# An Essay on the Nature and Significance of Economic Science



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# CHAPTER I

### THE SUBJECT-MATTER OF ECONOMICS

1. THE object of this Essay is to exhibit the nature and significance of Economic Science. Its first task therefore is to delimit the subject-matter of Economics —to provide a working definition of what Economics is about.

Unfortunately, this is by no means as simple as it sounds. The efforts of economists during the last hundred and fifty years have resulted in the establishment of a body of generalisations whose substantial accuracy and importance are open to question only by the ignorant or the perverse. But they have achieved no unanimity concerning the ultimate nature of the common subject-matter of these generalisations. The central chapters of the standard works on Economics retail, with only minor variations, the main principles of the Science. But the chapters in which the object of the work is explained still present wide divergences. We all talk about the same things, but we have not yet agreed what it is we are talking about.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Lest this should be thought an overstatement I subjoin below a few characteristic definitions. I have confined my choice to Anglo-Saxon literature because, as will be shown later on, a more satisfactory state of affairs is coming to prevail elsewhere. "Economics is a study of men earning a living" (Marshall, *Principles*, p. 1). "Economics is the science which treats phenomena from the standpoint of price" (Davenport, *Economics* 

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This is not in any way an unexpected or a disgraceful circumstance. As Mill pointed out a hundred years ago, the definition of a science has almost invariably. not preceded, but followed the creation of the science "Like the wall of a city it has usually been itself. erected, not to be a receptacle for such edifices as might afterwards spring up, but to circumscribe an aggregate already in existence." Indeed. it follows from the very nature of a science that until it has reached a certain stage of development, definition of its scope is necessarily impossible. For the unity of a science only shows itself in the unity of the problems it is able to solve, and such unity is not discovered until the interconnection of its explanatory principles has been established.<sup>2</sup> Modern Economics takes its rise from various separate spheres of practical and philosophical enquiry-from investigations of the Balance of Trade-from discussions of the legitimacy of the taking of interest.<sup>3</sup> It was not until quite recent times that it had become sufficiently unified for the

of Enterprise, p. 25). "The aim of Political Economy is the explanation of the general causes on which the material welfare of human beings depends" (Cannan, Elementary Political Economy, p. 1). "It is too wide a definition to speak of Economics as the science of the material side of human welfare." Economics is "the study of the general methods by which men co-operate to meet their material needs" (Beveridge, Economics as a Liberal Education, Economica, vol. i., p. 3). Economics, according to Professor Pigou, is the study of economic welfare, being defined as "that part of welfare which can be brought directly or indirectly into relation with the measuring rod of money" (Economics of Welfare, 3rd edition, p. 1). The sequel will show how widely the implications of these definitions diverge from one another.

<sup>1</sup> Unsettled Questions of Political Economy, p. 120.

<sup>2</sup> "Nicht die 'sachlichen' Zusammenhänge der 'Dinge' sondern die gedanklichen Zusammenhänge der Probleme legen den Arbeitsgebieten der Wissenschaften zugrunde" (Max Weber, Die Objectivität Sozialwissenschaftlichen und Sozialpolitischen Erkenntnis, Gesammelte Aufsätze zur Wissenschaftslehre, p. 166).

<sup>3</sup> See Cannan, Review of Economic Theory, pp. 1-35, and Schumpeter, Epochen der Methoden- und Dogmengeschichte, pp. 21-38.

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identity of the problems underlying these different enquiries to be detected. At an earlier stage, any attempt to discover the ultimate nature of the science was necessarily doomed to disaster. It would have been waste of time to have attempted it.

But once this stage of unification has been reached not only is it not waste of time to attempt precise delimitation: it is waste of time not to do so. Further elaboration can only take place if the objective is clearly indicated. The problems are no longer suggested by naïve reflection. They are indicated by gaps in the unity of theory, by insufficiencies in its explanatory principles. Unless one has grasped what this unity is, one is apt to go off on false scents. There can be little doubt that one of the greatest dangers which beset the modern economist is preoccupation with the irrelevant-the multiplication of activities having little or no connection with the solution of problems strictly germane to his subject.<sup>1</sup> There can be equally little doubt that, in those centres where questions of this sort are on the way to ultimate settlement, the solution of the central theoretical problems proceeds most rapidly. Moreover, if these solutions are to be fruitfully applied, if we are to understand correctly the bearing of Economic Science on practice, it is essential that we should know exactly the implications and limitations of the generalisations it establishes. It is therefore with an easy conscience that we may advance to what, at first sight, is the extremely academic problem of finding a formula to describe the general subject-matter of Economics.

