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T H E  
Economic  
Organization

WITH AN ARTICLE  
Notes on Cost and Utility

*by* Frank H. Knight

UNIVERSITY OF CHICAGO

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THE ECONOMIC ORGANIZATION

# Social Economic Organization

## SOCIAL ECONOMIC ORGANIZATION AND ITS FIVE PRIMARY FUNCTIONS

It is somewhat unusual to begin the treatment of a subject with a warning against attaching too much importance to it; but in the case of economics, such an injunction is quite as much needed as explanation and emphasis of the importance it really has. It is characteristic of the age in which we live to think too much in terms of economics, to see things too predominantly in their economic aspect; and this is especially true of the American people. There is no more important prerequisite to clear thinking in regard to economics itself than is recognition of its limited place among human interests at large.

COMMON DEFINITIONS OF ECONOMICS MUCH TOO BROAD, THOUGH THE ECONOMIC CONCEPTION OF LIFE IS TOO NARROW. In modern usage, the term economic has come to be used in a sense which is practically synonymous with intelligent or rational. This is the first and broadest conception of the term, within which we have to find by narrowing it down progressively, a definition which will describe the actual subject-matter of the science of political economy. It is in accord with good linguistic usage to think and speak of the whole problem of living as one of economy, the economical use of time, energy, etc.—*resource* of every sort. Many definitions of economics found in text books fall into this error of including virtually all intelligent behavior. One writer has actually given as his definition of economics the “science of rational activity.” Others find

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its subject matter is "man's activity in making a living", or "the ordinary business of life". Such definitions come too near to saying that economics is the science of things generally, of everything that men are for practical reasons interested in. Such a definition is useless and misleading. It is necessary to devote a little time to making clear the restrictions which mark off the modestly limited domain of economic science within the inclusive sphere of knowledge as a whole.

In the first place, it should be understood that economizing, even in this broad sense of rational activity, or the intelligent use of given means in achieving given ends, does not include all human interests, and that the kind of knowledge on which such activity rests does not exhaust the field of human knowledge. It is, as we have said, one of the errors, not to say vices, of an age in which the progress of natural science and the triumphs of its application to life have engrossed men's attention, to look upon life too exclusively under this aspect of scientific rationality. It is requisite to a proper orientation to economic science itself as well as necessary to a sound philosophy of life, to see clearly that life must be more than economics, or rational conduct, or the intelligent accurate manipulation of materials and use of power in achieving results. Such a view is too narrow. It implies that the results to be achieved are to be taken for granted, whereas in fact the results themselves are often quite as much in question as the means and procedures for achieving results. Living intelligently includes more than the intelligent use of means in realizing ends; it is fully as important to select the ends intelligently, for intelligent action directed toward wrong ends only makes evil greater and more certain. One must have intelligent tastes, and intelligent opinions on many things which do not directly relate to conduct at all. Not only are the objectives of action in fact a practical problem, as well as the means of achievement, but intelligent discussion of the means cannot be separated from the discussion of the ends.

Living is an art: and art is more than a matter of a scientific technique, and the richness and value of life are largely bound up in the "more". In its reaction from

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the futility of medievalism and mystical speculation, the modern Western world has gone far to the other extreme. It loses much of the value of life through neglect of the imponderables and incommensurables, and gets into a false conception of the character of social and individual problems. Our thinking about life-values runs too much in terms of material prerequisites and costs. It is an exaggeration which may be useful to say that economic goods as a class are predominantly "necessary" rather than truly valuable. The importance of economic provision is chiefly that of a prerequisite to the enjoyment of the free goods of the world, the beauty of the natural scene, the intercourse of friends in "aimless" camaraderie, the appreciation and creation of art, discovery of truth and communion with one's own inner being and the Nature of Things. Civilization should look forward to a day when the material product of industrial activity shall become rather its by-product, and its primary significance shall be that of a sphere for creative self-expression and the development of a higher type of individual and of human fellowship. It ought to be the first aim of economic policy to reduce the importance of economic policy in life as a whole. So it ought to be the highest objective in the study of economics to hasten the day when the study and the practice of economy will recede into the background of men's thoughts, when food and shelter, and all provision for physical needs, can be taken for granted without serious thought, when "production" and "consumption" and "distribution" shall cease from troubling and pass below the threshold of consciousness and the effort and planning of the mass of mankind may be mainly devoted to problems of beauty, truth, right human relations and cultural growth.

**THE ACTUAL SUBJECT MATTER OF ECONOMICS.** What is discussed in the science of economics includes a relatively small fraction of the economic side of life taken in the broad sense. It has nothing to do with the concrete processes of producing or distributing goods, or using goods to satisfy wants. The study of these matters comes under the head of technology, including engineering, business

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management, and home economics. Economics deals with the *social organization* of economic activity. In practice its scope is much narrower still; there are many ways in which economic activity may be socially organized, but the predominant method in modern nations is the price system, or free enterprise. Consequently it is the structure and working of the system of free enterprise which constitutes the principal topic of discussion in a treatise on economics.

**THE MEANING OF ORGANIZATION.** Everyone is familiar with the idea of division of labor—by which is really meant specialization of labor—and many economists have taken it as their point of departure in expounding the science of economics. This was the procedure of Adam Smith, for example, whose book, *The Wealth of Nations*, published in the year 1776, ranks as the first modern treatise on economics.

