

# STATISTICAL AND SOCIAL INQUIRY SOCIETY OF IRELAND.

## ECONOMIC RELATIVITY.

Opening Address of the President,  
PROFESSOR GEORGE O'BRIEN.

*Delivered on Friday, 16th October, 1942.*

I wish to take this, the earliest, opportunity of thanking the members of the Society for the great honour they have done me in electing me to the Presidency. I am deeply conscious of the high standard of service rendered to the Society by its former Presidents, not least by its retiring President, Mr. Stanley Lyon, who has worthily upheld the best traditions of a long line of distinguished predecessors. I feel very incompetent to continue such an illustrious succession. If the sole purpose of the work of the Society were statistical investigation, I would be completely unqualified to preside over its meetings. It is possible, however, to slip in under the second part of our title. In the field of social inquiry, economics plays an important, although by no means an exclusive, part. Our Society, among its other manifold useful functions, serves as a meeting place for those engaged in the different departments of social inquiry, where we can exchange our experiences, compare our researches and collate our results. It may not prove out of place, therefore, to utilize this occasion to attempt to explain to my fellow-workers in the social sciences some of the peculiar difficulties under which the economist has always laboured and is doomed to continue to labour. Such an explanation may do something to reduce the misunderstandings which are perpetually arising between economists and their critics.

The scope and purpose of economic science are widely misunderstood and misrepresented. Economists are frequently blamed for not performing functions which they have never professed to perform or have expressly disclaimed. No economist, for example, has ever pretended to know the cure for the manifold evils of societies labouring under a scarcity of natural resources and often afflicted with political, social and moral evil. Indeed, one reason for the unpopularity, not to say disrepute, from which economists suffer is that they are constantly engaged on exposing facile and attractive proposals for alleviating social maladies. The medical profession is not held in low esteem because of its exposure of nostrums, panaceas and quacks. Nor is the faculty censured because of the prevalence of illness in the community. The absurdity of blaming his doctor for the prolonged illness of the confirmed drunkard would be admitted by all. The spectacle of good advice being habitually ignored by his patients arouses a feeling of sympathy for the physician whose skill is frustrated by their bad habits. Every patient finally dies, but nobody thinks less of the medical profession because it fails to prolong life indefinitely. Economists, who may be regarded as the medical advisers of society, are reprobated because of the ill-health of their patients, even when that ill-health is the result of a weak constitution, of dissipation, of debauchery and indulgence in every debilitating and noxious vice. The problems of the medical doctor are ultimately solved by the death of his patients.

There is an end to the most obstinate malady. No such simple and final solution of his difficulties is available for the social physician, whose patients are immortal. What a relief it would have been to many of the world's economists if some of their worst cases, for example, Germany in 1924 or the United States in 1932, had quietly breathed their last! How many problems would have been avoided, how many deadlocks resolved!

The widespread misunderstanding of the scope and purpose of economic science is partly founded on the belief that economic laws pretend to possess universal validity. Professor Edgeworth stated that "the treating as constant what is variable is the source of most of the fallacies in political economy." Economists and, more frequently, their popular interpreters and critics have claimed universal validity for principles which are true only in the circumstances in which they were originally propounded. Professor Morgenstern draws attention to the fact that it is the general public rather than the economists—although they are far from blameless—who have been guilty of this error. "The majority of economists seek to emphasize the finality of economic doctrines—their own doctrines, it should be noted. It is, however, strange that the general public, and among them those who are most sharply contemptuous of theory, namely the majority of business men, demand that theory should be of permanent validity. The public demands more or less explicitly that economics should have already fully explained beforehand everything that can possibly happen. Should some event contradict or even appear to contradict an economic proposition (usually in its popular formulation) or more often an economic sophistry or a misrepresentation of an economic theorem, the whole science is immediately 'done for' and is held to have given a new proof of its uselessness. It is therefore especially necessary to acknowledge quite frankly that the development of economic analysis often leads the scientist to present at a later date a different solution of a problem from that previously available. This does not mean that he is on that account either fickle or ignorant."<sup>1</sup> The physical sciences are in a state of constant revision in the light of expanding knowledge. No scientist would be so foolhardy as to claim finality for his doctrines. On the contrary, it is the mark of a good scientist that he is constantly awake to the need of accommodating his conclusions to the results of new research. Professor J. B. S. Haldane, for example, states that: "Some discarded theories were substantially true when they were first put forward and ceased to be true later. In the nineteenth century chemists said that atoms could not be split. At a later date Rutherford and his pupils split a number of atoms. The old theory ceased to be true because of these changes in technique."<sup>2</sup> M. Jacques Barzun makes the statement that: "Science as a Delphic oracle does not exist. At any one time there are only scientists who agree and disagree. The march of science is not an orderly army on parade, but rather a land rush for the free spaces ahead. This means a degree of anarchy, less perhaps in science than in other fields, but still anarchy."<sup>3</sup>

If disorder is encountered in the physical sciences, it is equally to be met with in the social sciences which deal with the actions and reactions of men. The so-called economic laws are nothing more than generalizations regarding the probable behaviour of individuals or

<sup>1</sup> *Limits of Economics*, p. 12.

<sup>2</sup> *Science and Everyday Life*, p. 282.

<sup>3</sup> *Darwin, Marx, Wagner*, p. 368.

groups, allocating their resources of money, time and energy in a manner calculated to secure the maximum possible utility. The pattern of such allocations is determined by the valuations placed by their owners on alternative types of satisfaction. These valuations, in the light of which actions are guided and decisions taken, are part of the *data* which the economist must accept as given. They are constantly changing; and economic laws which ignore such changes will be as untrue as physical laws which ignore the latest techniques and discoveries. The complaint has frequently been made that the *data* used in constructing economic laws are incorrect, that the economist's hypotheses are unreal and artificial, that deductive reasoning, which is admitted to be logically perfect, is based on false premises and leads, therefore, to untrue conclusions. The "economic man" is alleged to be a fabrication woven out of the economist's own imagination. In so far as some economists appear to have assumed the existence of an unchanging, uniform and universal "economic man," they have provided evidence in support of these charges. Such assumptions are, however, the exception rather than the rule in modern economic discussion. There is a widespread and increasing recognition that the concept of the "economic man" is purely relative and that it is constantly changing. Economic laws are relative, not absolute. Every truth has its limits and may, if taken out of its limits, become a source of error. The greatest caution must be taken against an unwarranted degree of generalization.

