accurate information.” We see every day how necessary are warnings to us on this point. For instance, “applied psychology,” of which we hear so much just now, means to many business men the consideration of the influence of personalities on each other rather than the responsibility of individuals to the situation—that is, to the facts. And when the politician relies on what he too calls “psychology,” he means the handling of men instead of the facing of a situation—that is, the facts. And it is only too apparent that the weakness of diplomacy is that it puts a disproportionate emphasis on the understanding of the “psychology” of one's fellow diplomats as against an understanding of all the facts involved. The “psychology” of the individuals concerned is of course also a fact, and an important fact, of any situation; I am criticizing here merely the too exclusive use of this particular kind of fact.

We have been speaking of experts and people, and have neglected the middleman in government, the administrative official, and there are several things here to bear in mind.

First, administrative purpose usually outruns the

facts. Indeed the administrative official's ardor for facts usually begins when he wants to change the facts!

Then the overemphasis of investigation draws a line between the gathering of material and the interpreting of material: the expert is to gather and the official to interpret. No such sharpness of division is possible; the gathering is always in itself an interpreting. Interpreting is part of the vision, not something done with the vision. Where indeed can we look for the separation of fact and opinion? The Federated Press began its career by telling us that the Associated Press was partisan, but that it (the Federated Press) was going to be nonpartisan; that the Associated Press gave us opinions, but that it was going to give us facts. We can see how far they have been able to keep that promise.

Moreover, facts are not poured in on the administrative official in helter-skelter fashion, they undergo a certain process first, and fact-analysis is to some extent fact-interpretation. Condensation is implicit interpretation. Yet the official necessarily calls upon the expert to provide him with the facts of the case in condensed form.

Those who give us the trinity of accurate information, administrative policy and assent of people as the political process sometimes forget that their glorification of facts would tend to reduce the administrative officials to a shadow, would tend to make them mere mechanical appendages of the organized intelligence departments. And thus policy becomes as foreordained as consent. There must be a place for experts *and* administrative officials *and* people.

And I wish those who advocate a more extensive system of fact-gathering would tell us more of the subsequent fact-handling. Since the war, Washington as a store-house of steadily accumulating research-reports has become a joke. Consider the vast sums spent by the Shipping Board alone and the material gathered; if the administrative officials are making use of this, they have kept it a secret from the rest of us.

I have left to the last what seems to me the most serious flaw in any exposition which makes a chasm between the expert and the people to be bridged only by the frail plank of consent. But I wish here merely to state, what cannot be elaborated until a later chapter, that the "will of the people" is already in the situation which the expert investigates; that the investigation of the expert often changes the situation (an investigation of the standard of living often raises the standard of living); and that the people help to create and to develop, by their response, the situation to which they are responding. The expert's opinion, the administrative official's opinion, the people's opinion, all affect the situation, so that before the expert has finished reporting and the administrative official deciding and the people "willing," the situation has changed. In short, my argument against acquiescence as the people's part in the political process depends first on the fact, in my opinion basic and all-important, that different kinds of accurate information are required, that of the expert and that of the people; secondly on the changing character of the fact-situation; third on the activities of the people as integral with the changing situation.

The expert must find his place within the social process; he can never be made a substitute for it. Technical experience must be made a part of all the available experience. When we see expert and administrative official, legislator and judge, *and* the people, all integral parts of the social process, all learning how to make facts, how to view facts, how to develop criteria by which to judge facts, then only have we have a vision of a genuine democracy. We have not to choose between becoming an expert on every subject ourselves and swallowing whole the reports of experts. The training of the citizen must include both how to form opinion on expert testimony and how to watch one's own experience and draw conclusions from it.

I should like to say, as an indirect summing up of this chapter, that I wish we could understand the word expert as expressing an attitude of mind which we can all acquire, rather than the collecting of information by a special caste. While appreciating fully the necessity of more scientific observation, what we chiefly need I believe is not so much to increase the expertness of the expert in the hope that thereby we shall automatically increase the consensus of the consent, but for all of us to acquire the scientific attitude of mind, to base our life on actual experience, of my own plus that of others, rather than on preconceived notions. Much of our present clamor for the expert is, I fear, a "defence reaction," a confession of our own weakness. Many of us are calling for experts because, acutely conscious of the mess we are in, we want someone to pull us out. What we really wish for is a "beneficent" despot, but we are ashamed to call him that and so we say scientific investigator, so-

cial engineer, etc. Many of us are like the little girl who goes to her mother with her tangled knitting: she goes, often, not to learn to knit, but to be got out of a scrape. What we have to do is to learn how to use the findings of the expert: it is not by a blind acceptance; neither by balancing them against our own "innate" ideas; it is by learning how to unite experience with experience.

The social process is not, first, scientific investigation, then some method of persuading the people to abandon their own experience and thought, and lastly an acclaiming populace. The social process is a process of cooperating experience. But for this every one of us must first acquire the scientific attitude of mind. This will not make us professional experts; it will enable us to work with professional experts and to find our place in a society which needs the experience of all, to build up a society which shall embody the experience of all.