VII. TRIAL AND ERROR IN ECONOMIC ORGANIZATION

1. *Trying Things Out*

A SOCIETY, like the individuals of which it is composed, learns first by trial and error. The earliest lessons that the human race received were obtained by this method, and all new information is thus secured. The numerous economic difficulties that lie ahead of the present generation must be met and solved by the method of trial and error, or, as it is sometimes called in political jargon, "muddling through."

During historic times men have spent vast stores of energy in trying things out. It has frequently been observed that man is a social animal. It might be said with equal truth that he is an experimenting animal. He is curious, he is venturesome, he enjoys change, he relishes novelty, he is eager to better his condition. Animals live on from generation to generation, building nests after the same pattern and migrating over the same territories. But man investigates, ponders, experiments, improves.

This principle of experiment—the appeal to trial and error—holds true of social as well as of individual life. The hunter tries out a new snare or weapon, the machinist constructs a new tool, the chemist works out a new formula, the architect creates a new variety of arch or buttress, the educator writes a new kind of text-book, the sanitary engineer devises new methods for securing and safeguarding a water supply, the statesman plans a new system of roads that will open up the rural districts, the social scientist draws the design for a new type of economic organization. From the most personal to the most social, from the most local to the

most general or universal, human activities are directed over new fields and into new channels on the principle of experiment, by the method of trial and error.

The scientist or inventor works in his laboratory or in his shop, devoting his energies to investigation and research which are nothing more than the application of the principle of trial and error to the particular problems with which his science is confronted. Once the experimenter has discovered a way to compel mechanical power to toil for man, or to destroy the typhoid germ, or to talk across a continent without wires, the next task is to find a better way or an easier way. Far from decreasing the necessity for experiment, each new discovery in the realm of natural science opens the door to additional possibilities. To-day every important college, most cities, many industries, and public institutions maintain experimental laboratories in the various fields of applied knowledge, and employ highly trained experts whose sole duty it is to try things out.

Inventors frequently hit upon new ideas or upon novel devices by chance, but for every such chance discovery, there are scores and probably hundreds of ideas and devices that have been carefully thought out, worked over, rejected, revised, modified, until they produced the desired results. There is a margin of chance in all experiment, but surrounding it there is a vast field of careful thinking and planning and of endless purposeful endeavor.

These observations are commonplaces in the laboratory and in the department of research. They have filtered through to thinking people who begin to understand the part that experiment plays in all forms of scientific progress. There is a general agreement that if there is to be an increase in the knowledge that men possess regarding the mechanical forces, the only sure way of gaining this knowledge is to weigh, measure, describe and classify. This applies to solids, liquids, gases, rocks, plants, animals, and even to the structure

and function of the human body. But when it comes to social institutions, even the wisest hesitate and question. Is it possible that social knowledge can be gained only in this way?

There is no other way! Like the individuals of which it is composed, society must investigate, experiment, and learn throught trial and error. Indeed, that is the tacitly accepted method by which social knowledge is accumulated. History is a record of social experiments—not so consciously directed nor so carefully planned as the experiments that are taking place in the chemical laboratory, but experiments none the less. What other explanation can account for the many forms of family relationship, the many varieties of religious organizations, the numerous types of political institutions, the multitude of educational institutions. "Educational experiments" are the commonplaces of the pedagog. Slavery was one of society's economic experiments, feudalism was another, capitalism is a third. Through successive generations these institutions have been built up, reformed, discarded and replaced. The history of social institutions is a history of social experiment—of community progress through trial and error.

Obstacles are thrown in the way of the social experimenter. Vested interests seek to convince the credulous and the ignorant that whatever is, is right. The jobs of office holders, the possessions of property owners, the security of ruling classes, depend upon their ability to sit on the lid of social experiment. "Do not touch, do not think, do not question!" is the warning of masters to their social vassals. Those who eat of the apple of experiment acquire the knowledge of good and evil, and with this knowledge comes the desire to reject and destroy the evil while they hold fast and augment the good.

Those who have learned, and who have dared to protest, have been ridiculed, persecuted, outlawed. Sometimes their bones have bleached on the gibbet or rotted in dungeons.

Still, the jail, the gallows and the lynching-bee have not kept experimenters quiet in the past, and they will probably not do so in the future.