In the social sciences man is observing the behaviour of other men. In some respects this renders observation more accurate. Men know more about each other than they do about inanimate matter. As Professor Bowley justly observes, the lack of experimentation in the social sciences is compensated for by the ability to cross-examine the subjects of investigation which is a method unknown to the natural scientist.<sup>4</sup> A good deal of preliminary induction can be saved. On the other hand, there is a danger that too much will be assumed. The observer is himself part of the universe which he is observing and detached objective observation is exceedingly difficult. M. Jacques Rueff states that, "the difficulty of observing laws of political economy is that we are ourselves one of the elements combining to bring about the appearance whose advent they foretell. We blend the subjective notions of which we are aware with the phenomena which we observe. We are like a molecule seeking to comprehend the properties of gases."<sup>5</sup> The economist is in danger of generalizing from his own experience and of assuming that other men's reactions will be the same as his own. "Each man," stated Carlyle, "expands his own handbreadth of observation to the limits of the general whole." The economist may select major premises which help to lead to conclusions of which he approves. Hypotheses calculated to support agreeable solutions may be evolved out of his inner consciousness. It has been said that, "there will hardly be found any social theory completely free from axioms induced by the personal sympathies of the author."<sup>5a</sup> It is always necessary to guard against personal bias. This is admirably put by Mrs. Sidney Webb:—"The sociologist, unlike the physicist, chemist and biologist, is in a quite unique manner the creature of his environment. Birth and parentage, the mental atmosphere of class and creed in which he is bred, the

<sup>4</sup> *Measurement of Social Phenomena*, p. 9.

<sup>5</sup> *From the Physical to the Social Sciences*, p. 104.

<sup>5a</sup> Borkenau, *Pareto*, p. 165.

characteristics and attainments of the men and women who have been his guides and associates, come first and foremost of all the raw material upon which he works, alike in order of time and in intimacy of contact. It is his own social and economic circumstance that determines the special opportunities, the peculiar disabilities, the particular standpoint for observation and reasoning—in short, the inevitable bias with which he is started on his way to discovery, a bias which ought to be known to the student of his work so that it may be adequately discounted.”<sup>6</sup> Sir John Parsons states that, “advance in social science will be brought about by the scientific investigation of spontaneous social experiments, gigantic examples of which are going on at the present time. The essential requisite is that the investigators should themselves adopt that unbiased and judicial attitude which alone can elicit truly verifiable facts from the chaos of inherited instincts, acquired habits, group mentality and other springs of conduct which determine human activities.”<sup>7</sup>

Every economist observes the actions of his fellowmen from his own point of view; everywhere the principle of relativity prevails. The early English writers on economic subjects were themselves traders who formulated theories favourable to the trading class. Adam Smith possessed the outlook of the canny Scot. Ricardo was a city man who saw society from a banker’s parlour, Malthus an aristocratic clergyman who favoured the landed interests. Marx complained that the classical economists were bourgeois who did not understand the outlook of the working man. The same criticism could be levelled against Marx himself, who probably never spoke to a factory worker in the course of his life. Marx, however, acquired the bias of a class other than his own. As M. Barzun has remarked, “to a prophet of the proletarian revolution a labour theory of value is bound to commend itself as both simple and popular.”<sup>8</sup> A more modern example of a great economist being influenced by personal bias is that of Pareto, of whom it has been stated that, “his sociology is a philosophy of society, a social creed, determined mainly by violent political and even purely personal passions. . . . The antagonism to the ideals which his father held dominated all his problems, all his research and all his solutions.”<sup>8a</sup> The majority of professional economists to-day occupy academic positions which, however poorly they are paid, possess the merit of security of tenure. It is possible that the attitude of the working classes towards unemployment and insecurity is, on this account, imperfectly appreciated. Nor is it for professors of economics to rail too loudly against the protection of vested interests, since their own chairs represent vested interests of a highly developed type. Moreover, many writers on economic subjects are middle-aged or old and their outlook is influenced by views acquired in their early years. Historical events appear quite different to contemporaries and to later observers. The secret of writing history successfully is constantly to remember that the people of the past did not share the historian’s knowledge of what is going to happen in future. Just as the historian must adjust his outlook so as to identify himself with each period as he passes through it, the economist must be prepared to take note of the changes that have taken place in the course of his own lifetime. Many economists of the present generation still admire the Victorian virtues and accept the Victorian valuations in an

<sup>6</sup> *My Apprenticeship*, p. 17.

<sup>7</sup> *The Times*, 10th December, 1941.

<sup>8</sup> *op. cit.*, p. 151. <sup>8a</sup>Borkenau, *op. cit.*, pp. 11, 165.

age when "the conventional virtues have been frustrated, like enterprise, or gone out of date, like thrift, or even become social dangers, like competitiveness."<sup>9</sup> The controversies that have led to the advance of scientific knowledge appear in a different light to those who take part in them and to later generations who can see the issues involved in correct perspective. It is important constantly to bear in mind that the contemporaries of every great original scientific publication lacked the benefit of the criticism which it provoked. To adopt a terminology taken from the literature of the trade cycle, things appear very different when seen *ex ante* and *ex post*. Foresight and hindsight seldom agree. The economist's outlook is influenced by his religious and philosophical beliefs. Every school of economic thought is coloured by the philosophical background of its exponents. The physiocrats and Adam Smith believed in the operation of a benevolent natural law which resolves disharmonies between conflicting interests; the classical economists, deeply influenced by Bentham, were utilitarians; Marx was a Hegelian; the Cambridge school are utilitarians whose hedonic calculus has been refined by the method of marginal analysis; national socialism reflects many streams of thought which lie deep in the history of the German people. These biases, caused by class sympathy, age and philosophical outlook, may give rise to a distorted vision. The greatest caution is necessary in accepting the observations of economists regarding the behaviour of their fellow men. Their observations require to be checked by some objective, unbiased, impersonal test. It is frequently suggested that such a test can be supplied by statistics. "When conclusions are reached in the social sciences the soundness of the quantitative comparisons that must be implicit in them will be much more certain if they are grounded in statistical observation and analysis serving as a check upon intuitive and biased judgments."<sup>10</sup>