Modern economic society is often compared with a living body or “organism” and the comparison is certainly suggestive. The essential similarity and the fundamental idea for our purpose is precisely that of division of labor or specialization. But the expression “division” of labor, does not tell us enough. The idea is rather division into different kinds of labor. A number of men hoeing in a field or nailing shingles on a roof exemplify “division” of labor, but not organization. The problems of organization arise only when *different things are being done*, in the furtherance of a *common end*, and in definite relations to each other, i.e., in *coordination*. A single man in raising a crop or building a house shows division of labor in another sense, since he does many different things, but this is not yet organization in the sense with which we are concerned. The human body shows organization in the true sense, since the various “organs” not only perform different functions, but must all act in a substantially continuous manner and in proper adjustment to each other. Again, organization must be distinguished from cooperation; it involves cooperation, but more. If a group of men lift a stone which is too heavy for one to move alone, they cooperate, and increase their power by cooperation; their

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action is cooperative, but they are not organized, since they are all doing the same thing.

It is obvious enough that the economic or living-making activities of the modern world are very elaborately organized. We need not pause to comment on the number of persons who have contributed, and in what different ways, in supplying the wants of the humblest citizen to-day. The authorities of the federal census prepare a catalogue or classification of occupations which lists many thousands of these economic functions for the working population of the United States alone and which yet makes no pretense of distinguishing all specialized functions. For instance, farm laborers are classed together though different individuals work at the production of a wide variety of crops. It is evident also that the accomplishment of the ultimate purpose of it all, the provision for the needs and desires of the people, depends upon these various operations being carried on with a fair degree of continuity and tolerable coordination. The problem of organization, which sets the problem of economic science, deals with the concrete means or mechanism for dividing the general function of making a living for the people into parts and bringing about the performance of these parts in due proportion and harmony.

More specifically, it is a problem of the social machinery for accomplishing *five fairly distinct functions*. Every system of organization must perform these tasks, and it is its success or failure in discharging these functions which determines its value as a system. Back of the study of economics is the practical need of making the organization better, and we can hope for success in this task only if we proceed to it intelligently, which is to say on the basis of an understanding of the nature of the work which a system of organization has to perform, and of the alternatives open in the way of possible types of organization machinery.

### **THE FIVE MAIN FUNCTIONS OF AN ECONOMIC SYSTEM**

The general task of organizing the economic activity of society may be divided into a number of fundamental functions. These are in fact very much inter-connected

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and overlapping, but the distinction is useful as an aid to discussing the existing economic order both descriptively, and critically, its structure as well as its workings. These functions fall into a more or less logical sequence. The first is to decide what is to be done, that is, what goods and services are to be produced, and in what proportions. It is the function of setting standards, of establishing a social scale of values, or the function of social choice; the second is the function of organizing production, in the narrow sense, of getting done the things settled upon as most worth doing; third is distribution, the apportioning of the product among the members of society; the fourth is really a group of functions having to do with maintaining and improving the social structure, or promoting social progress.

**1. THE FUNCTION OF FIXING STANDARDS; THE NOTION OF EFFICIENCY.** In a world where organizations were absent, where each individual carried on his life activities in isolation and independence of all others, the matter of standards would be simply a matter of individual choice. But when the production of wealth is socialized, there has to be a *social* decision as to the relative importance of different uses of productive power, as to which wants are to be satisfied and which left unsatisfied or to what extent any one is to be satisfied at the expense of any other. In the case of an individual, choice need be made only among his own wants; but in a social system, the wants of different individuals also come into conflict. As far as this is a quantitative question merely, of how far the wants of one are to be gratified at the expense of the wants of another, or left ungratified in favor of another, the problem is one of *distribution*, and will be noticed under another heading (the third function). But to a large and increasing extent, society finds it necessary or advisable further to regulate the individual's regulation of his own want-satisfaction, to enforce a community standard of living. As a matter of fact, these two problems are closely interlaced, the question of *whose* wants and that of *which* wants are to be given preference, and in what measure. It is important to observe that they are

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largely the same question. The difference in the "amount" consumed by different persons is not mainly a difference in the amounts of the same commodities; different persons consume different things, which are quantitatively compared only through the agency of the value scale itself. Nevertheless there seems to be ample justification for a logical separation of the questions of what is to be produced from that of who is to get the product, and for discussing separately the relations between the two phases of organization.

A point of fundamental importance in connection with the question of standards is that of the origin or ultimate source of wants. The system of social organization does more than reduce individual values to a common denominator or scale of equivalence. In large part the individual wants themselves are *created* by social intercourse, and their character is also largely dependent upon the form of organization of the economic system upon which they are dependent for their gratification. The workings of the economic organization in this connection form a problem too large and complex to be discussed at any length in a small book like this one. Indeed, the subject of wants is not only vast in scope but apparently cannot be reduced to scientific terms, except within rather narrow limits, falling rather in the field of art. The scientific discussion of economics has to be restricted in the main to the analysis of the organization of want-satisfaction. In the science of economics the wants are largely taken for granted as facts of the time and place, and the discussion of their origin and formation is left for the most part to the distinct studies of social psychology and cultural anthropology.<sup>1</sup>

The problem of standards or values occupies a key position in Economics. The practical objective of economics, it must be kept in mind, is that of improving the social organization and increasing its efficiency. There is a com-

<sup>1</sup> The deliberate creation or changing of wants for specific commodities as by advertising, is to some extent an exception, but in the main such activities must be regarded as creating a *knowledge* of certain *means* of satisfying wants rather than as changing ultimate *wants*.

