

RISK, UNCERTAINTY AND PROFIT

BY
FRANK H. KNIGHT, PH.D.

ASSOCIATE PROFESSOR OF ECONOMICS IN THE STATE UNIVERSITY
OF IOWA



BOSTON AND NEW YORK
HOUGHTON MIFFLIN COMPANY

The Riverside Press Cambridge

1921

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The London School of Economics and Political Science
(University of London)
Houghton Street, Aldwych, London, W.C.2

No. 16

*In Series of Reprints
of Scarce Tracts in Economic and Political Science*

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With an additional introductory essay hitherto unpublished

by FRANK H. KNIGHT, Ph.D.

Professor of Economics in the University of Chicago

FIRST REPRINTED 1933
SECOND IMPRESSION 1935
THIRD IMPRESSION 1937
FOURTH IMPRESSION 1939
FIFTH IMPRESSION 1940
SIXTH IMPRESSION 1946

PREFACE TO THE FIRST EDITION

THERE is little that is fundamentally new in this book. It represents an attempt to state the essential principles of the conventional economic doctrine more accurately, and to show their implications more clearly, than has previously been done. That is, its object is refinement, not reconstruction; it is a study in "pure theory." The motive back of its presentation is twofold. In the first place, the writer cherishes, in the face of the pragmatic, philistine tendencies of the present age, especially characteristic of the thought of our own country, the hope that careful, rigorous thinking in the field of social problems does after all have some significance for human weal and woe. In the second place, he has a feeling that the "practicalism" of the times is a passing phase, even to some extent a pose; that there is a strong undercurrent of discontent with loose and superficial thinking and a real desire, out of sheer intellectual self-respect, to reach a clearer understanding of the meaning of terms and dogmas which pass current as representing ideas. (For the first of these assumptions a few words of elaboration or defense may be in place, in anticipation of the essay itself.

The "practical" justification for the study of general economics is a belief in the possibility of improving the quality of human life through changes in the form of organization of want-satisfying activity. More specifically, most projects of social betterment involve the substitution of some more consciously social or political form of control for private property and individual freedom of contract. The assumption underlying such studies as the present is that changes of this character will offer greater prospect of producing real improvement if they are carried out in the light

of a clear understanding of the nature and tendencies of the system which it is proposed to modify or displace. The essay, therefore, endeavors to isolate and define the essential characteristics of free enterprise as a system or method of securing and directing coöperative effort in a social group. As a necessary condition of success in this endeavor it is assumed that the description and explanation of phenomena must be radically separated from all questions of defense or criticism of the system under examination. By means of first showing what the system is, it is hoped that advance may be made toward discovering what such a system can, and what it cannot, accomplish. A closely related aim is that of formulating the *data* of the problem of economic organization, the unchangeable materials with which, and conditions under which, any machinery of organization has to work. A sharp and clear conception of these fundamentals is viewed as a necessary foundation for answering the question as to what is reasonably to be expected of a method of organization, and hence of whether the system as such is to be blamed for the failure to achieve ideal results, of where if at all it is at fault, and the sort of change or substitution which offers sufficient chance for improvement to justify experimentation.

The net result of the inquiry is by no means a defense of the existing order. On the contrary, it is probably to emphasize the inherent defects of free enterprise. But it must be admitted that careful analysis also emphasizes the fundamental difficulties of the problem and the fatuousness of over-sanguine expectations from mere changes in social machinery. Only this foundation-laying is within the scope of this study, or included within the province of economic theory. The final verdict on questions of social policy depends upon a similar study of other possible systems of organization and a comparison of these with free enterprise in relation to the tasks to be accomplished. This one "conclusion" may be hazarded, that no one mode of organiza-

tion is adequate or tolerable for all purposes in all fields. In the ultimate society, no doubt, every conceivable type of organizational machinery will find its place, and the problem takes the form of defining the tasks and spheres of social endeavor for which each type is best adapted.

The particular technical contribution to the theory of free enterprise which this essay purports to make is a fuller and more careful examination of the rôle of the *entrepreneur*, or enterpriser, the recognized "central figure" of the system, (and of the forces which fix the remuneration of his special function.) The problem of profit was suggested to the writer as a suitable topic for a doctoral dissertation in the spring of 1914 by Dr. Alvin Johnson, then Professor of Economics in Cornell University. The study was chiefly worked out under the direction of Professor Allyn A. Young after Dr. Johnson left Cornell. My debt to these two teachers I can only gratefully acknowledge. Since the acceptance of the essay as a thesis at Cornell in June, 1916, and its submission in the Hart, Schaffner & Marx competition in 1917, it has been entirely rewritten under the editorial supervision of Professor J. M. Clark, of the University of Chicago. I have also profited much by discussions with Professor C. O. Hardy, my colleague at the same institution, and by access to his unpublished "Readings on Risk and Risk-Bearing." Professor Jacob Viner, of the University of Chicago, has kindly read the proof of the entire work. My obligations to various economists through their published work are very inadequately shown by text and footnote references, but are too comprehensive and indefinite to express in detail.