 $<sup>^1</sup>$  See Chapter II., Section 4, especially the footnote on p. 40, for further elaboration of this point.

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2. The definition of Economics which would probably command most adherents, at any rate in Anglo-Saxon countries, is that which relates it to the study of the causes of material welfare. This element is common to the definitions of Cannan<sup>1</sup> and Marshall,<sup>2</sup> and even Pareto, whose approach<sup>3</sup> in so many ways was so different from that of the two English economists, gives it the sanction of his usage. It is implied, too, in the definition of J. B. Clark.<sup>4</sup>

And, at first sight, it must be admitted, it certainly does appear as if we have here a definition which for practical purposes describes the object of our interest. In ordinary speech there is unquestionably a sense in which the word "economic" is used as equivalent to "material". One has only to reflect upon its signification to the layman in such phrases as "Economic History",<sup>5</sup> or "a conflict between economic and political advantage", to realise the extreme plausibility of this interpretation. No doubt there are some matters falling outside this definition which seem to fall within the scope of Economics, but these may very well seem to be of the order of marginal cases inevitable with every definition.

But the final test of the validity of any such definition is not its apparent harmony with certain usages of everyday speech, but its capacity to describe exactly the ultimate subject-matter of the main

- <sup>2</sup> Principles, 8th edition, p. 1.
- <sup>3</sup> Cours d'Economie Politique, p. 6.

<sup>4</sup> Essentials of Economic Theory, p. 5. See also Philosophy of Wealth, ch. i. In this chapter the difficulties discussed below are explicitly recognised, but, surprisingly enough, instead of this leading to a rejection of the definition, it leads only to a most perverse attempt to change the significance of the word "material".

<sup>5</sup> But see Chapter II. below for an examination of the validity of this interpretation.

<sup>&</sup>lt;sup>1</sup> Wealth, 1st edition, p. 17.

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generalisations of the science.<sup>1</sup> And when we submit the definition in question to this test, it is seen to possess deficiencies which, so far from being marginal and subsidiary, amount to nothing less than a complete failure to exhibit either the scope or the significance of the most central generalisations of all.

Let us take any one of the main divisions of theoretical Economics and examine to what extent it is covered by the definition we are examining. We should all agree, for instance, that a Theory of Wages was an integral part of any system of economic analysis. Can we be content with the assumption that the phenomena with which such a theory has to deal are adequately described as pertaining to the more material side of human welfare?

Wages, in the strict sense of the term, are sums earned by the performance of work at stipulated rates under the supervision of an employer. In the looser sense in which the term is often used in general economic analysis, it stands for labour incomes other than profits. Now it is perfectly true that some wages are the price of work which may be described as conducive to material welfare—the wages of a sewage collector, for instance. But it is equally true that some

<sup>1</sup> In this connection it is perhaps worth while clearing up a confusion which not infrequently occurs in discussions of terminology. It is often urged that scientific definitions of words used both in ordinary language and in scientific analysis should not depart from the usages of everyday speech. No doubt this is a counsel of perfection, but in principle the main contention may be accepted. Appalling confusion is created when a word which is used in one sense in business practice is used in another sense in the analysis of such practice. One has only to think of the difficulties which have been created by such departures in regard to the meaning of the term capital. But it is one thing to follow everyday usage when appropriating a term. It is another thing to contend that everyday speech is the final court of appeal when defining a science. For in this case the significant implication of the word *is* the subject-matter of the generalisations of the science. And it is only by reference to these that the definition can finally be established. Any other procedure would be intolerable.

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wages, the wages of the members of an orchestra, for instance, are paid for work which has not the remotest bearing on material welfare. Yet the one set of services, equally with the other, commands a price and enters into the circle of exchange. The Theory of Wages is as applicable to the explanation of the latter as it is to the explanation of the former. Its elucidations are not limited to wages which are paid for work ministering to the "more material" side of human well-being—whatever that may be.