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mon misconception that it is possible to measure or discuss efficiency in purely physical terms. The first principles of physics or engineering science teach that this is not true, that the term efficiency involves the idea of value, and some measure of value as well. It is perhaps the most important principle of physical science that neither matter nor energy can be created or destroyed, that whatever goes into any process must come out in some form, and hence as a mere matter of physical quantity, the efficiency of all operations would equal one hundred per cent. The correct definition of efficiency is the ratio, not between "output" and "input" but between *useful* output and total output or input. Hence efficiency, even in the simplest energy transformation, is meaningless without a measure of usefulness or value. In any attempt to understand economic efficiency, the notion of value is more obviously crucial since most economic problems are concerned with a number of kinds both of outlay and of return, and there is no conceivable way of making comparisons without first reducing all the factors to terms of a common measure. It will appear in due course that the science of economics is largely taken up with description and analysis of the process by which this common denominator of things consumed and produced by the economic system is arrived at, that is, with the *problem of measuring values*.

2. THE FUNCTION OF ORGANIZING PRODUCTION. The second step, logically speaking, after the ranking and grading of the uses to which productive power may be put, is that of actually putting them to use in accordance with the scale of values thus established. From a social point of view, this process may be viewed under two aspects, (a) the assignment or *allocation* of the available productive forces and materials among the various lines of industry, and (b) the effective *coordination* of the various means of production in each industry into such groupings as will produce the greatest result. The second of these tasks properly belongs to technological rather than to economic science, and is treated in economics only with reference to the interrelations between the organiza-

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tion of society as a whole and the internal organization of the industries.

3. THE FUNCTION OF DISTRIBUTION. This third function would not exist at all in an unorganized world. Each individual, acting independently of all others, would simply consume what he produced. But where production is socialized, the separate productive contribution of one participant in the process cannot be directly identified or separated. It is apparent that a modern factory operative, say one who spends all his time putting buttons on shoes or nailing the covers on packing cases, cannot live on his own product, physically interpreted. When we further consider that different individuals contribute to production in fundamentally different ways, many by furnishing land or other "natural resources" or material equipment or money or managerial or supervisory services, or by selling goods, and in other ways which make no identifiable physical change in any product, it is manifest that if everyone is to get a living out of the process some *social mechanism* of distribution is called for.

In this connection should be recalled the close relation between distribution and the control of production. The decision as to what to produce is closely bound up with the decision for whom to produce. There is also a close relation between the third function and the second. In our social system distribution is the chief agency relied upon to control production and stimulate efficiency. Ours is a system of "private property", "free competition" and "contract". This means that every productive resource or agent, including labor power, typically "belongs" to some person who is free within the legal conditions of marketing, to get what he can out of its use. It is assumed, and the course of the argument will show at length why it is true, that there is in some effective sense a real positive connection between the productive contribution made by any productive agent and the remuneration which its "owner" can secure for its use. Hence this remuneration (a distributive share) and the wish to make it as large as possible, constitute the chief reliance of society for an in-

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centive to place the agency into use in the general productive system in such a way as to make it as productive as possible. The strongest argument in favor of such a system as ours is the contention that this direct, selfish motive is the only dependable method, or at least the best method, for guaranteeing that productive forces will be organized and worked efficiently. The argument assumes that in spite of the difficulty above referred to of identifying the particular contribution to the social product made by any person or piece of property, it is possible to separate it out, and measure it, in terms of value and that the distributive system does this with accuracy enough to make remunerations vary in accord with product. If this were not true in the main, remuneration could not really afford an incentive to productive efficiency, and an economic order based on individualism would not function.

4. ECONOMIC MAINTENANCE AND PROGRESS. There is no moral connotation in the term progress; it refers to any persistent cumulative change, whether regarded as good or bad. The principal forms of economic progress include, (1) growth of population and any cumulative change in its composition or education which affects either its productive powers or its wants; (2) the accumulation of material aids to production or "capital" of all kinds, including such permanent sources of satisfaction as newly discovered natural resources and also works of art;<sup>2</sup> (3) improvements in technical processes or changes in the form of business organization. It is to be noted especially that progress has two sorts of significance for the economic organization. First, it is one of the products or values created by the latter, at a cost; i.e., it involves using productive power for this purpose and sacrificing its use for other purposes; and second, it affects and changes the character of the economic system itself and the conditions under which the system works.

This fourth function of organization, especially the provision for progress, cuts across all the other three. It is

<sup>2</sup> Destruction and exhaustion of resources not replaced is also a progressive change.

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a matter of standards or values to decide how much progress society can afford or cares to have at the cost of sacrificing present values, and what forms it shall take; it is a matter of productive organization to utilize the determined share of available productive power to bring about progress in the amount and of the kinds decided upon, and it is a problem of distribution to apportion the burdens and benefits of progress among the members of society. We may be reminded also that it is true of progress as of all other lines of human action that it comes within the field of economics just in so far as it is related to the organized system of producing and distributing the means of want-satisfaction.

The first three of these functions (or four, since No. 2 is really double, involving two aspects) are relatively "short-time" in character. They are all aspects of the general problem of an economic society working under "given conditions", in contrast with the fourth function which relates to the problem of improving the given conditions through the course of time. The first three therefore make up the problems of what may be called the "stationary economy". If society either could not or did not try to grow and progress and make improvements, its economic problem would be entirely within this field. But since economic societies do in fact face problems of growth and improvement, and make some effort to solve them intelligently, we have to add the fourth function, or group of functions. Such problems are frequently referred to under the head of "dynamic" economics; for reasons which cannot be given in detail here, this is a seriously misleading use of language, and they should be called simply problems of progress or historical problems.