The place of statistics in economic inquiries has been the subject of much disagreement. In recent years many ill-natured and intemperate attacks have been made on economists for their alleged failure to utilize statistical material. It is sufficient to mention as examples of this type of criticism certain papers read before the Royal Statistical Society,<sup>11</sup> Mr. Colin Clark's strictures<sup>12</sup> and Professor Hogben's tirade<sup>13</sup>. Professor Hogben overstates the case against deductive economic reasoning, blaming economists for their ignorance, not only of statistical material but of the latest scientific and technical details of every branch of production. He even goes so far as to reproach Malthus for not having foreseen the changes in population trends and productive technique that took place after his death. If Malthus had lived to-day he might have avoided the error of failing to foresee the future, as he would have had the advantage of studying Mr. Colin Clark's daring extrapolations.<sup>13a</sup> These attacks have provoked replies by distinguished economists who have fallen into the temptation of unduly belittling the possibilities of statistical methods. Professor Robbins<sup>14</sup> for example, says that no law or generalization of validity has emerged as a result

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<sup>9</sup> Waddington, *The Scientific Attitude*, p. 22.

<sup>10</sup> *Encyclopaedia of Social Science, Art, Statistics*.

<sup>11</sup> *J.R.S.S.*, 1935, p. 497; 1938, p. 511.

<sup>12</sup> *Conditions of Economic Progress*, Introduction.

<sup>13</sup> *Political Arithmetic*, 1938.

<sup>13a</sup> *The Economics of 1960*.

<sup>14</sup> *Nature and Significance of Economic Science*, 2nd Ed., pp. 114-123.

of statistical studies, and Professor Hayek states that the attempt to force empirical methods on social science is "to start at the wrong end," and is bound to "lead to disaster."<sup>15</sup> The extreme expression of this view is to be found in the statement, quoted from an unidentified "famous economist" by Mr. Schwartz at a meeting of the Royal Statistical Society that, "the vulgar notion that the safe methods are those of induction, that the true guide is not general reasoning but specific experience, will one day be quoted as one of the most unequivocal marks of a low state of the speculative faculties of any age in which it is accredited."<sup>16</sup> The true state of the case may be summed up in the temperate conclusion of Professor Florence that traditional economic theory has erred on the side of *a priori* deduction, and that the divorce between economics and statistics has been detrimental to economics and to statistics alike.<sup>17</sup> What is needed is a wisely proportioned combination of both methods. Mrs. Webb puts the case correctly when she states that "a subtle combination of quantitative and qualitative analysis is a necessary factor in social studies."<sup>18</sup> Professor Wesley Mitchell, having referred to theorists who ignore statistics and to empirical investigators who ignore theory, complains that, "between these two groups of workers there has been much less communion than their mutual interests require," and proceeds to state that "scientific progress is a joint product of the two lines of attack upon the unknown. . . . Aside from the limitations of investigators and of their resources the line commonly drawn between statistical and theoretical work has no justification."<sup>19</sup> Statistics are invaluable to the economist in arranging the *data* within his field of observation and in verifying the results of his deductive reasoning. The principal function of statistics may be described as the refinement of the method of observation. The part played by experiment in the natural sciences is to some extent played by statistical inquiries in the social sciences. There is no department of economic theory that has not gained in precision and accuracy as a result of the improved statistical methods evolved and the abundant statistical material rendered available in recent years. This is particularly true of dynamic problems, for example, the growth and decline of population and the course of business fluctuations. "Empirical laws," Mr. Harrod states, "are exceedingly rare in economic studies and the fact that trade cycle observation has yielded one or two, albeit approximate and tentative, suggests that it is a relatively fertile field for the observer. Those theory-proud writers who belittle such effects show themselves defective theorists thereby. For who if not the theorist should understand the limitations of theory? Theory divorced from observation is a mere definition or tautology."<sup>20</sup> The reference to the fruitful results of statistical methods in the study of the trade cycle suggests a possible explanation of the divorce between statistics and economics in the past. Neo-classical economic theory has been mainly concerned with problems of stable equilibrium in which deductive reasoning is all-important, but the growing interest in dynamic problems necessitates the study of the actual course of events in concrete instances, and, in this field, statistical measurement is obviously most helpful.

<sup>15</sup> *Collectivist Economic Planning*, pp. 8-12.

<sup>16</sup> *J.R.S.S.*, 1935, p. 511.

<sup>17</sup> *Statistical Methods in Economics*, pp. V. 227.

<sup>18</sup> *op. cit.*, p. 263.

<sup>19</sup> *Business Cycles*, p. 189.

<sup>20</sup> *The Trade Cycle*, p. 38.

In particular, statistical theory may furnish functional relations between measured economic phenomena and tests for determining the significance of these functional relationships. The determination of functional relationships between suitable series of statistics of wages, prices, profits and interest rates is, for example, of vital importance in tracing the course of business cycles. Mrs Robinson makes a suggestive observation on this subject; "The divorce between theory and realistic investigation, which is a standing reproach to academic economics, has been due in the main to the preoccupation of the theorists with propositions about equilibrium conditions on which, in the nature of the case, evidence from the real world throws no light at all. There are already signs that, when the theorists begin to ask answerable questions, the statisticians need not despair of finding the answers."<sup>21</sup> To profess the hope that further progress will result in future from increased collaboration between economists and statisticians would be to labour the obvious.