Nor is the situation saved if we turn from the work for which wages are paid to the things on which wages are spent. It might be urged that it is not because what the wage-earner produces is conducive to other people's material welfare that the Theory of Wages may be subsumed under the description, but because what he gets is conducive to his own. But this does not bear examination for an instant. The wageearner may buy bread with his earnings. But he may buy a seat at the theatre. A theory of wages which ignored all those sums which were paid for "immaterial" services or spent on "immaterial" ends would be intolerable. The circle of exchange would be hopelessly ruptured. The whole process of static analysis could never be employed. It is impossible to conceive significant generalisations about a field thus arbitrarily delimited.

It is improbable that any serious economist has attempted to delimit Wage Theory in this manner, however much he may have attempted thus to delimit the whole body of generalisations of which Wage Theory is a part. But attempts have certainly been made to deny the applicability of economic analysis to the examination of the achievement of

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ends other than material welfare. No less an economist than Professor Cannan has urged that the Political Economy of War is "a contradiction in terms",<sup>1</sup> apparently on the ground that, since Economics is concerned with the causes of material welfare. and since war is not a cause of material welfare, war cannot be part of the subject-matter of Economics. As a moral judgment on the uses to which abstract knowledge should be put. Professor Cannan's strictures may be accepted. But it is abundantly clear, as Professor Cannan's own practice has shown, that, so far from Economics having no light to throw on the successful prosecution of modern warfare, it is highly doubtful whether the organisers of war can possibly do without it. It is a curious paradox that Professor Cannan's pronouncement on this matter should occur in a work which, more than any other published in our language, uses the apparatus of economic analysis to illuminate many of the most urgent and the most intricate problems of a community organised for war.

This habit on the part of modern English economists of describing Economics as concerned with the causes of material welfare, is all the more curious when we reflect upon the unanimity with which they have adopted a non-material definition of "productivity". Adam Smith, it will be remembered, distinguished Unproductive between Productive and Labour. according as the efforts in question did or did not result in the production of a tangible material object. "The labour of some of the most respectable orders in the society is, like that of menial servants, unproductive of any value and does not fix or realise itself in any permanent subject or vendible commodity

<sup>&</sup>lt;sup>1</sup> Cannan, An Economist's Protest, p. 49.

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which endures after that labour is past. . . . The sovereign, for example, with all the officers both of justice and war who serve under him are unproductive labourers. . . . In the same class must be ranked some both of the gravest and most important, and some of the most frivolous professions: churchmen, lawyers, physicians, men of letters of all kinds; players, buffoons, musicians, opera singers, opera dancers, etc. . . . "1 Modern economists, Professor Cannan foremost among them,<sup>2</sup> have rejected this conception of productivity as inadequate.<sup>3</sup> So long as it is the object of demand, whether privately or collectively formulated, the labour of the opera singers and dancers must be regarded as "productive". But productive of what? Of material welfare because it cheers the business man and releases new stores of energy to organise the production of material? That way lies dilettantism and Wortspielerei. It is productive because it is valued, because it has specific importance for various "economic subjects". So far is modern theory from the point of view of Adam Smith and the Physiocrats that the epithet of productive labour is denied even to the production of material objects, if the material objects are not valuable. Indeed, it has gone further than this. Professor Fisher, among others, has demonstrated conclusively<sup>4</sup> that the income from a material object must in the last resort be conceived as an "immaterial"

<sup>1</sup> Wealth of Nations (Cannan's ed.), p. 315.

<sup>2</sup> Theories of Production and Distribution, pp. 18-31; Review of Economic Theory, pp. 49-51.

<sup>3</sup> It is even arguable that the reaction has gone too far. Whatever its demerits, the Smithian classification had a significance for capital theory which in recent times has not always been clearly recognised. See Taussig, *Wages and Capital*, pp. 132-151.

4 The Nature of Capital and Income, ch. vii.

use. From my house equally as from my valet or the services of the opera singer, I derive an income which "perishes in the moment of its production".