The "given conditions" of the stationary economy are included under the three heads of *resources*, *wants*, and *technology*, which may be subdivided and classified in more elaborate ways. The separation is based on the plain and simple fact that with reference to social calculations and plans which look ahead only a few years, these factors, resources, wants and the technological system will not change enough to affect the argument or plans seri-

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ously. But looking ahead over historical time they do change, to an indefinite extent, and the production and guidance of changes in them becomes the dominant character of the social economic problem. In the "short-run" (of a few years), however, the problem is to utilize in the best way the existing resources and technology in the satisfaction of existing wants.

**A FIFTH FUNCTION: TO ADJUST CONSUMPTION TO PRODUCTION WITHIN VERY SHORT PERIODS.** For completeness, this survey of functions should point out that within *very short* periods society faces still another set of "given conditions", hence still another type of problem, and in consequence its economic organization has still another task or function to perform, though this fifth function is rarely distinguished sharply from those of the "stationary economy" point of view. From this latter point of view, the problem is to adjust production to consumption under the given conditions. But in many cases, production cannot be adjusted quickly, while demand conditions do change rapidly; and in addition, production in many fields is subject to fluctuations from causes beyond control. In consequence, the supply of many commodities is fixed for considerable periods of time, on a level more or less divergent from the best possible adjustment to existing conditions of demand. The supply on hand is of course the result of productive operations in the past, and has to suffice until it can be changed. In agriculture this is conspicuously true. The crop of a given year has to last until the next year's crop is produced (except in so far as other parts of the world having different crop seasons can be drawn upon). In the case of manufactured goods, production is not definitely periodic, but it is still true that the rate of production frequently cannot be changed in a short time, to meet changes in demand, at least not without enormous cost.

It follows that over short periods consumption has to be controlled and distributed with reference to an existing supply or current rate of production, at the same time that adjustment of production to consumption require-

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ments is being made as rapidly as practicable. The existing supply of wheat or potatoes, for example, must be distributed (a) over the season for which it has to suffice and (b) among the different consumers and their different needs. Thus there is a fifth function of organization, the opposite in a sense, of number two in the four above discussed, namely the short-run adjustment of consumption to past or current production.<sup>3</sup>

### ADVANTAGES AND DISADVANTAGES OF ORGANIZED ACTION

**THE REASONS FOR ORGANIZING ACTIVITY.** As previously remarked, a high degree of organization in human activity is a fairly recent development in the world's history, and is still restricted mainly to what we call the European peoples or cultures. The urge behind its development can be stated in the single word *efficiency*. The object of industrial activity is to utilize an available fund of productive agencies and resources in making the goods and services with which people satisfy their wants. Organized effort enables a social group to produce more of the means of want-satisfaction than it could by working as individuals. During the course of history, the possibility of increased efficiency has led to an ever greater degree of specialization, which in turn has constantly called for a more elaborate and effective mechanism of coordination and control, just as the higher animals require an enormously more complex nervous and circulatory system than the lower. It will be worth while to carry the analysis a little beyond the general notion of efficiency and see some of the reasons why specialized effort yields larger or better results. We must then turn to the other side of the picture and note some of the disadvantages of organization.

<sup>3</sup> It is rather typical of economic phenomena that cause and effect relations are apt to run in opposite directions in the short-run and the long-run. This is a common source of difficulty in the reasoning, as will appear more fully in the treatment of the forces which fix prices.

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THE GAINS FROM SPECIALIZATION.<sup>4</sup> The largest gain which the higher animals secure in comparison with lower, less organized forms, arises from the adaptation of structure to function. In the most primitive animals the same kind of tissue has to perform all the divergent functions of locomotion, seizing and ingestion of food, digestion, assimilation, excretion of waste and reproduction, while in the mammalian body the specialization of tissues and organs for the various functions and the increased efficiency with which all are consequently performed, are too evident to need extended comment. Some social insects produce physically divergent types of individuals adapted by structure to perform different functions. In the familiar case of the bees, the bulk of the community is made up of "workers" and the reproductive function is specialized in the queens and drones. Certain species of ants and termites present a very complex social structure containing a dozen or more structurally specialized types of individuals. One of the most interesting facts in regard to human society is the absence of definite structural specialization of individuals. Human organization is an artificial thing, a culture product. Natural differences undoubtedly exist among human beings, and are taken advantage of, more or less, in fitting individuals to specialized functions; but the differences seem to be accidental, and unpredictable. Certainly human beings do not become fused into a superorganism in the manner of the cells in an animal body. It is in fact a matter of the greatest uncertainty and one of the most disputed questions in the whole field of knowledge, as to how far observed differences in kinds and degrees of capacity are innate and how far they are the result of "nurture" and the subtle influences of environment and social suggestion. The tendency of scientific study at the present time is to place more and more emphasis on the environment and less upon congenital structure. In any case, human differences are not so definitely

<sup>4</sup> It will be recalled that we are using the word "specialization" instead of the familiar "division of labor", not only is labor divided, but it is differentiated and co-ordinated, and the other elements or factors in production are likewise "specialized"—often more extensively and vitally than the human factor.

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transmitted by inheritance as to be predictable in advance; they have to be discovered and developed and the individual fitted to his place in the system by some artificial means. There is no mechanical solution of the human social problem, as in the case of the animal organism or even of insect societies; human beings have to form themselves into an organization as well as to control and operate it when constructed.