During recent times—particularly in the last fifty years—the changes in economic and social life have been so rapid that the "always was and always will be" protest is having a harder and harder time to make itself heard above the clatter of the social house-wreckers, and the rap and beat of the social construction engineers.

2. *The Capitalist Experiment*

The present economic society is an experiment—less than a century old in most parts of the world. It has evolved rapidly through a series of forms, corresponding with the rapid advances in the methods by which men wrested a living from nature.

The masses of the people in industrial countries have abandoned their farms, their villages and their rural life, have moved into the cities, and have gone to work in the mines, factories, mills, stores and offices, very much as the mechanics and farmers dropped their accustomed tools and rushed to the gold fields of California and Australia. Within two or three generations the whole basis of life has been shifted and a new order has been established. This change has been made for the purpose of securing a better living.

The people in the industrial countries have accepted capitalism as an essentially desirable means of gaining a livelihood. The new order has given them an opportunity for mass living that has been reserved in the past for a small percentage of the people. It has provided an immense number of things, for the most part inconsequential and tawdry, but things nevertheless which would appeal to the possessive instincts of those who had never enjoyed many possessions.

The new order has made each family in an industrial district doubly dependent—dependent on a job which it can

in no wise control, and dependent on the economic mechanism for the supply of goods and services without which mass city life is quite impossible. The rural family had a supplementary source of living in its chickens, pigs, cows, goats, bees and garden. Fuel was cheap and nature provided berries, nuts and game. Life was rough, but the means of maintaining it were relatively abundant. City life has cut away almost all of these forms of supplementary income, at the same time that it has imposed upon the family the need to pay for practically all goods and services. The city breadwinner must get and hold a job, if his family is to live.

Mass life in cities, mass work in factories, job-dependence —all of these experiments are being made in a field that up to the present time has been virtually untouched by the human race. Mankind has gone into these experiments hopefully, trustingly, blindly, without any guarantee of their workability.

A casual examination of the premises on which the capitalist experiment is built will show the extremely precarious position in which the people who are dependent upon it now find themselves.

The capitalist experiment is built on the assumption that competition rather than co-operation is the effective means of promoting social well-being. Acting under this theory, each man is to forage for himself. This individual activity was relied upon to promote initiative and to stimulate ambition. In practice, capitalist society has been compelled to abandon competition in many of its aspects. Monopoly is the opposite of competition, yet the modern capitalist world is full of monopoly because monopoly pays better than competition—it is a more workable economic scheme.

Following out the assumption that competition is the life of economic society, one arrives at a necessary corollary to the general theory. The purpose of competition is to injure, wipe out and dispose of the competitor. Therefore the

misfortune of our competitors is our good fortune. This would lead, as applied to the actual conditions of life, to some such formula as:

1. Bankrupt your competitor and you will profit.
2. Impoverish your neighbor and you will benefit.
3. Injure your fellow-man and you will gain.

Stated thus baldly and harshly, these three propositions sound incredibly silly, particularly in view of the example the world has just had of large scale competition—the World War—yet they are a fair picture of the line of thought and conduct accepted as rational by modern economic society. The normal processes of competition are directed to the destruction of competitors. War is a frankly avowed means of smashing rivals. Nationalism is built on the theory that "our" nation is superior to all other nations, and that, in the long run, it is capable of defeating (injuring) them.

The practice of such ideas render an effective organization of society virtually impossible, and it renders social catastrophe almost inevitable. Bankruptcy breeds bankruptcy. Impoverishment is a contagious economic plague. Injury leads to bitterness, hatred and further injury. These logical fruits of competition once admitted into the economic body, threaten its very life.

The tenets upon which capitalism is founded have already been abandoned in part by their sponsors as unworkable. But at best they represent a standard of social morality that is essentially destructive of social well-being.

The human race has no guarantee of the success of any experiment, and recent experiences with the war, and with the present post-war plight of Europe suggest that the capitalist experiment will fail disastrously unless some extraordinarily successful efforts are made to put things to rights.

Society experiments, trying first one means of advancement and then another. A certain number of these new ventures, which prove to be of social advantage, are adopted

and incorporated into the social structure. The vast majority are rejected as inadequate to meet the social need. Capitalism is apparently in this latter class.