But, if this is so, is it not misleading to go on describing Economics as the study of the causes of material welfare? The services of the opera dancer are wealth. Economics deals with the pricing of these services, equally with the pricing of the services of a cook. Whatever Economics is concerned with, it is *not* concerned with the causes of material welfare as such.

The causes which have led to the persistence of this definition are mainly historical in character. It is the last vestige of Physiocratic influence. English economists are not usually interested in questions of scope and method. In nine cases out of ten where this definition occurs, it has probably been taken over quite uncritically from some earlier work. But, in the case of Professor Cannan, its retention is due to more positive causes; and it is instructive to attempt to trace the processes of reasoning which seem to have rendered it plausible to so penetrating and so acute an intellect.

The rationale of any definition is usually to be found in the use which is actually made of it. Professor Cannan develops his definition in close juxtaposition to a discussion of "the Fundamental Conditions of Wealth for Isolated Man and for Society",<sup>1</sup> and it is in connection with this discussion that he actually uses his conception of what is economic and what is not. It is no accident, it may be suggested, that if the approach to economic analysis is made from this point of view, the "materialist" definition, as we may

<sup>&</sup>lt;sup>1</sup> This is the title of ch. ii. of Wealth (1st edition).

call it, has the maximum plausibility. This deserves vindication in some detail.

Professor Cannan commences by contemplating the activities of a man isolated completely from society and enquiring what conditions will determine his wealth—that is to say, his material welfare. In such conditions, a division of activities into "economic" and "non-economic"—activities directed to the increase of material welfare and activities directed to the increase of non-material welfare —has a certain plausibility. If Robinson Crusoe digs potatoes, he is pursuing material or "economic" welfare. If he talks to the parrot, his activities are "non-economic" in character. There is a difficulty here to which we must return later, but it is clear *prima facie* that, in this context, the distinction is not ridiculous.

But let us suppose Crusoe is rescued and, coming home, goes on the stage and talks to the parrot for a living. Surely in such conditions these conversations have an economic aspect. Whether he spends his earnings on potatoes or philosophy, Crusoe's getting and spending are capable of being exhibited in terms of the fundamental economic categories.

Professor Cannan does not pause to ask whether his distinction is very helpful in the analysis of an exchange economy—though, after all, it is here that economic generalisations have the greatest practical utility. Instead, he proceeds forthwith to consider the "fundamental conditions of wealth" for society considered as a whole. And here again his definition becomes plausible: once more the aggregate of social activities can be sorted out into the twofold classification it implies. Some activities are devoted to the

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pursuit of material welfare: some are not. We think, for instance, of the executive of a communist society, deciding to spend so much labour-time on the provision of bread, so much on the provision of circuses.

But even here and in the earlier case of the Crusoe Economy, the procedure is open to what is surely a crushing objection. Let us accept Professor Cannan's use of the terms "economic" and "non-economic" as being equivalent to conducive to material and nonmaterial welfare respectively. Then we may say with him that the wealth of society will be greater the greater proportion of time which is devoted to material ends, the less the proportion which is devoted to immaterial ends. We may say this. But we must also admit that, using the word "economic" in a perfectly normal sense, there still remains an economic problem, both for society and for the individual, of choosing between these two kinds of activity-a problem of how, given the relative valuations of product and leisure and the opportunities of production, the fixed supply of twenty-four hours in the day is to be divided between them. There is still an economic problem of deciding between the "economic" and the "non-economic". One of the main problems of the Theory of Production lies half outside Professor Cannan's definition.

Is not this in itself a sufficient argument for its abandonment?<sup>1</sup>

<sup>1</sup> There are other quarrels which we might pick with this particular definition. As Dr. Benham has pointed out (*The Concept of Economic Welfare* [*Economica*, June, 1930]), the whole concept of welfare is suspect as the subject-matter of a scientific study. From the philosophical point of view, the term "material welfare" is a very odd construction. "The material causes of welfare" might be admitted. But "material welfare" seems to involve a division of states of mind which are essentially unitary. For the purposes of this chapter, however, it has seemed better to ignore these deficiencies and to concentrate on the main question, namely, whether the definition can in any way describe the contents of which it is intended to serve as a label.