1. UTILIZATION OF NATURAL APTITUDES; ESPECIALLY THOSE OF LEADERS AND FOLLOWERS. However, we are safe in asserting that there are some innate individual differences in human capacities and aptitudes, and the first in the list of gains from organization results from taking advantage of them. One social problem is to discover such differences and utilize them as far as possible. They can never be predicted with any certainty before the birth of the individual, in fact they cannot usually be discerned at any time in life from clear external marks; and in the course of the development of the individual they become so largely overlaid with acquired traits that they can never be separated from the latter. The most important natural differences of which we can be reasonably sure are those of physical stature and dexterity and (with much less certainty) of general mental activity. The most important differentiation in function, or division of labor, between individuals is the separation between direction and execution, or the specialization of *leadership*. It may well be true that able leaders are in general also more competent workers or operatives, but the gain from superior direction is so much more important than that from superior concrete performance that undoubtedly the largest single source of the increased efficiency through organization results from having work planned and directed by the exceptionally capable individuals, while the mass of the people follow instructions.

2. DEVELOPMENT AND UTILIZATION OF ACQUIRED SKILL AND ACQUIRED KNOWLEDGE. The principal quality in man which gives him superiority over the animals is his ability to learn, including learning to know and learning to

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do. But even in man this capacity is exceedingly limited in scope in comparison with the whole range of acquired human knowledge and activity, and a large part of the gain from organizing activity comes from the increase in the efficiency of learning which is connected with reducing the field in which an individual must exercise his learning ability. Even the specialization of leadership undoubtedly rests as much upon acquired as upon innate differences. In truth, the fundamental innate difference among men is in the capacity to learn itself. In other fields than leadership—fields of specialized knowledge and skill in the narrower sense—it is still more clearly impossible to separate the factor of innate capacity from that of acquired powers, and still more evident that the innate capacity itself is a capacity to learn rather than directly to perform. Even in the case of genius, what is inherited is an extraordinary capacity to learn, or learn to do, certain things, and the amount of actual specialization in the original bent is highly uncertain. In modern machine industry, where the operative is restricted to repetition of a few simple movements, an incredible increase of speed as compared with that of an untrained worker may be achieved in a short space of time. The operations generally involve movements very different from any which are natural to man as an animal, movements such as setting type, playing a musical instrument, or sorting mail matter into boxes; but they can be learned by any normal person, and when mastered they make possible the employment of a technology vastly more efficient than that of primitive industry. (See No. 5 below.)

**3. CHANGING PIECES OF WORK CHEAPER, WITHIN LIMITS, THAN CHANGING JOBS.** The saving of time and effort in changing from one operation to another is the third gain from specialization. It is true that if a man performs the same operation repeatedly, he must change from one object, or piece of work, to another. But by the use of mechanical conveyers, scientific routing and the like, it is found that, *within limits*, the process of bringing to the workman a procession of shoes, automobile cylinders, or hog carcasses is far less costly than having him make the

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changes in position, changes in tools used, etc., involved in performing successively on any one of them the various operations necessary to complete the making of a product, as was done under old handicraft conditions. This gain is evidently rather closely connected with that arising from specialized skill. It is to be especially emphasized, because so commonly overlooked, that in this connection there are offsetting costs, which only within limits are exceeded by the gains. Not only must the cost of changing jobs be compared with the cost of changing pieces of work as within a given factory. If each man completed a product, the workers would not have to be brought together into factories at all, a feature which also involves large costs, and neither would the materials have to be assembled from such a vast area or the product distributed back over a market perhaps nation-wide or even world-wide in extent. The costs of bringing together vast quantities of materials and of distributing the product tend in fact to offset very considerably the gains of large scale production. These costs include not merely actual transportation, but marketing costs in the form of profits, risks and losses from inaccurate forecasting of demand, idleness due to over-production, storage, insurance and the like. The public has been educated by apologists for monopoly to over-estimate seriously the real gains from large-scale factory methods; these offsetting losses are rarely appreciated to the full.

**4. NATURAL ADVANTAGES IN THE CASE OF "NATURAL RESOURCES."** However uncertain we may be as to the innate differences in men, there can be no question that the natural resources of different regions are suited to widely divergent employments. In such extreme cases as mineral deposits, for example, specialization to regions is absolute, since minerals can only be extracted where they exist, and this is quite commonly in places where any other industry is virtually out of the question. Also, "geographical" or "territorial" specialization is almost a physical necessity as between different climatic zones. Other industries may be carried on in different regions, but usually some locations offer greater or lesser advantages over

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others, which may or may not be sufficient to offset transportation costs and other costs of specialization. The question of political interference with territorial specialization, through "tariffs", bounties, subsidies and the like, has formed an important political issue in all modern nations. Such measures practically always reduce the gains from specialization and the arguments used to support them are fallacious from a purely economic point of view. In some cases a political unit can profit at the expense of others, but this is rarely possible and still more rarely achieved by the policies adopted, and is always to the disadvantage of the world as a whole.

5. ARTIFICIAL SPECIALIZATION OF MATERIAL AGENTS. DIVISION OF OPERATIONS LEADS TO INVENTION AND USE OF MACHINERY. Even natural resources are never used in their natural state. The process of developing and adapting them to particular uses is generally more or less of a specializing process and may be compared to the "education" of a human being. When we turn to the forms of productive equipment usually classed as artificial-tools, machines, buildings and the like, it is evident that specialization goes very far indeed. A tool or machine is usually much more specialized than a human being can ever be, and its efficiency in a particular task is connected with the degree of its specialization. Many things can be done, after a fashion, with a hammer; only one with an automatic printing-press or a watch-screw machine; but that one thing is done with wonderful precision and speed. Perhaps the very largest single source of gain from the specialization of labor is that it makes possible the development and use of machinery, the effectiveness of which is almost entirely a matter of its specialization to limited and relatively simple operations.