3. *The Cost of Experience*

Experiment is the necessary road to new experience, and the cost of experiment is written in the immense wastes that it involves. Experience gained through experiment is sometimes very costly. It is never cheap.

Frequently these costs, measured in terms of misery, are so great as to overbalance the advantages gained through the experiment. If, therefore, there were another way to gain knowledge except through the processes of experiment, it would result in an immense saving for mankind.

4. *Education*

There is a way, other than experiment, in which knowledge may be gained. Instead of relying on experiment (direct experience) for the spreading of knowledge, it is possible to utilize the indirect channel called education. If this method is followed, and the results of the race experiment and experience are made available to the young of each generation, the need for experiment will be limited to a narrow field, since most of the necessary knowledge will be communicated through education.

The individual need not repeat all of the experiments of his ancestors with animal breeding, harvesting, weaving, smelting, writing, house-building, etc. One by one these arts and crafts were built up—each generation adding its quota to the total of knowledge. These results of past experience, which were first passed from hand to hand, then from mouth to mouth, and finally written down, and which have been handed from generation to generation through the processes of education, are among the most important of all social assets.

The farther the race goes in its accumulation of knowledge, the more important does education become, since there is more to transmit from one generation to the next. Among primitive people the educational process is completed at a very early age. With the emergence of arts and crafts, the apprenticeship to life becomes longer. At the present time, the individual may continue his education as long as he is capable of acquiring new ideas. Under the present society, therefore, the educational processes are the chief reliance for the transmission of new ideas.

5. *Facing the Future*

The accumulated knowledge of the ages, handed on from one generation to the next, enables the scientist to suggest the direction in which new experiments should be made as well as to predict their probable outcome. His work ceases to be haphazard. It has a well-understood policy and common problems.

Particularly in the realm of natural science, has there been a vast accumulation of verified knowledge, from which there have been deduced principles and laws which enable the electrician or the astronomer to predict the action of the electric current or the course of the stars with almost unerring accuracy. To be sure, these predictions do sometimes go wrong, but for the most part they are founded on verified and tested hypotheses.

The past thus advises the present, which, from the vantage ground so gained, prepares its contribution to the future. If each generation were compelled to learn how to build fires, to employ language, to shape pottery, to weave, to print and to harness electricity all over again, it would seldom get farther than the rudiments of what is now called civilization.

The new knowledge that is gained in each generation is obtained through experiment, but many costly errors are avoided in these experiments through the wisdom that is based on the accumulated knowledge of the past.

Thus each generation of scientists accepts from its predecessors a trust for the future. Not only must it preserve the body of knowledge, but it must verify, amplify and enrich it. This is as true of the social scientist as it is of the natural scientist. The difference between them is that the natural scientist has worked out his technique and established his field, while the social scientist has reached only the threshold.

6. *Accumulating Social Knowledge*

Social knowledge is yet in its infancy. It is only within the century that Comte, Buckle, Marx, Spencer and other historians and sociologists have made an attempt to place the accumulations of social knowledge on a par with the accumulations of mathematical or chemical knowledge.

Until some effort was made to study society in a scientific spirit, there was no reason for supposing that men might be able to cope with social ills or to prevent social disaster. Even to-day, while there is no longer any question as to the possibility of classifying social facts, and while sociology is regarded as a science of great promise, the feeling lingers that social events are fore-ordained. Many people feel to-day about social disaster as the men of the middle ages felt about the plague—that it is outside the field of man's preventive power. Another fatalistic school of thought holds that men learn their social lessons only through failure and disaster. According to the first line of thought it is useless to interfere with social processes because they are in the hands of the gods; according to the second, men will not interfere until they have been whipped into rebellion by the adverse conditions surrounding them.

Men in the past have modified the course of human events in the most profound way. The first smelter of iron and the first constructor of a wheel began a series of events that is still molding social life. It is quite possible to say that these events were fore-ordained, but it is at least equally possible

to reply that the same process of fore-ordination is still busy, and that the changes that it will make through the present generation will be at least as important as those which it has made in the preceding ages.