F. H. KNIGHT

Iowa City, Iowa
January, 1921

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EDITORIAL NOTE

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LONDON · BRADFORD**

PREFACE TO THE RE-ISSUE

THIS essay having gone out of print, the London School of Economics has done its author the signal honour of including it as a number in its series of reprints. In addition, I am accorded the privilege of writing a new preface. Rather than undertake to bring the book down to date in detail, or even to correct mistakes, I am disposed to use this occasion (to offer a few comments on the type of economic theory it represents and the lines along which received economic doctrine seems to me to need development and modification,) assuming that such endeavour is to be carried on. There are several statements I want placed before any reader of the book under a present date.

I

In the first place, as the contents show, I have from the beginning of my concern with economics been especially interested in the implications of theory, the postulates necessary for theorizing, and hence the divergences between theoretical conditions and reality. This interest has grown through the years since 1915-16, when most of the work was first written, as a doctoral dissertation at Cornell University. These years have been spent in giving courses in "theory" to university classes. The period has, notably in the United States, been one of general if rather blind revolt against "classicism." This environment, together with the consequences of the popularity of economics and the effort to teach it to a general mass of students without scientific or social interests, and in addition the

political drift in the European-democratic world away from Liberalism and all its works—all has been stimulating to reflective questioning. It has been my special endeavour to clarify to myself the various possible "approaches" to economics, the subject of so much confused discussion. The result, rather terrible to confess, is something of the order of a "system" of methodology, or rather, methodologies. Though the proposal to replace price-theory economics with some other study seems indefensible, I am in sympathy with the reaction against it to the extent of wishing to see it expounded in integral connection both with emphasis on what it does not do as well as what it does, and with an adequate survey of what other types of treatment of the same general subject-matter have to offer.

Economic theory based on utilitarian premises, which is to say all "economic" theory in the proper sense of the word, is purely abstract and formal, without content. It deals, in general, with certain formal principles of "economy" without reference to what is to be economized, or how; more specifically, price-economics deals with a social system in which every individual treats all others and society merely as instrumentalities and conditions of his own *Privatwirtschaft*, a mechanical system of Crusoe economies. It discusses the use of given resources by given "owners," in accord with a given system of technology, to satisfy given wants, all organized through a system of perfect markets. Any question as to what resources, technology, etc., are met with at a given time and place, must be answered in terms of institutional history, since all such things, in common with the impersonal system of market relations itself, are obviously culture-history facts and products. (It is true that in some sense and some degree "economic" motivation and process, meaning the effort to secure maximum results

of a given kind from given resources through correct allocation among alternative channels of use each subject to "diminishing returns," may enter into culture-history.—*Cf.* below, p. xviii.)

(But there is another and deeper sense in which price-theory data are inherently without content, as regards the wants which drive the system. For such a treatment, these must be viewed as wants for the goods and services produced, bought and sold, and consumed. But such wants are in a vital sense unreal as well as abstract. (Commodities and services are in a very limited degree wanted for their intrinsic properties; in the main they are symbolic of ends the substance of which is a social relation or ideal value.)) The classical economists fell into two disastrous errors (the other to be noticed later) connected with taking food and eating as the type of economic interest. Eating itself is, in fact, a highly social interest, and the least consideration of, say, clothing, not to mention the "higher" wants, would have given a very different colour to the treatment. Of course people want nourishment and certain requirements for physical comfort, but the means actually desired for meeting even such needs depend on social standards historically formed. In the great bulk of wants satisfied through the market, a desire for "goods and services" because of any intrinsic quality is a minimal element. (Any realistic treatment of economic life, especially with reference to its problems, calls for recognition of a fairly clear scale of motivation, the strata of which range away from the purely economic level where physical means are used to realize ends which are quantitatively a function of the means employed. A brief and partial list will indicate the nature of the scale.)

As compared with subsistence and comfort, a much larger element in wants is æsthetic. The degree to

which æsthetic appeal depends in some universal way on intrinsic quality, how far it goes with the stable features of a culture, how far it is a matter of fashion or socio-historical accident, has long been for me one of the most fascinating questions lying hardly below the surface of economic discussion. (Largely overlapping with the æsthetic element in wants are the purely "social" wants, merely symbolized by particular economic goods, as the desire to win in a game centres in points or pieces. Social wants fall largely under such polarized forms as conformity and distinction, freedom and power, never clearly separable in analysis. Another element is the desire to make an impression, ranging in form from angel to devil or as widely along intersecting scales, or the form may be indifferent. Less directly social elements in motivation also refuse to fit the economic pattern. Such are the appeal of familiarity and of novelty, the interest in activity and achievement with the particular content accidental, and the element of uncertainty affecting a wide range of interests. (In this connection I still find a fundamental significance in the analysis of uncertainty in the essay, and am puzzled at the insistence of many writers on treating the uncertainty of result in choice as if it were a gamble on a known mathematical chance; in particular, I may remark that I can make no sense at all of Professor Pigou's treatment of uncertainty as a factor, in the first appendix of the *Economics of Welfare*—or indeed, of his general conception of a factor.)

