THE philosophers of the eighteenth century created a study of the social order in its economic aspect. The fruit of their researches was developed in the nineteenth century under the name of Political Economy, which was included among the sciences. Precisely to what extent, if any, there is an 'economic science' is a topic worthy of examination; and by the publication of M. Vialatoux's Philosophie Economique many suggestive lines of thought are presented.

The mental background of the founders of economics—Stewart, Petty, Locke, Adam Smith in England, and the Physiocrats in France—was the work principally of Bacon and Descartes. The former asserted the value of inductive logic in the formation of sciences, thereby following Aristotle (whose work it was his ambition to consummate); he formulated a new abstraction of the sciences, based on the method of knowing, not on the object known (thereby deserting Aristotle and founding the peculiar heresy of English philosophy).

Descartes and Galileo habituated men to identify science with exactitude, and exactitude with mathematics, so that 'scientific,' when the word was coined, meant 'statistically measurable,' and not 'pertaining to essences.' What could not be stated numerically came to be underrated in the order of knowledge itself.

This fallacy needs first to be disposed of. Mathematics, the science of quantitative being, is a most noble pursuit of man. Physics, the science of the nature of the material and changeable world, is likewise a worthy science. But mathematical physics, or any science in so far as it is mathematical, is in that precise degree unscientific, for it considers its subject under that aspect which is, in the first place, not of itself intelligible—matter—and in the second place not peculiar to it—the generic attributes, not the

¹ Paris : Desclée de Brouwer.

specific. The what and why of gravity is not really known by the assertion of a mathematical formula founded on the weight and distance of the bodies concerned: that merely relates gravity in one case to gravity in another case. It is a relative, not an absolute, science. But to men thus dominated by a concept of a natural measurable mechanical universe, the existence of millions of human beings regularly seeking their enrichment by hook or by crook offered the temptation to interpret economic phenomena on mathematical principles. They held that what was natural was universal, and therefore scientifically knowable. In addition, they deemed what was natural to be right, and the conclusions of their discoveries to be principles of action—the cause, philosophically, of most of the social evils of the twentieth century.

The early economists made all calculation by reference to 'economic man'; that is, man's pursuit of gain, pleasure and leisure was an absolute and not a relative assumption in their thought. Before analysing this fallacy, it is but just to consider how very little part conscience and law entered into the economic life of England and France at that epoch, and how universally the theory of 'economic man' was realised in fact. Those whose consciences might otherwise have hindered them from doing as most men did felt justified in self-defence in practising the devices of the unscrupulous: no relic of principle from a previous era had vigour in society.

'Economic man' was, accordingly, the subject of the science in question. Now, it is necessary to make abstractions and to consider aspects in all sciences and for all knowledge. It is possible to separate in idea the physiological facts common to all men, or the psychological. Either body of truths is the material of a science. It is possible to consider in the abstract any quality inhering in innumerable particular things, and to examine its cause and its effects. There is no reason why the appetitive movement of the human animal to the control of material goods should not be abstracted from the other facets of human

nature. This the economists did. They considered this appetite as the principle on which the economic life of a community reposed. But there was a fallacy in their process of argument. Let us see where they were in error.

Sources of wealth are land, labour and capital: and acquired, it is received in prices, wages, rent and interest. According to the economists, the causal nexus of the sources and the acquisition was either a maximist principle, like the law of rent, or an equilibrium of forces all economic, like the ambition of labourers to live and employers to pay as low wages as possible, which determined the 'iron law of wages.'

But an 'economic law,' such as the exchange value of some commodity, is in practice due to several causes, of which some are not found in 'economic man': and an exception once made, the theory of his causal nature is invalid, and the hypothesis of his existence is useless.