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3. But where, then, are we to turn? The position is by no means hopeless. Our critical examination of the "materialist" definition has brought us to a point from which it is possible to proceed forthwith to formulate a definition which shall be immune from all these strictures.

Let us turn back to the simplest case in which we found Professor Cannan's terminology inappropriate—the case of isolated man dividing his time between the production of real income and the enjoyment of leisure. We have just seen that such a division may legitimately be said to have an economic aspect. Wherein does this aspect consist?

The answer is to be found in the formulation of the exact conditions which make such division necessary. They are three. In the first place, isolated man wants both real income and leisure. Secondly, he has not enough of either fully to satisfy his want of each. Thirdly, he can spend his time in augmenting his real income or he can spend it in taking more leisure. Therefore he has to choose. He has to economise. Whether he chooses with deliberation or not, his behaviour has the form of choice. The disposition of his time and his resources has a relationship to his system of wants. It has an economic aspect.

This example is typical of the whole field of Economic Studies. From the point of view of the economist, the conditions of human existence exhibit three fundamental characteristics. The ends<sup>1</sup> are various. The time and the means for achieving

<sup>&</sup>lt;sup>1</sup> On the sense in which "end" is to be understood to be formulated, there are further elucidations in the next chapter. From our point of view here it is simply to be taken as an objective of conduct. No indeterministic view of be haviour is intended to be implied.

these ends are at once limited and capable of alternative application. Here we are, sentient creatures with bundles of desires and aspirations, with masses of instinctive tendencies all urging us in different ways to action. But the time in which these tendencies can be expressed is limited. The external world does not offer full opportunities for their complete achievement. Life is short. Nature is niggardly. Our fellows have other objectives. Yet we can use our lives for doing different things, our materials and the services of others for achieving different objectives.

Now by itself the multiplicity of ends has no necessary interest for the economist. If I want to do two things, and I have ample time and ample means with which to do them, and I do not want the time or the means for anything else, then my conduct assumes none of those forms which are the subject of economic science. Nirvana is not necessarily single bliss. It is merely the complete satisfaction of all requirements.

Nor is the mere limitation of means by itself sufficient to give rise to economic phenomena. If means of satisfaction have no alternative use, then they may be scarce, but they cannot be economised. The Manna which fell from heaven may have been scarce, but, if it was impossible to exchange it for something else or to postpone its use, it was not the subject of any activity with an economic aspect.

But when time and the means for achieving ends are limited *and* capable of alternative application, then behaviour necessarily assumes the form of choice. Every act which involves time and scarce means for the achievement of one end involves the relinquishment of their use for the achievement of another. It has an economic aspect.<sup>1</sup> If I want bread and sleep, and in the time at my disposal I cannot have all I want of both, then some part of my wants of bread and sleep must go unsatisfied. If, in a limited lifetime, I would wish to be both a philosopher and a mathematician, but my rate of acquisition of knowledge is such that I cannot do both completely, then some part of my wish for philosophical or mathematical competence or both must be relinquished.

Now not all the means for achieving human ends are limited. There are things in the external world which are present in such comparative abundance that the use of particular units for one thing does not involve going without other units for others. The air which we breathe, for instance, is such a "free" commodity. Save in very special circumstances, the fact that we need air imposes no sacrifice of time or resources. The loss of one cubic foot of air implies no sacrifice of alternatives. Units of air have no specific significance for conduct. And it is conceivable that living creatures may exist whose "ends" are so limited that all goods for them are "free" goods, that no goods have specific significance.

But, in general, human activity with its multiplicity of objectives has not this independence of time or specific resources. The time at our disposal is limited. There are only twenty-four hours in the day. We have to choose between the different uses to which they may be put.<sup>2</sup> The services which others put at our disposal are limited. The material

<sup>&</sup>lt;sup>1</sup> Cp. Schönfield, Grenznutzen und Wirtschaftsrechnung, p. 1; Hans Mayer, Untersuchungen zu dem Grundgesetze der Wirtschaftlichen Wertrechnung (Zeitschrift für Volkswirtschaft und Sozialpolitik, Bd. 2, p. 123).