Finally, of greatest practical significance among non-rational elements in motivation is the factor of valuation. It seems to me that a large part of deliberate action is affected with a desire to be right or correct in some sense. But the wish to get the right, or best possible solution of a problem cannot be classed with

desires for a specific result; when interested in a problem one does not even wish someone else to give him the right answer. The consequences for economic theory are far-reaching. It must deal with ends of action in some sense or lose all connection with the concept of economy, to say nothing of relevance to economic problems. But the only conception of end which can be regarded at all in the light of a scientific datum is a desire for a describable thing or situation existing in an individual mind. Now several lines of social-psychological theory converge in the view that most-conscious desire is ultimately a wish to play a rôle, to be some kind of a person in some kind of a human world (It has already been indicated that ideals of personality and society cannot be described in terms of physical configuration, hence cannot be brought into that realm of subject-matter which is so recognizable from description as to be called "science." Such content belongs rather to a universe of meanings and values) (whether good or bad, wise or stupid, is not in question).

(But that is by no means the end of the difficulty. It is equally important for any social theory to recognize that there is a kind of description of such matters, which is not scientific in the natural-science sense, and to be clear that discussion has to go forward into an even more intellectually troublesome field.) As soon as such ideals begin to be *discussed*, there is an appeal to norms, having an imperative quality, (an element of problem-solving on a normative or moral level.) For discussion of ideals cannot be confined to pure description,—such description as is possible. Indeed the same is true in a different sense of all science; it describes what an observer ought to see, what he will see if he sees correctly; the alternative is pure self-revelation, mental undressing, and any interest attaching to it is literary, not scientific. (Correspondingly, any social science

implies recognition of and dealing with "real social values." (The significance of all this is that economics cannot be economic without being both political and ethical.) Such approach to scientific quality as is possible is to be achieved by striving for a clear relation between description and evaluation at different levels. The difficulty here is that the tendency of expositors is in the opposite direction; one interested in facts is impelled to re-enforce truth with practical relevance, and one interested in policy tries to strengthen his appeal by giving his statements the colour of scientific objectivity. It is little wonder that economic theory has been slow in straightening out the relations between price and value or between analysis and propaganda.

On the basis of different conceptions of behaviour, or different aspects of or elements in behaviour which may receive more or less exclusive attention, there are some half-dozen main types of treatment of economic phenomena. (1) A statistical study of the physical data, commodities and prices, with subjective or human elements left out. Such a discussion is only by implication economics, and cannot be literally carried out, since uses as well as physical properties inevitably enter into the classification of commodities. (2) Treatment in terms of motivation considered as fact. This is the conception more or less closely approximated in traditional economics, disregarding political exhortation by the authors. But since motives can only be objectively defined and classified with relation to observed results of action, this method runs into the first if it pretends to literal objectivity. If it does treat motives realistically, it must recognize that they are abstract, relate to social patterns, and differ from actual behaviour through error in a two-fold sense, error in reaching a goal and error in conception of the

goal itself. (3) (Recognition of other elements in motivation), social-symbolic, ethical, etc., will make the treatment more realistic and true in a human sense, less scientific in the sense of the objective sciences of nature.

(4) The procedure of No. 3 runs inevitably into considerations of social policy, but in such treatment there is a kind of objectivity possible, policies and results being treated as facts. However, the conceptions are far from those of natural science, since the procedures dealt with are essentially rules of the game and the results different kinds of game or social constitution. The instrumentalism of science would conceive of each individual as pitted against all others in an endeavour to manipulate them to his private ends. This cannot be done by "scientific" methods, for the technique takes mainly such forms as coercion, persuasion, and deception, which have no meaning in the relations of men to natural objects. The character of social result implied needs no comment. (5) Outright preaching or propaganda for any social policy which the author considers desirable or desires. It is a matter of life and death for economics as a science in the limited sense possible to keep the desired and the desirable separate, but the tendency is rather toward confusing them. In connection with (4) and (5) it is also vital to preserve the distinction between objectives in a fairly concrete sense and objectives in the form of social relations. The treatment of one such abstract relation, namely Liberty, played havoc with the conceptions of the classical economic tradition. These writers not merely confused propaganda for liberty with analysis of a free system but conceived of liberty in a largely erroneous way as a means, with maximum pleasure as the end. Liberty may be and certainly is desired by men apart from any belief that they will make their decisions

more wisely than might be done for them, from the standpoint of their own economic well-being. Just as obviously, liberty may be treated as a value, a duty, and all modern Western legal systems do so treat it, in prohibiting the individual from contracting it away. (In addition, liberty may be advocated, within wide limits, as an alternative to the government crippling itself for possible useful functions by attempting what it cannot perform.) The classical thinkers also tended to forget that economic liberty is freedom to use economic power and that consequently its content may range from slavery to enslavement of others, depending on the distribution of economic power. They even appealed to the desire of every man to better his condition, including that of his heirs, without noticing that freedom to use power to get more power involves a cumulative tendency to inequality.