The intervention of moral or legal principle, or mere indifference, is a factor which changes the nature of the whole subject under consideration. Indeed, the ultimate determining influence of all economic law is indifference to gain, for any fixity in price is due to the radical preference of men for a certain profit rather than a maximum profit, which could be achieved only by private bargaining in each particular case. The laws of economic activity are thus due to an equilibrium of economic appetite and noneconomic. It would be as reasonable to assert that war is due to man as a fighting animal, and the laws of war to his not being entirely a fighting animal—quite reasonable, but hardly a matter of scientific analysis. But economic man is a necessary of a true science of economics. Yet he has been disposed of since 1870, and the science still flourishes. Two courses have been followed. The first is the acceptance of economic man as a true analysis of human nature, and the construction of a philosophic system to explain away every contradictory fact or hypothesis. This is the philosophy of Marxism and, radically, of communism. Man is an acquisitive animal, says the Marxist

materialist: all motives not professedly economic in human activity are ultimately so, and should be explicitly so—religion, culture, class distinction, are mere diseases in a society dominated by the appetite of the bourgeoisie for possession. Only matter is real: mind is an illusion, Hegelian dialectic explains away the principles of thought, and, consistent with its own inconsistency, this school of bastard philosophy wrought the Bolshevik Revolution firmly believing in the inevitability of the communist state.

Modern economics, emancipated from the pseudoscience of the false abstraction 'economic man,' was created in the eighteen-seventies by Alfred Marshall and Stanley Jevons, following Cournot in France. The former looked upon economics as a co-ordination of quasi-physical phenomena arranged with a view to sociological and ethical ends. He used mathematical formulae to state and to interpret his data, as the only valid expression of a material by nature so indeterminate. Jevons brought his acute mind to bear on the relation of a scientific analysis to the understanding of an infinite diversity of singulars, and experimented in the use of calculus and other mathematical sciences to solve economic relations. Perhaps economics deserves a status among the sciences as a branch of mathematics, which is now its place among economists. Let us consider the case.

The problem is to construct a statement of universal validity on the results of the interplay of mutually interdependent causes, some of which are intrinsically incommensurate with others. That is to say, there is required a calculus in which all the terms are functions of one another. Thus, demand is the cause of supply. But supply causes part of the demand. Cost of production causes price, but anticipated price determines in part the cost of production, and itself depends in some degree on demand—and so forth. Variation, moreover, is never regular, although over an average a general formula may have validity, which it is the precise purpose of the mathematician to render intelligible. But the more universal the state-

ment, and the more it possesses scientific validity, the less it represents economic facts. The more co-ordinated causes are introduced into the formula, the more it will represent a particular and not a universal statement. It is an attempt to reduce the concrete to the abstract: in practice, the concrete, though governed by normal regularity, is also the particular, and is never without differentiations which render universalisation impossible. The economic laws of a national monopoly differ from those of a world monopoly, and that of a world monopoly in one commodity from that in another, setting aside the complex condition of Victorian England with its thousands of joint stock companies.

Moreover, mathematics is concerned only with what is, not with efficient or final causes, which are integral to a true interpretation of economic 'laws.' Hence, mathematical economics is incomplete save as a series of statistical formulations valid as far as they go.

Hence the conclusion stands that the modern development has created a science formally mathematical and materially economic: a symbolic expression of a complexus of increases and decreases in variable quantities. In other words, it is not a science at all, save in so far as it is not economic.

That economics is a branch of ethical science is urged by M. Vialatoux in his *Philosophie Economique*, a notable contribution to that synthesis of the sciences of the modern era, which is the greatest intellectual need of the present generation. It is obvious that there is, at least potentially, a moral science of economics constituted by the body of principles which determine what is just in the production, consumption and exchange of wealth. But the elaboration of such a science in the face of economic order which has so far been scientifically considered only as a physical phenomenon, is beset with difficulties.

The first principle is one of St. Thomas Aquinas: that commercial operations are just if they are ordered to the common good, and unjust if they are not. But it is manifest that the first obligation of each man is to keep himself and

his family. Not only does nature prompt him to this (as the classical economists rightly said), but justice to the community demands that he should do so, for otherwise his maintenance would be a burden on others. A second principle enters at this point: the increase of wealth is normally due to a desire for a higher status in society, which any man may legitimately seek, but not, clearly, to the detriment of society as a whole. Moreover a common agreement to help one another by helping oneself exists among all men, and is intensified by interest common to a group. Every profession is the germ of a conspiracy against the general public.