6. MINOR TECHNICAL GAINS. The gains from natural and artificial adaptation of men and things to tasks, plus that due to changing pieces of work instead of tasks (our No. 3 above) do not exhaust the economies of specialization. There is an economy in coordination due to the fact that a specialized worker need have access only to the

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tools used for the operations he continuously performs, and not to all those used in making the article. This is practically rather an incidental matter, subordinate to the specialization of equipment. In primitive industry little is invested in tools, and a large investment carries with it specialization of both workers and equipment. We may note also as a final consideration in connection with this whole subject, that in many cases any sort of effective work involves the performance of different operations simultaneously, which of course necessitates specialization.

SOCIAL COSTS OF SPECIALIZATION. All the gains from specialization are summed up in the one word, *efficiency*; it enables us to get more goods, or better; its advantages are *instrumental*. On the other hand, specialization in itself, is an evil, measured by generally accepted human ideals. It gives us more products, but in its effects on human beings as such it is certainly bad in some respects and in others questionable. In the nature of the case<sup>5</sup> it means a narrowing of the personality; we like to see people of all-around, well-developed powers and capacities. In extreme instances, such as the monotonous work of machine-tending, or repetitive movements at a machine-forced pace, it may be ruinous to health and maddening to the spirit. In this connection it is especially significant that the most important source of gain also involves the most important human cost. The specialization of leadership means that the masses of the people work under conditions which tend to suppress initiative and independence, to develop servility as well as narrowness and in general to dehumanize them.

TECHNICAL COSTS OF ORGANIZATION. We have already mentioned the fact that there is another side to the technical advantages of specialization, namely the costs of as-

<sup>5</sup> Statements of this kind need a good deal of interpretation. In reality everything depends on the alternative system used as a basis of comparison. The idyllic system of universal craftsmanship certainly never existed historically; perhaps it could not exist; but we think we can imagine its existence.

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sembly and distribution. This aspect of the situation is hinted at in the famous saying of Adam Smith that the division of labor is limited by the extent of the market, that is, really, by distribution costs. To these we must add the broader category of costs of organization in general. The existing social organization is called an "automatic" system, and in some respects it is such. But any system of bringing large numbers of people into intercommunication and coordinating their activities must involve enormous costs in actual human and physical energy. Organizations are like water-drops, or snow-balls or stones, or any large mass; the larger they are the more easily they are broken into pieces, the larger *in proportion* is the amount of energy that must be consumed in merely holding them together. The larger the army the bigger the proportion of officers, and the more unwieldy the aggregate, even then. The losses from this source in the modern world are stupendous; the number of persons, and still more the amount of brain power, which must be entirely taken up with passing on directions and keeping track of what is being done and "oiling the machinery" in one way and another is truly appalling. And the opportunity for persons to secure private gain by dislocating the organization machinery leads to still greater waste and loss.

**INTERDEPENDENCE.** A final important disadvantage of organized production and distribution is the resulting interdependence of persons and groups. This interdependence is supposed to be mutual, in the long run; but for the time being, the persons who perform such functions as coal mining and transportation are very much more necessary to, say, schools teachers or farmers than the latter are to them. Strikes or failures to function due to accidental causes produce a kind of suffering unknown in unorganized society, or even in small groups within which the pressure of public opinion is much more powerful. A phase of this interdependence manifests itself acutely in the ebb and flow of prosperity, particularly the recurrence of business crises bringing widespread distress.

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### TYPES OF SOCIAL ORGANIZATION ECONOMICS AND POLITICS

**SOCIAL ORGANIZATION AND BIOLOGICAL ORGANISM: ANALOGY AND CONTRAST.** As an introduction to the survey and classification of forms of social organization it will be useful to revert briefly to the comparison between economic society and the human body—especially to emphasize the fundamental difference. In this comparison the human individual is said to correspond to the "cell", the ultimate unit of biological structure. Individuals, like the cells in an animal body, are aggregated into "tissues" and "organs", which carry on the elementary life functions, seizing nourishment, transforming it into a condition suitable for use or digestion, distribution, disposal of waste, etc. The analogy is indeed obvious, and no doubt useful within limits, if it is kept on the level of analogy and not pressed too far. However, reasoning from analogy is always dangerous, and the conception of the "social organism" has probably produced more confusion than enlightenment. The differences between society and an animal organism are practically more important than the similarities, for it is in connection with the differences that the social problems arise.

The division of labor between the organs of the body is based on an innate differentiation of physical structure, and the coordination of their activities is automatic and mechanical. The cells or tissues do not choose what positions they will take up or what functions they will perform, nor can they change from one position or function to another. They do not meet with any of the problems which make the study of human organization a practical concern; they have no separate interests which may conflict with each other or with those of the body as a whole, and there can be no competition among them in any but a figurative sense.