(6) A heterogeneous group of "approaches" results from centring attention on history and historical causality. As already noted, this standpoint is involved whenever the exposition passes beyond the abstract assumptions of a stationary economy to treat of content or change in content. It is, indeed, common to appeal to economic motivation to explain historical change, this being the first article of the creed which has come to be called Marxism, so largely swallowed by historians who have never worked critically with economic concepts. (While historians preach an economic interpretation of history, economists work toward a historical interpretation of economics, somewhat as many psychologists are eighteenth-century materialists, while physicists grow rationalistic, idealistic and romantic.) In brief, changes in conditions affecting economic life can themselves be explained in economic terms if and insofar as they are the result of "rational" abstinence (*not* "waiting") and investment. This

applies to the (three fields of change, affecting wants, resources and technology.) It is not without meaning to view the balancing of present against future as similar to any other economic comparison. But in addition to all the limitations on the economic view of motivation already noted, sacrifice of present to future necessarily means sacrifice of a fairly immediate, definite, predictable, and secure future for one the opposite in all these respects, and known to lie chiefly beyond the life-time of the person making the choice. Economic development involves the *permanent* conversion of "present goods" into income, really a large income for a short period into a small one in perpetuity. It is doubtful whether the interest in the future "as a whole" can be considered as economically rational at all, and it is certain that such an interest plays little if any rôle in actual saving and investment; the real motives in this case are almost or quite entirely what the real motives of consumption are largely, *i.e.*, symbolic and abstract.

(I must regard it as one of the major errors in the classical tradition that it failed, and still largely fails, to make a sharp and correct theoretical distinction between the working of a system under given conditions, including movement towards equilibrium, and changes in the given conditions or content of the system itself.) This is reflected in the current misleading use of the concept of economic dynamics to refer to such historical changes; it can properly refer only to the movement of a system toward equilibrium under given conditions. A related error is the treatment of historical changes as tending toward an equilibrium. None of them do so in the proper meaning of the words—a statement which may be taken as a definition of historical change, though the idea of irreversibility is also involved. Historical changes are rather, in general,

self-aggravating or cumulative. Progress (in any direction) opens the way to further progress, unless some cataclysm or the mysterious moral phenomenon of decadence intervenes. (Historical change should not be referred to as growth—as I have carelessly done—without pointing out that it involves growth in two rather definitely opposed lines, wants and level of provision; it is not possible to define objectively a fixed total of either, but it is none the less necessary to distinguish analytically between a change in the total and a change in form or direction with total unchanged.)

II

(Turning briefly to the detailed content of price theory in its application to a historically stationary economy, I should like to note a few ways in which I think the material might be made more sound, realistic and relevant than it generally is. (Many of the points have received notice in print, by myself and others, but are not incorporated into the accepted fundamentals; I disclaim originality—anything very original in economics would be wrong anyway—but since such considerations are more regarded than they ought to be, and readers may be reminded of recent discussion, I may say that this is the line along which I have presented the subject for a dozen or more years.)

1. Nearly all suppliers of economic goods and services, outside of a few fields in which the identity of the seller is lost or production is according to specifications, enjoy some degree of monopoly. Each has a monopoly within a certain *market area*, and competition is effective only at the boundary between market areas. The condition of equilibrium is equality between incremental cost and incremental revenue; price, which is to say product (see below) may or may not be

classified within the market area. (a) A supplier is a *business unit, or firm*, individual or corporate, which must not be confused with the technical unit, or plant (contrast Pigou, *Ec. of Welfare*, p. 219). The size and scope of the plant is a technical detail to the business unit, like any other phase of machine or building design. The relation between efficiency and size of firm is one of the most serious problems of theory, being, in contrast with the relation for a plant, largely a matter of personality and historical accident rather than of intelligible general principles. But the question is peculiarly vital, because the possibility of monopoly gain offers a powerful incentive to *continuous and unlimited* expansion of the firm, which force must be offset by some equally powerful one making for decreased efficiency (in the production of money income) with growth in size, if even boundary competition is to exist. (b) A firm expands along several dimensions or axes, and theory stands in need of a development of the concept of market area or field of demand and supply. The detail of geographical area has received some attention, rather superficial as I view it; but more important is (a commodity or service area, a "utility surface" in another than the usual sense) As a matter of fact, a commodity must be defined by defining its market area (or the other way); all costs, including transportation and every sort of selling cost, correspond to dimensions in a commodity, and the dimensions of a firm are found by summing those of whatever products it sells either at different prices or under different names. (c) Generally speaking, the expansion of a firm (involving more or less change in size and re-spacing in various dimensions of its technical units) cannot be represented by a reversible functional relation; in consequence, real equilibrium will depend on all the accidents and errors of the process by which

it is reached as well as on the conditions to which final adaptation is made.