There are, however, certain cautions that must be observed in the application of statistical methods in the social sciences. In the first place, it is important that the statistics should be of unquestionable reliability. It is curious that Mr. Colin Clark, in the same book in which he belabours economists for not making sufficient use of statistics, presents some statistics which are incorrect and would, if relied upon, lead to erroneous conclusions. It must not be overlooked that the only people in a position to test the veracity of published statistics may have an interest in falsifying figures for political or other motives. It would be easy to quote allegations that the published statistics of certain countries are deliberately calculated to misrepresent the truth. To do so would, however, be unjust in the absence of evidence more conclusive than the assertion of partial or hostile critics. Nevertheless it is not incredible that such allegations should be in some cases well founded. Propaganda is a powerful weapon of modern statecraft, and the skillful presentation of statistics suitably designed to convey misleading information at home and abroad might well form part of a propagandist campaign. The possibility of such deception is no reflection on the integrity of official statisticians who cannot be held responsible for the use which may be made of the material which it is their duty to supply. Private businesses, especially when an element of monopoly or restriction is present, may also have an interest in publishing false information. The practices of window-dressing and of undervaluing reserves are not confined to banks. Even the most enthusiastic advocate of the statistical method in economics would admit that bad statistics are worse than none.

Statistics, to be of full use for the study of economics, must be collected and presented with this study in view. Official statistics have been collected mainly with a view to administrative use, and many of the matters which the economist would particularly like to know have never been enumerated. Many commissions in Ireland, England and elsewhere have emphasized the need for more and better statistics, and it may be assumed that, with the growth of socialization and economic planning during and after the war, this need will be satisfactorily provided. Signs are not lacking of a great improvement in the quality of official statistics. In Great Britain, for example, the Treasury White Papers, prepared by the Central Statistical Office and issued with the

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<sup>21</sup> *Essay on Marxian Economics*, p. 112.

1941 and 1942 Budgets, throw a flood of light, previously not available, on the economic and financial impact of the war. The closest contact should be maintained between the statistician and the economist. Professor Florence says that the economist can construct empty boxes but cannot fill them through lack of realistic knowledge, and the statistician cannot fill them because, although he possesses the knowledge, he does not know what or where the boxes are.<sup>23</sup> Professor Wesley Mitchell stresses that all statistical research must be guided by theoretical knowledge. "At every turn we shall need working hypotheses to guide our selection of *data* and to suggest ways of analysing and combining them . . . figures are of little use except as illuminated by theory."<sup>24</sup> Mere fact-finding teaches us nothing and leads us nowhere. Professor Bowley insists that, "we ought to realize that measurement is a means to an end; it is only a childish mind that delights in numbers for their own sake."<sup>25</sup> Even Professor Hogben, the arch-advocate of the statistical method, warns his readers that, "science is not an indiscriminate collection of all recorded facts," and refers to "the trivial issues which sometimes prompt the laborious collection of economic statistics."<sup>26</sup> Professor Myrdal goes so far as to say that the "excessive fact-finding enthusiasm of recent decades" signifies a reluctance to come to grips with the wider aspects of economic problems, and constitutes "an escape from facts,"<sup>27</sup> into what Professor Robbins calls "the Nirvana of purposeless observation and record."<sup>28</sup> Professor Schumpeter warns against the danger of the mere assembly of statistics serving as the occasion of "nonsense induction" and "spurious verification"<sup>29</sup> and Mr. Lachmann condemns that "spurious scientism which harbours an almost superstitious belief in numbers and identifies measurability with intelligibility."<sup>30</sup>

Statistics have their uses in economic study, but they can never replace or dethrone the method of deductive analysis on which economic theory has been constructed. The principal uses which statistics serve are the provision of new *data* for observation and the verification of the conclusions reached in a deductive process. Professor Carr-Saunders says that, "while statistics are a form of refined and organised observation, their main usefulness is to extend common observation. Some tentative generalization may be reached; the main contribution of statistics, however, is to establish the facts."<sup>31</sup> Merz, in his great *History of European Thought in the Nineteenth Century*<sup>32</sup> states that "it is now generally admitted that, in the sciences dealing with human nature and society, observations, figures and measurements rarely if ever suffice to establish a valid generalization. So far as the complicated phenomena presented in economics are concerned, the suggestions leading to so-called laws have in every case been got elsewhere." This view is supported by the weighty authority of Halévy. "It may be that economists have been wise in having multiplied their statistical researches. But would these detailed labours have been possible if the economists

<sup>23</sup> *op. cit.*, p. 228.

<sup>24</sup> *op. cit.*, pp. 3, 53.

<sup>25</sup> *op. cit.*, p. 226.

<sup>26</sup> *op. cit.*, p. 39.

<sup>27</sup> *Population, a Problem for Democracy.*

<sup>28</sup> *op. cit.*, p. 120.

<sup>29</sup> *Business Cycles*, Vol. I, p. 32.

<sup>30</sup> *Economica*, 1941, p. 368.

<sup>31</sup> *Economica*, 1942, p. 102.

<sup>32</sup> Vol. II, p. 586.



of the first period had not provided them with the necessary framework, with a scientific language and with the very ideas of what an explanation in political economy ought to be? By them and by them alone men reached the truths of the domain of political economy. By them men defined the elementary notions of that science."<sup>33</sup> Undue reliance on statistical methods may oversimplify the facts under observation. "The human mind is always in search of unity and simplicity. In that search and in the particular field of economic phenomena, statistics provide a comfortable way out of the perplexing multiplicity and heterogeneity presented by the economic world and the processes that are taking place therein. . . . Statistical constructions are always calculated results, not *data* given by the economic process. Therefore changes in these constructions cannot be used to explain economic changes but only to describe them."<sup>34</sup> It is only fair to add that, as has already been explained, statistics can describe facts and can establish functional relations between facts with a degree of refinement impossible without their assistance. If it be complained that the traditional deductive method oversimplifies economic investigation, it may be replied that the simplifying assumptions from which the discussion begins are no more than first approximations destined to be qualified at a later stage, and that the very complexity and mutability of economic activity are arguments for rather than against the use of simple theoretical models. Statistical investigation, unrelated to such a background, is in danger of degenerating into mere historicism or a study of comparative institutions. The historical school maintained that it was impossible to make generalizations from facts and thought it sufficient simply to describe the facts. Professor Morgenstern states that, "the place that was in earlier decades occupied by history is to-day taken by statistics among the disciples of the historical school who still linger on disguised."<sup>35</sup>