<sup>&</sup>lt;sup>2</sup> See Mises, Die Gemeinwirtschaft, p. 98; also Soziologie und Geschichte (Archiv für Sozialwissenschaft und Sozialpolitik, Bd. 61, Heft 3, especially pp. 471-484).

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means of achieving ends are limited. We have been turned out of Paradise. We have neither eternal life nor unlimited means of gratification. Everywhere we turn, if we choose one thing we must relinquish others which, in different circumstances, we would wish not to have relinquished. Scarcity of means to satisfy given ends is an almost ubiquitous condition of human behaviour.

Here, then, is the unity of subject of Economic Science. the forms assumed by human behaviour in disposing of scarce means. The examples we have discussed already harmonise perfectly with this conception. Both the services of cooks and the services of opera dancers are limited in relation to demand and can be put to alternative uses. The Theory of Wages in its entirety is covered by our present definition. So, too, is the Political Economy of War. The waging of war necessarily involves the withdrawal of scarce goods and services from other uses if it is to be satisfactorily achieved. It has therefore an economic aspect. The economist studies the disposal of scarce means. He is interested in the wav different degrees of scarcity of different goods give rise to different ratios of valuation between them, and he is interested in the way in which changes in conditions of scarcity, whether coming from changes in ends or changes in means-from the demand side or the supply side-affect these ratios. Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Cp. Menger, Grundsätze der Volkswirtschaftslehre, 1te aufl., pp. 51-70; Mises, Die Gemeinwirtschaft, pp. 98 seq.; Fetter, Economic Principles, ch. i.; Strigl, Die Ökonomischen Katagorien und die Organisation der Wirtschaft, passim; Mayer, op. cit.

4. It is important at once to notice certain implications of this conception. The conception we have rejected, the conception of Economics as the study of the causes of material welfare, was what may be called a *classificatory* conception. It marks off certain kinds of human behaviour, behaviour directed to the procuring of material welfare, and designates these as the subject-matter of Economics. Other kinds of conduct lie outside the scope of its investigations. The conception we have adopted may be described as analytical. It does not attempt to pick out certain kinds of behaviour, but focuses attention on a particular *aspect* of behaviour, the form imposed by the influence of scarcity.<sup>1</sup> It follows from this, therefore, that in so far as it offers this aspect, any kind of human behaviour falls within the scope of Economic Generalisations. We do not say that the production of potatoes is economic activity and the production of philosophy is not. We say rather that, in so far as either kind of activity involves the relinquishment of other desired alternatives, it has its economic aspect. There are no limitations on the subject-matter of Economic Science save this.

Certain writers, however, while rejecting the conception of Economics as concerned with material welfare, have sought to impose on its scope a restriction of another nature: They have urged that the behaviour with which Economics is concerned is essentially a certain type of social behaviour, the

<sup>1</sup> On the distinction between analytical and classificatory definitions, see Irving Fisher, Senses of Capital (Economic Journal, vol. vii., p. 213). It is interesting to observe that the change in the conception of Economics implied by our definition is similar to the change in the conception of capital implied in Professor Fisher's definition. Adam Smith defined capital as a kind of wealth. Professor Fisher would have us regard it as an aspect of wealth.

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behaviour implied by the institutions of the Individualist Exchange Economy. On this view, that kind of behaviour which is not specifically social in this definite sense is not the subject-matter of Economics. Professor Amonn in particular has devoted almost infinite pains to elaborating this conception.<sup>1</sup>

Now it may be freely admitted that, within the wide field of our definition, the attention of economists is focussed chiefly on the complications of the Exchange Economy. The reason for this is one of interest. The activities of isolated man, equally with the activities of the exchange economy, are subject to the limitations we are contemplating. But, from the point of view of isolated man, economic analysis is unnecessary. The elements of the problem are given to unaided reflection. Examination of the behaviour of a Crusoe may be immensely illuminating as an aid to more advanced studies. But, from the point of view of Crusoe, it is obviously extra-marginal. So too in the case of a "closed" communistic society. Again, from the point of view of the economist, the comparison of the phenomena of such a society with those of the exchange economy may be very illuminating. But from the point of view of the members of the executive, the generalisations of Economics would be uninteresting. Their position would be analogous to Crusoe's. For them the economic problem would be merely whether to apply productive power to this or to that. Now, as Professor Mises has shown, given central ownership and control of the means of