(2) Current interest in monetary and trade cycle theory brings out a major omission in the standard presentation of economic theory; it is one scientifically defensible, to be sure, but practically serious since even professors of economics, to say nothing of the public, do not generally have scientific minds. In any case, the situation underlines the need for emphasis on the theoretical difficulties of money. If the exchange-medium of a society has no intrinsic service value, the velocity of circulation must approach infinity, as the amount of uncertainty affecting the individual's need for money is reduced toward zero; if it does have independent utility, its value will approach that as a limit.

(3) The notion of equilibrium is one taken from mechanics, and its use in economics carries the assumption that all the cause-and-effect relations of the system can be represented by a set of simultaneous equations. But to be meaningful, such equations must be "dynamic" in the correct sense of the word; they must embody some process of movement toward equilibrium and not merely describe conditions at equilibrium; they must be analogous to equations of motion.) This calls for actual, continuous simultaneity of cause and effect in every relation expressed. That the facts do not fit such assumptions is obvious enough, and, more important for theory, it leads to a muddle in the conception of the dimensions of economic magnitudes. Most of the content of economic theory must relate to *lags* between cause and effect, and these are not got rid of by any juggling of concepts on the pattern of acceleration in mechanics, and still less are they adequately dealt with on the pernicious analogy of "friction," which covers so many sins in economic thought.

wealth; production is the rendering of service, by goods (wealth) and by persons; net additions to or subtractions from wealth (capital) must be marked out through a sharp separation of maintenance (and replacement) from income, in accord with the only possible accounting procedure. It would, indeed, be still better if, by the use of distinctive terms net change in capital wealth could be set apart from production and income correlative with consumption.

5. Last under these questions of mere accuracy of formulation, we still have with us a distressing burden of the false fundamentals of the classical (meaning pre-Jevons-Menger) system. Such are cost as absolute instead of relative (when said to determine price); wages, interest and rent as distributive shares; payment for sacrifice, instead of for service; factors of production, instead of concrete agencies (free human beings and owned agencies) on one hand, and abstract capital in owned agencies on the other; also, the more modern but equally pernicious notion of utility, if given any meaning but the purely abstract effective motivating power in a unit of (commodity or) service; and more such antiquated lumber.

III

Having started out by insisting on the necessity for economics of some kind of relevance to social policy—unless economists are to make their living by providing pure entertainment or teaching individuals to take advantage of each other—I must in closing set down a few observations on the conditions of relevance. These observations cannot be very optimistic, from the standpoint of the prospects of economics in the traditional form, or that of the values which the age of liberalism thought the main historical achievements of the race. Looking at the recent course of governmental policy,

in the home-land of free trade and elsewhere, one is not encouraged as to the prospect of governments being guided by economists or by sound economics, meaning actually "economical" principles. Looking at published economics as a whole in the same period, it is impossible, for me, at least, either to find mystery or to feel regret as regards the first part of the proposition. But, looking deeper at the realities of social life and its problems, there is no longer any mystery—however one may feel about it—either in the progressive degradation of the text-books and literature by which the public judges our profession, or in the movement away from "liberalism and all its works" referred to at the outset.

(The first and main suggestion, looking towards a more relevant economics, is that the inquiry into motives might well, like charity, begin at home, with a glance at the reasons why economists write books and articles. These things are also commodities, produced competitively for a market, and the traffic contains pointed indications at the nature and relative importance of consumer and producer interests in the wider field. In addition, the behaviour of economists provides evidence regarding the possibilities of settling questions—and of settling them rightly—by free discussion.

[Economics finds itself in a vicious circle.] To get recognition and have influence, it descends to the public's level of thinking; then competition for recognition and influence take the place of the effort to get things straight; finally, success in this competition becomes the condition of membership in the profession itself. It is no doubt idle to say, now, that there "might have been" an economics profession made up of minds exclusively devoted to the problem-solving interest and working co-operatively at this task, instead of more and

more hawking their wares competitively to the public by way of settling their "scientific" differences. Whether such a profession might have exercised social leadership, rather puts the same question in a general form and brings out an essential contradiction in the notion of leadership in a "free" society. If the crowd selects its leadership by acting as judge in an open competition for the place, then the crowd is its own leader, which is the literal meaning of democracy, and the thinking which directs affairs is crowd thinking. The rôle of the individual is limited to suggesting and competitively promoting ideals and programmes—if even such activity can really originate in an individual.