Assuming that all the statistics at the economist's disposal are accurate and unbiased, that they are collected and published with due regard to the requirements of economic investigation, that the statistician is constantly guided by the economic theorist, and that the theorist makes the best possible use of the available statistics for the appropriate purposes, there still remain serious limitations on the utility of statistical methods in the study of economics. These limitations arise from the essential difference between the physical and the social sciences, which renders inappropriate to the point of danger the application to the latter of methods suitable to the former. The existence of such limitations, it must be emphasized, is not a reason for rejecting statistical methods in their entirety. Some statistical verification is better than none. "Every method, like every instrument, has its limitations, and we do not abuse a knife because it turns out not to be a fork."<sup>36</sup> Professor Morgenstern, having stressed the limitations of statistical methods, goes on to say that, "it would be an inexcusable error to believe that the element of vagueness would be less if economic policy were to be conducted with less attention to the collection and utilization of current statistics. Surely a flickering torch is preferable to complete darkness."<sup>37</sup> In the social sciences the number of variables is usually extremely large. It

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<sup>33</sup> *Growth of Philosophical Radicalism*, p. 498.

<sup>34</sup> Heilperin, *International Monetary Economics*, pp. 267-9.

<sup>35</sup> *op. cit.*, p. 9.

<sup>36</sup> Webb, *op. cit.*, p. 297.

<sup>37</sup> *op. cit.*, p. 15.

is almost impossible to realize the condition that other things remain equal while one variable is altered. The universes in the social and economic fields tend to be comparatively unstable. Economic decisions are always influenced by expectations regarding the future rather than by the recollection of the past. The economic man is essentially looking forward into an obscure and changing prospect. "There are always forces at work which are masked, mainly by the time factor, and which, immediately they begin to operate, are already shaping the present and the future without having yet given any tangible manifestation. At every moment of time there ensues an unmasking of the immediate past. Since however human action takes place not in the past but in the present and is directed towards obtaining results in the future, which is never fully known, a vast source of error is opened up. At any moment of time economic events, like all events, seem to be proceeding in some particular direction. Only the future, often by bringing things to pass which are contrary to expectation, shows what numerous other possibilities at that time unrealized were present."<sup>38</sup> It has been truly said that, "statistics tend to measure the present by the standards of the past."<sup>39</sup> The transition from quantitative to qualitative measurement is beset with difficulties. The analogy of the "crowd" laws in the physical sciences is not exact because the atoms in the economic population have minds of their own which are liable to change owing to the very pressure of their neighbours. Mr. Keynes points out that "the practical usefulness of these modes in inference, here termed numerical and statistical induction, can only exist if the universe of phenomena does in fact possess those peculiar characteristics of atomism and limited variety which appear more and more clearly as the ultimate result to which material science is tending."<sup>40</sup>

It was stated above that there is a danger of statistical investigation degenerating into mere historicism. The danger in the opposite direction is that of becoming atomic. In economic life many events, for example wars and inventions, are unique; history never repeats itself. The classical economists have been accused, with some justification, of atomism. It must be remembered that they were largely influenced by Newton. Halévy states that, "what is known as utilitarianism or philosophic radicalism can be defined as nothing but an attempt to apply the principles of Newton to the affairs of politics and of morals."<sup>41</sup> The first number of Bentham's *Westminster Review* opens thus: "Man is composed of a fixed quantity and of a moving quantity; but the sameness is in all cases much greater than the diversity; the essential characteristics of humanity are mightier than climate, education, habit, government and events; they are untouched by these causes in all their combinations and continually limit their results."<sup>42</sup> The pioneers of the French enlightenment attempted to apply the methods of the natural sciences to the social sciences. Condorcet believed that observation would establish universal laws of human behaviour which would enable the future of the race to be foreseen, accelerated and directed. The St. Simonians almost deified Newton whom they regarded as the founder of a new religion, because it had been revealed to St. Simon in a vision that it was Newton and not the Pope

<sup>38</sup> Morgenstern *op. cit.*, pp. 13-14.

<sup>39</sup> Roberts, *Recovery of the West*, p. 68.

<sup>40</sup> *Theory of Probability*, p. 427.

<sup>41</sup> *op. cit.*, p. 6.

<sup>42</sup> Preface to Halévy, *op. cit.*

whom God had elected to sit beside Him and to transmit to society His purpose. The utilitarians were also deeply influenced by Newton's demonstration of the laws of the universe, and attempted to prove that social activity was ruled by similar laws of attraction. "The Newtonian method was applied to social life with a view to determining the smallest possible number of general simple laws, which, once discovered, will enable all the details of phenomena to be explained by a simple deductive method. . . . Given a science of the mind and a science of society which exhibit the qualities both of the experimental and of the exact sciences analogous to the physics of Newton, should it not be possible to found on these new disciplines a moral and legal theory which would be scientific?"<sup>43</sup> The introduction of the Newtonian method into morals, which was the avowed aim of Hutcheson and Hume, was encouraged by Quetelet's insistence on the "mean man" and the application of the calculus of probabilities in the social sciences. Modern psychology has destroyed the pretensions of this atomic conception of mankind. The "mean man" is a myth. It is the exceptional man, whether he be a capitalist entrepreneur, a socialist planner or a totalitarian dictator, whose decisions are most relevant. "While in the truly empirical natural sciences it is the rule which counts, it is the exception which is decisive in all social sciences owing to their fundamentally dogmatic and unempirical character."<sup>44</sup> Economics is concerned with the decisions taken by individuals, and, as it has been well said, "for individuals there are no statistics, and for statistics there are no individuals,"<sup>45</sup> or, as Gibbon put it in his autobiography, "the results of probability which are so true in general are as fallacious in particular." Human nature is so constituted that the very fact that a prediction has been made may cause men to act otherwise. "Once man sees his fate he can avoid it. . . . No 'law' is stronger than the will of the people whom it concerns."<sup>46</sup> Moreover the economic man is in a state of constant change. Even if Quetelet's conception of a "mean man" were valid it would be valid only in reference to a given population. No two populations are alike. There is no standardized economic man about whom universally true statements can be made. The field of observation in economics is in a state of constant change. Economic generalizations are consequently in need of constant revision.