<sup>&</sup>lt;sup>1</sup> See his Objekt und Grundbegriffe der theoretischen Nationalokonomie. The criticisms of Schumpeter and Strigl on pp. 110-125 and pp. 155-156 are particularly important from this point of view. With the very greatest respect for Professor Amonn's exhaustive analysis, I cannot resist the impression that he is inclined rather to magnify the degree of his divergence from the attitude of these two authors.

production, the registering of individual pulls and resistances by a mechanism of prices and costs is excluded by definition. It follows therefore that the decisions of the executive must necessarily be "arbitrary".<sup>1</sup> That is to say, they must be based on *its* valuations—not on the valuations of consumers and producers. This at once simplifies the form of choice. Without the guidance of a price system, the organisation of production must depend on the valuations of the final organiser, just as the organisation of a patriarchal estate unconnected with a money economy must depend on the valuations of the patriarch.

But in the exchange economy the position is much more complicated. The implications of individual decisions reach beyond the repercussions on the individual. One may realise completely the implications for oneself of a decision to spend money in this way rather than in that way. But it is not so easy to trace the effects of this decision on the whole complex of "scarcity relationships"-on wages, on profits, on prices, on rates of capitalisation, and the organisation of production. On the contrary, the utmost effort of abstract thought is required to devise generalisations which enable us to grasp them. For this reason economic analysis has most utility in the exchange economy. It is unnecessary in the isolated economy. It is debarred from any but the simplest generalisations by the very raison d'être of a communist society. But where independent initiative in social relation-

<sup>1</sup> See Mises, Die Gemeinwirtschaft, pp. 94-138. In his Die Lehren des Marxismus im Lichte der russischen Revolution and Planwirtschaft und Marktwirtschaft in der Sowjet Union (Der deutsche Volkswirt Jahrg., 1931, No. 32, pp. 1073-1074), Professor Boris Brutzkus has well shown the way in which this difficulty has been exemplified in the various phases of the Russian experiment. I

ships is permitted to the individual, there economic analysis comes into its own.

But it is one thing to contend that economic analysis has most interest and utility in an exchange economy. It is another to contend that its subjectmatter is *limited* to such phenomena. The unjustifiability of this latter contention may be shown conclusively by two considerations. In the first place, it is clear that behaviour outside the exchange economy is conditioned by the same limitation of means in relation to ends as behaviour within the economy, and is capable of being subsumed under the same fundamental categories.<sup>1</sup> The generalisations of the Theory of Value are as applicable to the behaviour of isolated man or the executive authority of a communist society, as to the behaviour of man in an exchange economyeven if they are not so illuminating in such contexts. The exchange relationship is a technical incident, a technical incident indeed which gives rise to nearly all the interesting complications, but still, for all that, subsidiary to the main fact of scarcity.

In the second place, it is clear that the phenomena of the exchange economy itself can only be explained by *going behind* such relationships and invoking the operation of those laws of choice which are best seen when contemplating the behaviour of the isolated individual.<sup>2</sup> Professor Amonn seems willing to admit

<sup>1</sup> See Strigl, op. cit., pp. 23-28.

<sup>2</sup> Professor Cassel's dismissal of Crusoe Economics (Fundamental Thoughts, p. 27) seems singularly unfortunate since, while the construction of the collectivist state which he favours, is intended to perform exactly the same function, in fact, it suggests possibilities of economic calculation which would not be available to the executive of such a society. Where there is no market for producers' goods, there can be no cost computations based on individual valuations. It is a mistake to suppose that the mere pricing of consumers' goods affords a basis for economic calculation. (See Halm, *Die Konkurrenz*, pp. 34-63.) Moreover, it is only when contemplating the conditions of isolated man that the importance of the alternative

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that such a system of pure Economics may be useful as an auxiliary to Economic Science, but he precludes himself from making it the basis of the main system by postulating that the subject-matter of Economics must be defined in terms of the problems discussed by Ricardo. The view that a definition must describe an existing body of knowledge and not lay down arbitrary limits is admirable. But, it may legitimately be asked, why stop at Ricardo?<sup>1</sup> Is it not clear that the imperfections of the Ricardian system were due to just this circumstance that it stopped at the valuations of the market and did not press through to the valuations of the individual? Surely it is the great achievement of the modern Theory of Value to have surmounted just this barrier?<sup>2</sup>

applicability of scarce means, which was emphasised above, leaps clearly to the eye. In a social economy of any kind, the mere multiplicity of economic subjects leads one to overlook the possibility of the existence of scarce goods with no alternative uses.