It is not easy to see, at this date, just what was the nature of the Enlightenment faith in popular government. Perhaps the main ingredient was a belief that the religion of property and a free market was too obviously "the truth" ever to be seriously questioned, and that it would reduce the rôle of government to negligible scope. Insofar as it was a faith in mass decisions in any sense, the more or less defensible element seems to have centred in the ability of the mass of men to judge personality, as to honesty and competence, an essentially mystical faculty of "liking" the proponents of right procedures to right ends rather than those opposed, without understanding the arguments involved. At best it would seem to be necessary that the contest should take the form, in the main, of some kind of serious treatment of issues, rather than pure oratory, buffoonery or bribery. But in the nature of the case, the crowd must determine the form of the contest as well as judge the winner. The techniques employed by the contestants will be those which "work." (But perhaps the democratic faith was itself a mere case of crowd-thinking, for which it is as futile

to seek an intellectual basis as in the case of any fashion or craze.)

‘The one thing clear now is that crowds “think” very little if at all, in the sense of impartial analysis or criticism.’ And this is notably true under the conditions of a political campaign, and one of the results of modern technology is to give the governing process much of the character of a continuous campaign, the first principle of which is to create the crowd-mind. Anything that appeals to the crowd-mind must be simple and romantic; its favourite formula is *credo quia impossibile*, its favourite policy, witch-hunting. It cannot be expected to show anything but contempt for “sound economic theory,” and indeed its thinking on such a primitive issue as criminology is no better. But, the question once raised and general discussion started, there is no possibility of its “turning itself off,” no chance of going back to unthinking acceptance of leadership as it happens. Democracy must go through to its inherent limit, or revert to tyranny.

‘The implication for this preface is that relevance in economics depends on its being integrally tied up with the fundamentals of institutional history. The heart of this subject, again, from the economic standpoint, is the relation between the rôles of conscious and unconscious, and rational and emotional factors, in continuity and change. A little reflection on these lines should make it less easy on the one hand to teach “naïve economism” and on the other hand to assume, practically in the same sentence, as American “Institutionalists” rather habitually do: (a) that it is all a matter of historical forces, and (b) that it is all going to be made over in short order, by the essayist or orator, from his typewriter or speaker’s stand. In this connection, it seems to me that a peculiar importance attaches to language as the basic institution, and basic “tool,”

at once of rational and emotional communication, which are the stuff of social and all human life. Not much linguistics can be included in the general training of economists, but students might be reminded of the main facts. The controversy between the historical and analytical views of law, might well, however, receive rather detailed emphasis in any economics study programme. Beyond that, the need is for some grasp of the infinitely complex, intangible and downright contradictory character of men's interests, conscious and unconscious, and their interaction with equally intricate mechanical, biological, neural and mental processes in forming the pattern of behaviour. The great vice is over-simplification, and the leadership which gets attention is as much addicted to it as the inarticulate public. As between such conceptions as universal love, will-to-power, and economic interest, the only question is whether any one can be more absurd than another as a theory or as an ideal of social life.

Most pertinent for economists is the admonition to achieve some defensible perspective in their view of the rôle of intelligence, not forgetting the relation between their own and other people's. Most of us are still hypnotized by Enlightenment ideas, both of its nature and of its importance, and this situation has much to answer for in the current reaction toward anti-intellectualism. There is an intellectual element in the social problem. It is of two-fold nature, improvement in technology, and correct allocation of resources, the second being the economist's field. In any social order, and whoever makes the decisions affecting consumption and production, there is a difference between economy and waste, to which it is stupid to be indifferent, and the principles of what is (not too happily) called "marginalism" are those of intelligent

policy. But these tell nothing as to content, as to what concretely should be done.

Moreover, in a deeper sense, it is doubtful how far it is possible to speak either of intelligent political policy or of political intelligence. It is a late date to be getting rid of the notion that intelligence provides any solution for social problems. The existence of science itself requires a scientific attitude, which is a moral-aesthetic attitude, opposed to charlatanism and plain faking (which are difficult in the face of experimental tests, and easy in social science where such tests are inapplicable). Even under "given conditions," broadly interpreted, there are few social interests entirely unaffected by conflicts of interest within society, and no "intelligence" can tell anyone where or how far to pursue a special interest against that which is more general. But the great bulk of social problems have to do with the "given conditions," the constitution and laws of which make society society, which fix the terms of co-operation and of competition, and of association which is not primarily either. (And all three types are inseparably mingled in any problem situation.)

We "intellectuals" may condemn the crowd-mind for unintelligent conceptions of economy, but we should recognize that the more vital problems are not problems of economy, but of maintaining social unity in the face of economic interests. And the foundations of unity lie not in intelligence, but in habit, emotion, and ideals of value. Intelligence, as suggested before, is a very ambiguous notion. In social relations we may admit that intelligence enables the individual to play the game more effectively, though even then it is intelligence of a very different sort than that which proves mathematical theorems or invents machines. And equally, intelligence may enable the player to cheat more

effectively, or convert the game into a fight. The social problem is to preserve respect for the rules, and to make such rules as result in the best game for all, players and spectators. This is a moral problem, and no reasonable stretching of the word intellectual will bring it under that category. Indeed, if intelligence is to be taken in the instrumentalist sense of power (to get what one wants) now philosophically fashionable (particularly in America, but it is the essence of the whole utilitarian tradition, of which price-theory economics was an integral part) then it is definitely and clearly anti-social in tendency. If it is not counter-balanced by moral forces, the development of such intelligence must disrupt society. For, while the individual may have everything to gain by preserving society in some form, and may recognize the fact, this will not and does not lead to agreement on any particular form. Historically, political unity on any considerable scale has originated rather in conquest by force, and been maintained by habit, assisted by fear and hostility toward other social groups, and by religion and morality in which the need for unity against external foes plays a dominant rôle. Truly, the social problem is more difficult than it was conceived to be in the Age of the Enlightenment now apparently coming finally to a close, and is of a considerably different character.