A clear distinction must be made between assumptions of universal and assumptions of provisional validity. Economic laws are those statements of probable human behaviour which are reached after the scientific processes of induction and deduction have been completed. These statements, as has been already indicated, are necessarily of limited significance owing to the variability of mankind. The economic man is not an abstraction but a real man, and real men differ from one another. Economics studies the way in which men allocate their resources so as to produce a position of maximum satisfaction. Owing to the scarcity of human resources in relation to competing wants, there are certain facts which influence men in making such an allocation. These facts arise out of the nature of the physical universe and transcend all legal and institutional changes. They are part of the physical and psychological *data* on which economic discussion is based. The incapacity of nature to give equal responses to increasing stimuli dictates the necessity for limiting

<sup>43</sup> Halévy, *op. cit.*, p. 6.

<sup>44</sup> Drucker, *The End of Economic Man*, p. 44.

<sup>45</sup> *Encyclopaedia of Social Sciences, Art, Probability.*

<sup>46</sup> Roberts *op. cit.*, pp. 24, 72.

the amount of effort that is devoted in every separate direction. Consumption is always regulated in the light of the principle of diminishing utility and production in the light of diminishing returns. These two principles are in fact aspects of the universal scarcity of resources. The law of diminishing returns is the law of diminishing utility with the agent and the patient reversed. Another aspect of scarcity is the costliness of every choice. Every decision to employ resources in one direction involves the sacrifice of every available alternative opportunity. Every decision therefore involves a sacrifice or real cost. All the possible needs of an individual at any particular moment of time cannot be simultaneously satisfied; enjoyment at one point in the stream of time involves the abandonment of enjoyment at other points in the stream. These are all different aspects of the fact of scarcity. Another fact is the relation between the size of an undertaking and its efficiency. Just as in biology certain types of organism tend to survive others in given environments, so in the economic world some productive units possess a greater capacity to survive than others. This capacity to survive depends upon the size and structure of the productive units and upon the environment in which they are situated. These principles of the survival of the fittest in nature and in society are derived from physical necessities and are of universal validity. They are part of the *data* of the biologist or the economist. Their existence can be disregarded only at the danger of the whole subsequent discussion being based on insecure foundations. The laws of diminishing and increasing returns are immutable reflections of physical nature which form an essential part of the *data* of all economic discussion. These principles, grounded on the inescapable realities of scarcity and differential capacity for survival, constitute what have been called the "purely economical" as distinguished from the "legal" or "historical" categories of political economy; they "can be treated quite apart from any particular nation or any particular age in the world's history."<sup>47</sup> They are identical with what John Stuart Mill has described as "the economic generalizations which depend on the necessities of nature" as distinguished from "those which depend upon the existing arrangements of society."<sup>47a</sup>

Economic laws are generalizations about human behaviour. "Acts not facts," Benedetto Croce says, "are the subject matter of economics." Human behaviour is the result of what men think. "Material objects are never more than the occasion or condition of economic facts; the true economic facts are the ideas of men in relation to these objects."<sup>48</sup> But everybody does not share the same ideas. Different men have different ideas and act therefore in different ways. The economic man is a real man with a body, a mind and conscience. He does not inhabit a vacuum but lives in an environment of legal, social and conventional institutions. His behaviour is the result, not only of his crude and untamed cravings and aversions, but of his notions of right and wrong and of his neighbours' notions of right and wrong. These notions vary widely in different places and in different periods of history. There cannot be any generalizations valid for all mankind at every age. This part of the economist's *data* is constantly changing, and generalizations that do not allow for changes are likely to be untrue. Economic laws are thus strictly limited in their applicability. M. Rueff correctly states that: "All we can claim is that, at a given moment, an economic theory

<sup>47</sup> Bonar., *Philosophy and Political Economy*, p. 18.

<sup>47a</sup> *Autobiography*, p. 209.

<sup>48</sup> Seignobos, *La methode historique appliquee aux sciences sociales*.

is good when it explains all the economic facts known at the time under consideration."<sup>49</sup> Economics is not to be condemned as a bad science because its laws are not universally applicable. It would merit condemnation if it claimed a universality which it does not possess. "A characteristic of social thought is that it is necessarily relative. Just as a point can only be placed in relation to other points, so our social and political ideas at any moment can only be defined in relation to our own position in the history of society, which itself has to be placed by reference to the general trend of society. The social sphere bears more resemblance to Einstein's than to Euclidian space."<sup>50</sup> It has been aptly said that "Dr. Schacht's true greatness resides in his realization that in economics few doctrines are right at all times."<sup>51</sup>

A couple of examples may illustrate the effect on economic laws of changes in morality, law and conventions. A Christian is normally monogamous and does not practise infanticide. These are two important facts bearing on the growth of population. Generalizations about population based on these assumptions might be correct for a community of Christians but would be quite incorrect if applied to other types of community. Neither of these assumptions was true in the ancient world, nor are they true in many parts of the Orient to-day. The generalizations based on their validity are therefore limited in space and in time. The existence of different *data* necessitates the framing of new generalizations. The old laws have not become untrue; they have become irrelevant. The old and the new laws are both true in their appropriate setting. When a railway is run by steam the engineers require to know the laws of thermo-dynamics. Pressure gauges measure the force of the steam. But if the railway is electrified the laws of thermo-dynamics are no longer sufficient to solve the problems of the engineers. New laws, those of magnetism and electricity, need to be studied, new measures, ohms and amperes, to be devised. The old laws and the old measures have not become untrue but merely irrelevant.

There have recently been published many anthropological surveys of primitive peoples, from which it appears that there are modes of carrying on the life of society widely different from those which we are inclined to take for granted. The forces of mutual co-operation and of mutual destruction, the principles of peace and war, appear in all such communities, but in strange and unfamiliar forms. Mr. Raymond Firth's *Primitive Polynesian Economy* depicts a community whose relationships are determined scarcely at all by considerations of value and exchange, but depend on kinship and social rank. Welfare is held to rest on knowledge, not of industrial processes, but of rituals designed to render the universe friendly. Wealth and its responsibilities are not separated in thought and practice, and the etiquette of giving and receiving is the very framework of social intercourse and provides its crowning grace. "Anthropology, which is the scientific study of the societies which have been found in different parts of the world, has discovered that human nature is an extraordinarily variable thing. The really innate qualities of man, the basic characteristics which society cannot change, but must accept and build on, are much vaguer than anyone could have expected."<sup>52</sup> The knowledge of the existence of social structures so very different from those with which we are

<sup>49</sup> *op. cit.*, p. 153.