Those who believe that the race learns only through hardships and suffering should bear in mind: first, that most of the knowledge communicated to the individuals of each generation is communicated indirectly through some process of education; second, that society is composed of those individuals; third, that modern communities have built a vast machine whose sole purpose it is to influence opinion by teaching (indirectly) in the school, in the church, through the printed page and the film. In Japan this machine is employed to teach the people the sanctity of the emperor; in Britain it is used to convince the masses of the sanctity of business–as–usual; in France it is used to proclaim the sanctity of property; in Russia it is used to inculcate the sanctity of the revolution. If people learned only through first hand experience, these propaganda machines would be failures. In practice, they are highly successful.

Social disaster is not the only path to social knowledge. It is not necessary for a generation to suffer from typhus or to be ruined by war in order to be convinced that these dread diseases are menaces. The desire to prevent famine is felt by millions who have never come any nearer to it than the stories in the papers. Society learns, indirectly, through education—slowly of course, but none the less surely.

The average man is convinced of the desirability of trying to avoid disease, hunger and the other ills that effect him personally and immediately. He is not yet convinced of the efficacy of a similar attitude toward war, revolution and other disasters which inevitably destroy some portion of society, and which in the end will prove as preventable as disease and famine. Social disaster seems more inevitable because it strikes more people at one time, while individual disaster has

been more carefully studied, is better understood and is more localized.

Grave dangers menace present-day society. Economic breakdown, war and social dissolution with their terrible scourges—pestilence and famine—have already overtaken millions. It is plain that some new course of social action must be planned; that some social experiment must be inaugurated that will ward off the impending disasters.

Social experiments should be made, as chemical and electrical experiments are made, after all of the available facts have been carefully considered and digested. The results of such wisely planned experiments in the social field may be just as dramatic as the results of similarly planned experiments in the field of natural science.

Never in the history of social change has there been an intelligent direction of social processes. Many men in many ages have had ideals and aspirations, coupled, in some cases, with a limited knowledge of social practice, but social changes have come upon mankind for the most part, as a meteor comes upon the earth's atmosphere—unexpected and unheralded, startling those who have seen it by the suddenness of its appearance. Nor has there been any attempt on the part of the ruling powers to instill a different point of view with regard to these matters. On the contrary, there has been a determined effort to convince men that social changes were beyond their ken. The air of mystery has been blown away from natural phenomena, but it is encouraged and permitted to surround social changes. While it endures, an intelligent direction of social life is, of course, quite out of the question.

This attitude is being broken down, however. The past hundred years of experiment and experience with a competitive order have convinced multitudes that such an order is unworkable. During the same period, the development of economic organization on ever broader lines has emphasized the need of common purposes and common activities.

Recent social experience teaches plainly that an injury to one is an injury to all; that a benefit to one is a benefit to all; that men rise in the scale of well-being with their fellows and not from them, and that a co-operative social life is the only one that will prove livable and workable. These four propositions include the best thinking of the modern world on the fundamentals of a social structure that will prove livable and workable.

The acceptance of any such standards of social life involves a right-about-face in the basic social philosophy of the world.

1. *The doctrine of laissez-faire must be accepted for what it is—an exploded theory that has promoted, not social well-being, but the interests of favored classes.*
2. *Catastrophe must be recognized as the most costly avenue to progress.*
3. *Social science must be made at least as effective, in guiding the life of the world as is physical science.*

Social science alone will not protect men from the dangers that surround them. Every social group is dependent for its effectiveness upon the kind of individuals of which it is composed, and their ideas and ideals limit the ideas and ideals of the group. At the same time, a carefully thought out course of social action, like a carefully thought out course of individual action presents a standard toward which society may work.

A plan for social organization is like the blue-print with which the mechanic works. Science comprises his rules and methods of procedure, but the driving power comes, not from the blue-print and not from the formulas, but from the man himself. This holds equally true of society.

7. *Conscious Social Improvement*

Conscious social improvement is the improvement made by society in pursuance of plans that are prepared and car-

ried out with the knowledge and approval of the mass of the community. It is the product of community intelligence directed to public affairs.

The individual can make conscious improvements in his condition only through observation, analysis, conclusion and experiment. The community is under the same limitations. Its progress will be intelligent only when it works rationally and purposefully upon the problems with which it is confronted.

The individual faced with a perplexing situation in his business or in his private life, sits down and goes over the matter, examining it point by point, until he thinks that he has a solution for his difficulties. Society, under similar circumstances, must follow a like course of action. People must ponder and discuss the issues before them until there is some consensus of opinion as to what course should be followed. It is only under such conditions of intelligently directed social action that conscious social improvement is made.