As to the part to be played by anything like a scientific economics in helping to solve the social problem, I do not pretend to have any clear or simple formula. Negatively, one thing is beyond dispute; it cannot be at all that of a natural science, unless government is to be an absolutism in an absolute sense never yet seen, and the economist an adviser to such a government, the first prescription regarding his work being that it must never directly reach the public "on"

whom policies are to be carried out. Regarding any published work, two things would appear requisite. The first is that the writer have the utmost clarity regarding his rôle and what is involved when a member of society sets himself up in the position of thinking for society. This includes (secondly) equal clarity regarding the process of group thinking in its relation to group action. All of these questions are the opposite of easy (and consciousness of the difficulties will not tend to make one's work a literary best-seller). Even the most general considerations, which should be axiomatic, are actually disputed. In any exposition pretending to relevance it is, of course, assumed that thought and expression are more than mechanical process—yet men recognized as scholars and scientists profess "behaviorism."

In addition, group thinking or discussion involves something on a still higher—and intellectually more unsatisfactory—level. Discussion must be something other than (a) assertion of a preference—"I want it so"; or (b) sales-talk in the interest of such a preference; or (c) "talk" as itself a mere commodity, produced to sell competitively. (There is no objection to any of these, but they are not discussion, aspiring to relevance.) Discussion must be problem-solving, hence must assume that there *are* problems and right solutions, or at least better and worse solutions. These solutions can be of the nature of "truth" or of "right"—aesthetic or moral; but truth is a form of right and right a form of truth, and yet there is a contradiction for our minds between the assumptions underlying the two lines of interest and endeavour. Understanding of any material implies at least a theoretical possibility of manipulation and control, which presupposes determinism in the material itself, *and* a position of the subject who understands *outside* of the material, in a relation of understanding

and control over it, but without being understood and/or controlled by it. Now any discussion of any problem—scientific problems are also social—which is not self-stultified from the outset, must be addressed by one such more or less self-determining subject or mind to another or others. We have no systematic logic for this relationship, which is merely to say, no answer at all satisfactory to the primal dilemma of thinking: that man seems to be at once a part of nature, made what he is, and controlled by nature; and outside of nature, in the relation of maker, or remaker, and controller over nature. No thinking, about either nature or man, can make sense unless the second relation is accepted as real. So the thinker about society, if he adopts a natural-science position, must assume that society is timelessly determined by its own nature, which can only be changed from the outside, by a "miracle." But to have relevance to social action, he must assume *both* that society can choose to change itself *and* that he can participate in initiating the choice and can influence its character—or else he must assume that he is outside of society and can change it. But in the second case, his discourse is an attempt to control, not a discussion. Parallel to the man-nature dilemma, we face a similar paradox that the individual is at once a part of and outside of society.

The crux of the whole matter lies, I think, in the concept of discussion. As a plain matter of fact, we do not discuss problems with natural objects, and we do, or may, with human beings. But discussion must be contrasted with persuasion, with any attempt to influence directly the acts, or beliefs, or sentiments, of others. Discussion is a co-operative quest of an impersonally, "objectively" right (or best) solution of an impersonal problem. It cannot be an attempt to "sell" a solution already reached, or it is not discussion.

This, I would say, is the basic error, or heresy, of modern civilization, and represents a kind of original sin. The spirit of discussion is the essence of the scientific spirit, but the antithesis of the scientific method. The utilitarian-pragmatic philosophy involves the fatal confusion of carrying the scientific method, rather than the spirit, into social relations. The result is inevitably conflict, and finally chaos or tyranny, rather than agreement and unity on a basis of mutuality. For the instrumentalist-scientific attitude, generalized, becomes mutual utilization, mutual exploitation, which is a logical impossibility.

But again, utilization of other human beings is not primarily economic utilization, for no distinctively human interest is at bottom economic. They all centre, as a matter of social-psychological fact, in a wish to be a person of some kind in a society of some kind. The real question is whether it is to be "my" kind of person and society or an ideal kind, acceptable to all. The second alternative does not, however, eliminate the competitive interest, provided that the interest in winning is effectively subordinated to the interest in having the best possible game for all alike. But the "Adam" in man pulls in the other direction.