<sup>50</sup> Cobban, *The Crisis of Civilization*, p. 102.

<sup>51</sup> Crowther, *Ways and Means of War*, p. 34.

<sup>52</sup> Waddington, *op. cit.*, p. 20; et v. Herskovitz, *Economic Life of Primitive Peoples*.

familiar should make us hesitate to claim more than a strictly limited validity for any economic law. It may be that the future will witness societies as different from ours as ours is from that of primitive peoples, in which our economic laws will be inapplicable, not because they have ceased to be true but because they have ceased to be relevant. Marshall was well aware of the limited validity of economic laws. "An economic law," he warns his readers, "is often applicable only to a very narrow range of circumstances which may exist together at one particular place and time, but which quickly pass away. When they are gone, the law, though still true as an abstract proposition, has no longer any practical bearing. . . . Every change in social conditions is likely to require a new development of economic doctrines."<sup>53</sup>

The question arises whether the conditions which existed when the deductions of the classical economists were formulated have not changed to such a degree as to call for the revision of their conclusions. The circumstances of the twentieth century are very different from those of the nineteenth. Many changes in the institutional background of economic life and in the currently accepted standards of behaviour have made desirable a revision of some of the economic laws which at one time found universal acceptance, at least in the English-speaking world. These institutional and moral changes are not completely independent. Human institutions are the result of human decisions, which in their turn reflect human valuations of right and wrong. Every change in the currently accepted ultimate valuations of society may produce variations in the institutional framework of economic life. Assumptions that were once true may have become untrue with the passage of time, and deductions based upon the old assumptions may require correction. "Given a certain set of conditions, the great mass of the community will decide to act in a certain way. Social laws rest on the observation that men will choose a course of action in harmony with what they conceive to be their welfare, and on the further observation that the very idea of an organized community implies that a majority will be found to entertain common ideas of what is their welfare. If the conditions change, the common ideas will change with them. . . . The realization of the fact that social institutions are products of evolution and that they must form historical and relative categories, instead of being absolute categories, is the one great acquisition of modern economics which differentiates it *in toto* from that of earlier times."<sup>54</sup> While it may be true that economists generally recognize the necessity of revising their conclusions in the light of changing institutions, theory frequently fails to keep pace with changes in the facts because of a natural, almost inevitable, lag between observation and deduction. Mrs. Robinson is probably right when she says that "it has generally been the fate of economic theory to run a losing race against the course of history and never to have completed the analysis of one phase of economic development before another takes its place."<sup>55</sup> Theory lags behind practice like the dog attempting to overtake his master in the well-known curve of pursuit.

Marx quite justly accused the classical economists of assuming as permanent postulates which were transitory. The classical economists, in spite of their knowledge of the changes that had taken place in earlier centuries, appeared to assume that, with the coming of capitalism,

<sup>53</sup> *Economics of Industry*, Appendix A.

<sup>54</sup> Seligman, *Economic Interpretation of History*, pp. 99, 161.

<sup>55</sup> *op. cit.*, p. 111.

"history had done its work"<sup>56</sup> "Even when the classical economists were candid enough to perceive that their hypotheses had not always been valid in the past, it rarely occurred to them to reflect that these hypotheses might cease to be valid in the future"<sup>57</sup> Marx and Engels, influenced by Darwin's demonstration of perpetual struggle for survival and the emergence of the fittest by natural selection, pointed out that the social and economic structure is in the course of constant change. Inventions, they stated, play in economic life the part played in nature by biological variations. Marx and Engels, however, failed to realize that they were as much creatures of their own time as the classical economists had been of theirs. "In taking this (the materialistic) view of history, the scientific socialists seem to be committing the mistake which they blame in Ricardo and the older economists. They are taking the ruling principle of their own age for the ruling principle of all time."<sup>58</sup> Marx may have shown that, "the orthodox system of economics was a mere rationalization of the interests of the dominant class in society" but he did not appreciate that his own system was "a theoretical reflection of the economic position and social aspirations of the industrial proletariat of the nineteenth century."<sup>59</sup> Factory production brought into being mass consciousness which marxism developed into proletarian consciousness. Marxism was itself a reflection of the current structure of production. The gradual emergence of industrial employers and proletarian workers who were drifting apart and developing conflicting interests suggested the inevitability of a clash in the future. Marx, who had no direct contact with the working classes, and Engels, who knew them only as an employer, never believed in the possibility of the peaceful democratic solution of social questions. The theory of economic determinism, like every other economic theory, arose at a definite time and for quite definite historical reasons. It was a reflection of the Industrial Revolution.

Marxism, moreover, was coloured by the prevailing liberalism against which it protested. It had all the abstract character of classical economics, the same over-simplification of human beings into economic men with only economic motives, the same doctrinaire theorizing about the rights and actions of men so conceived and the same rigid logic in working out the consequences, the same atomism, the same internationalist outlook, the same belief in indefinite progress without any clear conception of a moral end. The materialist interpretation of history rests on the same fundamental assumptions as the classical conception of equilibrium. Marx's anger with capitalism was the rage of Caliban seeing his own face in the glass. Marx's assumption that the classless State would prove the final and enduring form of society was as groundless as the assumption by the classical economists that the categories of capitalism had come to stay. Actually the course of social evolution predicted by Marx has not developed according to plan. The dictatorship of the proletariat has led, not to the classless State, but to State capitalism in Russia and to fascism elsewhere. "Bolshevism is not the end of history but only a factor in history. Like the French Revolution, which also believed it had introduced the future and final world order, it proved in reality the instrument of a particular social and historical rearrangement whose right in turn is already called in question"<sup>60</sup> The theory of surplus value was based on