In consequence, moral principle in economic life is dependent on the relative claims on the individual of the necessities of livelihood, those of his status, the obligations he owes to his profession, those he owes to the community, and those due, in exceptional cases, to the particular person he is dealing with (as when a lawyer gives free advice to a poor man). No man can be expected to know, or to go out of his way to discover, the needs of another in his negotiations, nor normally to forego his own. In the less complex societies of the past, hereditary guilds, price-fixing, and sumptuary legislation curbed the avarice of the trader. A vast development of the economic application of ethics is required to meet modern conditions—based on the same principles, and perhaps returning to the older practice, as in the Fascist state. But as a problem in casuistry, the intellectual process from abstract to concrete in the science of what ought to be is nearly as complex as the reverse process from concrete to abstract in the pseudo-science of what is.

A pseudo-science, but not in a merely pejorative sense. M. Vialatoux points out that it is not licit to constitute one science (Political Economy) out of the material of another (Ethics). It is undoubtedly true that when the actual order is divergent from the ideal, the former cannot be strictly scientific if the latter is, in the sense of essential to the nature of its subject-matter. But when one order of

nature is neglected, another and lower order comes into operation, with laws of its own. As a cancer has a vegetative life of its own inferior in perfection to the life of a human body, so there is a body of principle governing the life of a community dominated by the concept of free competition and the absence of moral restraint in economic affairs.

Trade cycles recurred regularly in the nineteenth century: monopolies invariably result in high prices, profiteering and the rise of 'piratical' industry on a small scale to undersell the monopolist, and so forth. Economic phenomena are as much subject to scientific systematisation as the political phenomena of ancient Greece, which was the material of the first historical or pseudo-science, the *Politics* of Aristotle. An accurate corpus of generalisations is a useful branch of knowledge, and to question its precise claim to be called a science is pedantic in the face of universal custom (so long as the name is recognised to be analogical, in so far as true sciences are of necessary being and its causation).

The radical error in treating economics as an exact science lies in its nature. Its laws, or generalisations, are the result of an equilibrium of forces in different orders, some mutually opposed, all determined and all determining in different degrees. As the causes are not commensurate, so the results are accidental. In so far as the latter can be studied scientifically, they are, as we have seen, material for mathematics: in so far as the causes can be reduced to order, they are either problems for logicians or material for social psychologists. There is a point at which the human mind concentrated on the acquisition of a created good, reacts to extraneous causes with little or no intervention of will, and economic phenomena, considered as the product of an avaricious civilisation, can serve as the ground of a department of experimental and even animal, The tradition of the schoolmen can make good use of economics, but only as a maid-of-all-work. As a science, it has no real basis; nor is this surprising, for the parent philosophy of a mathematico-physical universe has

melted away under the fire of Planck and Einstein, and has left European thought in need of a comprehensive synthesis which only a return to its most ancient tradition can supply.

SILVESTER HUMPHRIES, O.P.

NOTHING UNDENIED REMAINS

NOTHING, now nothing undenied remains
To these Thy poor, O, Christ. No right is left
Them, see, no skill, no tool. These hands were deft
In gnarly digging, labour-hard with pains
Of wrench and weather—idle now. Who gains
Thereby? Who sees child-birth in mildew-cleft
Dirty-brick, únmoved, hovel-horror, O, God, bereft
Of bowels, pity is, of all that, all in man-race he disdains!

But worse yet—pride, Hell-pride, Death-pride, strung Past pitch of mercy, scorns them, slaves them, law lays Down to banish being in them, purpose in them, offspring in them, stays

Humanity to fill his charnel-house, seeks ways Proud power build prouder, scorned wretches eunuchs make—these shame our days.

Pride's princes, pity, oh, pity of it, Christ! remain unhung!

BERNARD KELLY