Human society is the opposite of all this. Definite machinery has to be deliberately designed to reconcile or compromise between the conflicting interests of its members, who are separate purposive units; the organization

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as a whole has no value in itself or purpose of its own, according to the dominant theory of democracy at least, but exists solely to promote the interests of its members. In the same way, as we have seen, planned provision must be made in human society for working out the division of labor, assigning the separate tasks to the various persons and apportioning productive equipment among them, for distributing the fruits of the activity, and even for determining the character of its own future life and growth.<sup>6</sup>

**TYPES OF ORGANIZATION: 1. "STATUS" AND TRADITION, OR THE CASTE SYSTEM.** The nearest approach to a mechanical division and coordination of activity which is reached or can be conceived of in human society would be a universal system of *status* or "caste". It is possible to imagine a social order in which elaborate specialization of activities is achieved on a purely customary basis, and some approximation to such an ideal is found in the caste system of India. We can suppose that rigid social custom might fix all the details of the division of occupations and technique of production, the assignment of individuals to their tasks being determined by birth, while tradition would also set the details of the standard of living for everyone. Such a society would have to be nearly unprogressive, though slow change in accordance with unconscious historical forces is compatible with the hypothesis.

There are two reasons for ascribing considerable theoretical importance to caste as a system of organization. It serves to bring out by contrast the characteristics of the modern Western system based on property and competition, a contrast made famous by Sir Henry Maine's theory that the transition from a régime of status to one of contract is a fundamental historical law. In the second place there is a large element of status in the freest society; social position, character of work and standard of living are determined even in America today, perhaps nearly as much by the "accident" of birth as by conscious or unconscious selection in accord with innate personal traits. Moreover, any society based on the natural family as a unit tends toward progressively greater rigidity of stratification. With the passing of the frontier and the special conditions of a new country, rapid change in this direction has come to be a conspicuous feature of American life, though political and social motives have led us to set up opposing forces such as free education.

<sup>6</sup> See also the discussion of insect societies (above p. 16) to which the observations made in regard to the animal organism will largely apply though in a lesser degree.

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conscious selection in accord with innate personal traits. Moreover, any society based on the natural family as a unit tends toward progressively greater rigidity of stratification. With the passing of the frontier and the special conditions of a new country, rapid change in this direction has come to be a conspicuous feature of American life, though political and social motives have led us to set up opposing forces such as free education.

**2. THE AUTOCRATIC OR MILITARISTIC SYSTEM.** The first step away from a caste system in the direction of increasing freedom is represented by a centralized, autocratic system most briefly described by comparing it with the organization of an army. In such a social order, worked out to logical completeness, the whole structure of society, the division of labor, determination of policies, and allocation of burdens and benefits, would be dictated by an absolute monarch. The individual need not be asked what he wants or thinks good for him in the way of either his consumption or his share in production. The idea of organization itself might be worked out to any degree of intricacy, and coordination might indeed be highly effective. In practice, such a system would have to contain a large element of caste, unless the family were abolished entirely, as in Plato's scheme for an ideal republic. The organizing principle in an autocratic system is personal authority resting upon "divine", or prescriptive, right.

It is to be observed that this principle, while theoretically reduced to a minimum in modern society, is actually, like that of tradition and caste, very much in evidence. The exercise of "authority", while limited in degree, is as real as either "free" exchange or persuasion, within the family, in the internal organization of business units and in the "democratic" system of government itself. In an autocratic system worked out to ideal perfection, the population as well as all material goods would be the *property* of the monarch; the political and economic systems, as we habitually understand the terms today, would be completely fused, the ideas of sovereignty and property identified. A picture of such a social order

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may be found in the story of Joseph in Egypt, in the book of Genesis, after first the chattels of the people and then their persons were turned over to Pharaoh in exchange for the grain stored up by Joseph against the lean years. The theory of medieval European feudalism may be regarded as a combination of the principles of caste and of autocracy. This means that under feudalism also, there is no separation between the economic and political aspects of the social organization. The contrast in meaning between the two in the modern world will presently be looked into.

3. ANARCHISM AS A POSSIBLE SYSTEM. In the third type of organization mechanism to be considered, we swing to the extreme opposite of the two preceding, from rigorous control by tradition or arbitrary authority to absolute freedom, or purely voluntary association. Whether such a system is possible, may well be doubted, as most of the world does doubt; but it is at least conceivable, and many cultivated and noble minds have, as is well known, advocated attempting it as a practical program. The idea is simple enough; it is contended that if inequality and all hope or thought of exploiting or exercising authority over other men were abolished, people might agree voluntarily as to what were best to be done in the various contingencies of social life and the best method for doing it, and proceed accordingly, without any giving or taking of orders, or any threat of compulsion or restraint by force. It is not necessary to suppose that everyone would have to be all-knowing in regard to every sort of question. It is fully consistent with the theory of anarchy to have recourse to expert opinion; it must be assumed only that the experts would be able to agree, or that the mass of people would agree on which expert to recognize and follow. The theorists of philosophic anarchism who have attracted serious attention assign a large rôle to custom and the force of social opinion. There is no doubt that custom has in fact played the leading part in both originating and enforcing laws, especially in early times. But the case for anarchism in the sense of voluntary agreement through rational deliberation—that is, for this

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system as opposed to a caste and custom organization—is much less plausible. Apparently insuperable difficulties stand in the way of the elimination of compulsion in an intricate machine civilization subject to the stresses of rapid material progress.