<sup>1</sup> Op. cit., p. 397. On pp. 119-120 Professor Amonn seems to go a long way towards admitting the point made above that the question under dispute relates to the interest, rather than to the limit, of the subjectmatter. "Die Nationalökonomie *interessiert* (my italics) am Kaufe nicht die Bedeutung die das einzelne kaufende oder verkaufende Individuum unter seiner individualistisch praktischen Gesichtpunkte diesen Wirtschaftsubjekt beilegt. . . Erst durch die Setzung einer bestimmten sozialen Bedingtheit und unter dem Gesichtspunkte diesen sozialen Bedingtheit erlangt die Güterquantitätenveränderung jene so besonder Kompliziertheit deren Analyse Aufgabe der theoretischen Nationalőkonomie ist."

<sup>2</sup> The objections outlined above to the definition suggested by Professor Amonn should be sufficient to indicate the nature of the objections to those definitions which run in terms of phenomena from the standpoint of price (Davenport), susceptibility to the "measuring rod of money" (Pigou), or the "science of exchange" (Landry, etc.). Professor Schumpeter, in his Wesen und Hauptinhalt der theoretischen Nationalókonomie, has attempted with never to be forgotten subtlety to vindicate the latter definition by demonstrating that it is possible to conceive all the fundamental aspects of behaviour germane to Economic Science as having the form of exchange. That this is correct and that it embodies a truth fundamental to the proper understanding of equilibrium theory may be readily admitted. But it is one thing to generalise the notion of exchange as a construction. It is another to use it in this sense as a criterion. That it can function in this way is not disputed. But that it throws the maximum light on the ultimate nature of our subject-matter is surely open to question. T

5. Finally, we may return to the definition we rejected and examine how it compares with the definition we have now chosen.

At first sight, it is possible to underestimate the divergence between the two definitions. The one regards the subject-matter of economics as human behaviour conceived as a relationship between ends and means, the other as the causes of material welfare. Scarcity of means and the causes of material welfare—are these not more or less the same thing ?

Such a contention rests upon a very crude misconception. It is true that the scarcity of materials is one of the limitations of conduct. But the scarcity of our own time and the services of others is just as important. The scarcity of the services of the schoolmaster and the sewage man have each their economic aspect. Only by saying that services are material vibrations or the like can one stretch the definition to cover the whole field. But this is not only perverse, it is also misleading. In this form the definition may cover the field, but it does not describe it. For it is not the *materiality* of even material means of gratification which gives them their status as economic goods; it is their relation to valuations. It is their form rather than their substance which is significant. The "Materialist" conception of economics therefore misrepresents the science as we know it. But the practice of those who have adopted it fits in perfectly with our definition. There is no important generalisation in the whole range of Professor Cannan's system which is incompatible with the definition we have chosen.

Moreover, the very example which Professor Cannan selects to illustrate his definition fits much

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better into our framework than it does into his. "Economists", he says, "would agree that 'Did Bacon write Shakespeare?' was not an economic question, and that the satisfaction which believers in the cryptogram would feel if it were universally accepted would not be an economic satisfaction. . . On the other hand, they would agree that the controversy would have an economic side if copyright were perpetual and the descendants of Bacon and Shakespeare were disputing the ownership of the plays."<sup>1</sup> Exactly. But why? Because the ownership of the copyright involves material welfare? But the proceeds may all go to missionary societies. Surely the question has an economic aspect simply and solely because the copyright laws supposed would make the use of the plays scarce in relation to the demand for their use, and would in turn provide their owners with command over scarce means of gratification which otherwise would be differently distributed.

<sup>1</sup> Wealth (1st edition), ch. i.