Conscious social improvement is therefore practicable when the available knowledge about social problems has been socialized or popularized to a degree that renders the community intelligent concerning its own affairs. The task of popularizing any form of knowledge falls primarily to the educator, the journalist and the other moulders of public opinion.

8. *The Barriers to Progress*

There are two important barriers to intelligent social progress. One is the lack of organized knowledge concerning social matters. The other is the restriction of this knowledge to a tiny fraction of the population.

Social science, still in its infancy, has ahead of it decades of advancement before it attains a position corresponding with that of the physical sciences. Even at that its progress must be slower, first because of the intricate nature of social

phenomena, and second because of the herculean efforts that the vested interests make to destroy any form of social experiment that threatens their privileges.

Equally serious, as a limitation on the efficacy of social knowledge, is its restriction to a very small fraction of the community. Progress in the physical sciences is initiated in the laboratory, without any considerable participation by outsiders, but progress in social science depends on the attitude if not on the consent of the community, and therefore the socialization of social knowledge becomes one of the indispensable elements in social progress.

The handling of social problems has been confined, in the past, to a very small minority of each community. An aristocracy or plutocracy has taken charge of domestic and foreign affairs, and has made the decisions on which community well-being has depended. With the advent of "popular government" certain of these decisions have been turned over to the masses of the people or have been seized by them. The essential economic decisions, however, are still made by the owners of private wealth. If there is to be an organization of economic society that will function successfully and autonomously, the knowledge on which the decisions affecting economic policy are made must be public property. Until that step is taken the economic life of society will be directed by the chance desires of those who own the machinery of production.

Social students will accumulate knowledge and reach deductions, but that is not enough. The task is not completed until the results of their researches are common property.

Recent inventions and discoveries make the distribution of knowledge comparatively easy. Cheap paper, rapid printing, the newspaper, the magazine, the book, have all facilitated the scattering of information to those who could read, and in the western world this is more than nine-tenths of the adult population. For those who cannot read, the camera is an

educational power. The machinery for public education—the schools, the press, the lecture-platform, has grown within a century to a point that renders possible the speedy distribution of knowledge to the most remote parts of the world. One of the greatest single steps in the reconstruction of the economic life of the world is the use of this machinery to distribute such information as is essential to a clear understanding of the economic problem and the normal course of its development.

9. *Next Steps*

Accept the foregoing analysis, and what lies immediately ahead of society?

1. The socialization and persistent distribution of extant knowledge.
2. A decision with regard to the next great social experiment.
3. The selection of the group best able to carry through this adventure.
4. The preparation of this group for its task.
5. The placing of the task upon their shoulders, and the backing of them with every possible assistance.

The working out of the detail of this program is far afield from the purpose of the present study, which must confine itself to the problems of world economics. Let it suffice to indicate here that in pursuance of the program outlined above there must be inaugurated a widespread propaganda the object of which will be to get the facts and their implications to the people: the facts regarding the disintegration of the present order; regarding the possibilities of a new society; regarding the next steps that are necessary in its establishment.

This propaganda is being carried on by those branches of the labor movement that are concerned with the working out of a new order of society. Since it is apparent that the

organized producers will be the dominant element in the new society, they are its logical architects and builders. It is to this end that the energies of labor education must be directed.

When the producers are ready for their stupendous task, and when the time is ripe, they will assume the responsibility for erecting the superstructure of the new society. They will make costly blunders, some of which may be anticipated. They will be compelled to face difficult questions of tactics. In the course of their activities they will make day-to-day decisions that will play a vital part in the ultimate outcome of their experiments.

10. *The Success Qualities*

For the rest, the movement for a producers' society needs an emphasis on those qualities that will bring triumph out of defeat, and that can convert the most menacing situations into assets:

1. A willingness to learn better ways of doing things, and to abandon outgrown ideas and ideals for new ones.
2. A faith that will stand up under failure.
3. A vision that sees beyond a lowering horizon.
4. The courage to keep looking and trying, even in the face of difficulties that seem insuperable.

All human achievement is conditioned on these qualities, and their development is a pre-requisite to successful experiment.