There is no better or more crucial illustration than the situation of the economist. The positive prerequisite of a useful or true economics is merely that it be aimed singly and whole-heartedly at finding and exhibiting the universally useful and true (or nearest possible approach to such an ideal) rather than at personal aggrandizement in any sense. To this end, it must be above reproach as to any desire to persuade, to exert power, for any purpose. Radical critics of economics accuse its expositors of being propagandists for a class interest. That the authority of economics has been claimed for what would now be classed as

propaganda for special interests is, of course, true. The "class" interest detail probably has a *little* validity in Europe, where feudal traditions survive to some extent; I do not think it has any at all in America, where class means simply community of interest, and there are literally more such classes than there are individuals. But the "economic" character of effective communities of interest is, in any case, chiefly accidental and superficial. It is paradoxical but true that men are less likely to quarrel over food when it is really scarce than when it is abundant enough to represent other values rather than literal nourishment. Of course, control over visible and tangible objects will always be a mode of, and element in personal and group aggrandizement. But it is not in any distinctive sense economic and is not the interest against which economists have needed to be on guard in an age which attached religious value to both science and liberty.

It seems to me probable that the first historical age of humanitarian liberalism is passing, that Western civilization will in the near future largely go over to a sort of mediævalism, but with a political orthodoxy and priesthood in the place of the religious in setting the criteria of thought and action. Free discussion, in the form which it has actually taken, has in fact been experimentally proven a failure. It leads through chaos to tyranny, or to tyranny as the alternative to chaos. People cannot be encouraged, or allowed, to think independently unless they can and will think more or less impartially and correctly, and in that sense, by that path, think alike. The failure, however, I wish to argue, lay in the fact that social "discussion" was false to the ideal of discussion, was not discussion, but debate, a contest for personal aggrandizement. (There were material prizes, but that is not the essence of the matter.) Social "science" and economics have not at

all withstood the general movement, the natural implications of utilitarianism, scientificism, instrumentalism. The best we can hope is that a few people will learn the lesson and carry it forward to another historical juncture, when the "other man," who is, after all, likewise in humanity, the lover of truth and right, and of mutuality and real co-operation, may get another chance.

FRANK H. KNIGHT.

Chicago, August 1933.

ADDITIONAL NOTE

FOR REPRINT OF 1940

(THE new preface above was written under pressure, soon after I had become convinced that the "classical" (Bohm-Bawerk) theory of capital, based on the notion of a period of production, is fallacious, but before I fully realized that my new position on this point calls for a re-statement of the theory of uncertainty in relation to profit.) The Preface has now become a part of the book, and like the latter could hardly be revised without being thrown away and re-written. (In connection with the present reprinting, it seems proper to call attention to this, perhaps the most fundamental change which would be made in the argument if the book were to be re-written now.) This may be done by reprinting the substance of a footnote to (an article by the writer on the theory of investment in the *Economical Journal* for 1935 (at pp. 79-80).)

The theory of profit developed in my book, *Risk, Uncertainty, and Profit*, rests upon the general view of the entrepreneur or business manager as buying productive services "now" and selling the product in the future. This theory needs to be entirely re-worked. Profit must be computed with respect to some defined interval of time, an accounting period, which may be long or short: It is the difference between receipts and disbursements during such a period (or between the credits and charges to any account), plus or minus the change in the (aggregate value) of the assets of the enterprise, or department or venture, during the period. The main point for emphasis is that the items

on the two sides of the balance sheet all belong to the same interval, which may be taken as short as one pleases, down to a point in time as a limit. The *crucial* element is the change in asset values—appreciation or depreciation, investment or disinvestment, as the case may be.

It is by way of the capital account that uncertainty enters into the rational management of production, and in changes in capital the special problem of profit lies. Capital, or asset value, is always a matter of anticipation, extending to the *indefinite* future, in effect, to infinity. It could be otherwise only if all business in the entire system, or economy, of which the enterprise is in any way a part, were conducted on the basis of an anticipated universal liquidation (the "end of the world"), at some given date. For liquidation and the closing of any particular capital accounts always involves transfer of residual assets to some other account. This is also true where the capital is entirely consumed by the individual owner; disinvestment is effected, at least in part, through the sale of assets to other owners.

There is no interval between production and consumption. Any productive act or expenditure always yields its result "instantly," in absolute simultaneity with the production itself, either in the form of service consumed as it is rendered or in the form of a net accretion to assets, *i.e.*, to capital. The complete maintenance, including replacements, of all "equipment" used, is a part of the production of the services currently consumed. A question arises, as to why the production of additional capital during any period cannot be treated as the present production of the subsequent yield of that capital. The problem is too intricate for discussion on this occasion. It is to be noted only that the future yield in question would

have to be treated as a "stream" extending to the infinite future, and in practice, as a stream of uniform magnitude—unless, again, we are to think of an entire economy conducting its operations in anticipation of complete liquidation at a known date.

FRANK H. KNIGHT.

*Chicago, Ill., U.S.A.,
June, 1940.*

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