4. DEMOCRACY OR DEMOCRATIC SOCIALISM. The two systems remaining to be considered represent combinations of or compromises between systems already named. The first, democratic socialism, is a compromise between the authoritarian and the anarchistic. The nearest approach to the freedom of anarchy which we even theoretically reach on any extended scale is the rule of the majority. In its main structural features a society organized entirely on this principle would resemble the autocratic, authoritarian system. The difference is that the controlling authority, instead of being an absolute autocrat, would itself be under the control of "public opinion", that is, the will of the majority of the citizens, expressed through some "political" apparatus. Again, the economic and political organizations would be fused and identified. This is the type of social structure advocated in the main by persons calling themselves "socialists" though by no means to the exclusion of other types of organization machinery, especially that of free bargaining. Custom could not of course be excluded in any case, and competitive characteristics would undoubtedly appear, since few socialists would absolutely prohibit market dealings. The exercise of personal authority—beyond that involved in the majority taking precedence over the minority in cases of disagreement as to policy—would be reduced to the minimum. It is hardly necessary to mention the fact that the activities of modern societies are to a considerable and increasing extent organized "socialistically", that an increasing fraction of their activities are carried on under the mandatory direction of agencies selected by majorities and as far as practicable made subject to the will of the majority. Examples are the postal system, the schools, streets and highways, the central banks and an increasing proportion of public utility services.

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5. THE EXCHANGE SYSTEM. The last type of organization machinery to be distinguished is the one especially characteristic of modern Western nations, in which the whole system is worked out and controlled through exchange in an impersonal competitive market. It is variously referred to as the competitive system, the capitalistic system, the system of private property and free exchange, individual exchange cooperation, and so on. Its most interesting feature is that it is automatic and unconscious; no one plans or ever planned it out, no one assigns the participants their rôles or directs their functions. Each person in such a system seeks his own satisfaction without thought of the structure of society or its interests; and the mere mechanical interaction of such self-seeking units organizes them into an elaborate system and controls and coordinates their activities so that each is continuously supplied with the fruits of the labor of one vast and unknown multitude in return for performing some service for another multitude also large and unknown to him. Although the actuality diverges in many respects from such a simple idealized description, the results which are in fact achieved by this method are truly wonderful. Like the other systems described, it does not exist and can hardly be thought of as existing in a pure form. But so large a part of the ordinary work of the modern world is organized in this way that such expressions as "the present social system" or the "existing economic order", are commonly understood to refer to the organization of provision for the means of life through buying and selling.

TWO SUB-TYPES OF EXCHANGE ORGANIZATION: (A) HANDICRAFT, AND (B) FREE ENTERPRISE. The first step in the description of the free exchange system must be to distinguish between two forms of it which differ in fundamental respects. That would be in the proper sense an exchange system or society, in which each individual produced a single commodity and exchanged his surplus of this, directly or through the medium of money, for the various other things required for his livelihood. Some approximation to this system existed in the handicraft organization of the medieval towns, and of course

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the farmers and a few city craftsmen of today typically produce concrete things to sell. We call this a "handicraft" system.

But such is by no means the characteristic form of modern economic organization. In modern industry in its most developed form no individual or small group can be said to "produce" anything. As it is sometimes put, we have gone beyond division of occupations to the division or subdivision of tasks. Typically, each individual merely performs some operative detail in the making of a commodity, or furnishes to some productive organization a part of the natural resources or capital it employs. But this difference in technology, as compared with a system where each person makes an entire article, is not so important as the difference in the personal relations, in the system of organization itself. In a handicraft system each one lives by producing and selling goods, and generally owns the material upon which he works and the article he makes when it is finished, as well as his shop or work place—most naturally in his home—and the tools or equipment used in performing his work.

In the modern free enterprise system, as exemplified in the large-scale industries, the relation of the individual to the system is of a quite different sort. As the worker produces nothing and owns nothing, he can exchange nothing, so far as want-satisfying goods are concerned. The individual in fact gets his living, not by selling and buying or exchanging *goods*, but by selling *productive services* for *money* and buying with the money the *goods* which he uses. And of course he does not carry out this exchange with other individuals, since they are in the same situation as himself, but typically with *business units*.

A business unit, or enterprise, is made up of individuals (among whom the man who sells to or buys from it may himself be included) but is distinct from these individuals and constitutes a fictitious person, company, a firm or typically a corporation. Production is now commonly carried on by such units. They are, of course, controlled by natural persons, but these "officers" act for the organization and not as individuals. Various separate

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persons (possibly with other business units as intermediaries) own and ultimately control any one business unit. The business unit itself partly owns but largely hires or leases from individuals (in some cases again indirectly) the productive power with which it operates, including the services of human beings and those of "property", natural and artificial.

It is a fact familiar to every reader of such a book as this that in the modern world economic activity has typically become organized in this form: *business units* buy productive services and sell products; *individuals or families* sell productive services and buy products. Hence the study of economics in our society is mainly the study of free enterprise.

## *The Price System and the Economic Process*

MODERN ECONOMIC ORGANIZATION, AN "AUTOMATIC" SYSTEM. One of the most conspicuous features of organization through exchange and free enterprise, and one most often commented upon, is the absence of conscious design or control. It is a social order, and one of unfathomable complexity, yet constructed and operated without social planning or direction, through selfish individual thought and motivation alone. No one ever worked out a plan for such a system, or willed its existence; there is no plan of it anywhere, either on paper or in anybody's mind, and no one directs its operations.<sup>1</sup> Yet in a fairly tolerable way, "it works", and grows and changes. We have an amazingly elaborate division of labor, yet each person finds his own place in the scheme; we use a highly involved technology with minute specialization of industrial equipment, but this too is created, placed and directed by individuals, for individual ends, with little thought of larger social relations or any general social objective. Innumerable conflicts of interest are constantly resolved, and the bulk of the working population kept generally occupied, each person ministering to the wants of an unknown multitude and having his own wants satisfied by another multitude equally vast and unknown—

<sup>1</sup> This is true just insofar as the social order is in fact one of exchange and enterprise. We do have a large and increasing amount of deliberate planning and control in modern society, but this means precisely the substitution of "political" for "economic" methods of organization.