<sup>56</sup> Roll, *History of Economic Thought*, p. 369

<sup>57</sup> Carr, *Conditions of Peace*, p. 67

<sup>58</sup> Bonar, *op cit*, p. 345

<sup>59</sup> Cobban, *op. cit* pp. 89-90

<sup>60</sup> Gurian, *Bolshevism in Theory and Practice*, p. 6

the inevitability of exploitation of labour by the owners of capital. That such exploitation can and does take place, and that it was unusually prominent in the age of the Industrial Revolution, is undeniable. But other and worse forms of exploitation are equally possible. Not only can strongly organized labour exploit the owners of capital, but groups of labourers of unequal bargaining power can exploit each other. The outstanding examples of exploitation in the twentieth century have been racial and imperialist rather than capitalist. All the experience of recent years has demonstrated that national patriotism is far stronger than class allegiance. The conflicts of the present century have nothing in common with the inevitable class war which Marx predicted with such mistaken confidence. The working classes have clearly shown in two great wars that national ties are stronger than class sympathies. Modern socialism is essentially national in outlook. The internationalism of marxism reflects the middle class ideology of its distinguished founder. Since Marx's time, the State has everywhere intervened to protect the working class and to raise the standard of living. The workers of Europe and America realize that they owe their high standard to the strength and power of their countries which protect them against the competition of less favoured workers elsewhere. Labour has abandoned liberalism, but it has abandoned it in favour of national, not international socialism. Even bolshevism has developed into Russian nationalism. "Labour internationalism has so far proved to be one of the most futile ideologies ever cherished; the real trend of things has gone exactly counter to it, and the labour movement itself has had, over and over again, to bow to nationalist trends, not only because it was not strong enough to counter them but because they coincided with its own most urgent interests"<sup>61</sup> It may even be true that the growth of democratic socialism has tended to increase the danger of war, since modern wars are between the masses of the nations involved. Contrary to all the doctrines of nineteenth century socialists, the progress of socialism has produced international friction rather than international solidarity.

Marx did not appreciate how much his theories were coloured by the circumstances of his own time. He failed to realize that he was influenced by the contemporary scene to the same extent as the classical economists whom he rightly criticized for assuming as permanent premises which were transitory. Three examples are sufficient to illustrate the perils of such an assumption. The classical economists assumed as normal the presence of active competition, the direction of production by entrepreneurs and the expansion of population. Each of these assumptions has become less valid with the passage of time.

The classical economists assumed that competition is the normal condition of production, as, indeed, it actually was in the early nineteenth century. Their optimistic outlook was based partly on the harmonies that prevail in society under the influence of competition. The low cost producer tends to supplant his less efficient rival, selling prices tend to approximate to the cost of production of the most efficient producer, and consumers thus participate, almost automatically, in the fruits of technical progress. The advantages gained by the adoption of inventions and improvements cannot be intercepted by producers but must be shared with the consuming public. Monopoly was regarded as something which was exceptional in practice and reprehensible in principle. In modern times monopoly has tended to replace competition in an ever-

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<sup>61</sup> Borkenau, *Socialism, National or International*, p. 157.



widening field. The laws of natural selection have operated in an unforeseen manner. It is competition itself that has failed to survive in the competitive struggle for existence. Business men have discovered that their self-interest is served better by mutual combination than by mutual destruction. "It is not often realized to what an extent combination in its various forms such as price-fixing arrangements, market-sharing arrangements, rings, cartels, trusts, pools, combines, and plain monopolies, has spread over British industry. The trade in which prices are determined by competition and in which the newcomer can enter on terms of approximate equality is now a distinct rarity. The great bulk of British industry is divided into industrial fiefs fully as much as if every industry had been nationalized by the State."<sup>62</sup> Industry, as a result of this growth of monopoly, has become increasingly rigid. Competition based on price-cutting has been, to a large extent, replaced by monopolistic competition based on expensive persuasion and advertizing. Adaptability and mobility have been reduced and progress has been retarded in the interest of maintaining the value of existing capital. Patents are frequently shelved and the public deprived of the benefits of scientific and technical progress. Restriction of output has been widely practised. Monopolists are human and will fall into the temptations to which their position gives rise. A leading English business man, Mr. Samuel Courtauld, states that: "With the growth and progressive combination of industries until their boundaries are practically coterminous with those of the nation, it is the duty of the Government to take power to control them, for no Government can tolerate the existence within its borders of an organized and completely independent power with a radius of action as wide as its own. The same overriding principle should apply to trade unions as developed to-day."<sup>63</sup> These changes in the structure of industry necessitate a reorientation of economic theory. The classical economists relied upon the operation of unlimited competition to ensure that the individual in seeking his private profit is also serving the common good. At the present day reliance must be placed on other forces to produce that harmony of interests, and those forces may be found in practice to include some measures of public control ranging in intensity from regulation to complete socialization. Meanwhile competition is no longer assumed in economic textbooks as either normal or even proper. There has been a growing volume of discussion of the effect of imperfect competition on the formation of prices and of the problems of policy that arise in relation to monopoly.

The competitive world of the classical economists was assumed to be directed by a type of small business man, the entrepreneur, who has become of less and less importance with the growth of modern industry. The keen business man, ever watchful for opportunities of profitmaking, has been largely replaced by impersonal collective organizations in which decisions are taken by officials who have little direct interest in the result. There is little difference between the managerial staff of a large private company and that of a public utility. The fact that the capital is in the ownership of shareholders does not alter the fact that the enterprise is conducted and all important decisions are taken by a class of salaried skilled managers.<sup>63a</sup> Even the owners of many companies to-day are not animated by the hope of sharing in rising profits. An

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<sup>62</sup> *The Times*, 29th November, 1941.

<sup>63</sup> *Economic Journal*, 1942, p. 2.

<sup>63a</sup> See Burnham. *The Managerial Revolution*.

increasing proportion of industrial capital is held in fixed interest securities, and there is a preference for stable rather than speculative shares. "The typical entrepreneur is no longer the bold and tireless businessman of Marshall or the sly and rapacious Moneybags of Marx, but a mass of inert shareholders, indistinguishable from rentiers."<sup>64</sup> The evil of speculation is giving way to the evil of debt. Among the directors of large companies the professional attitude is taking the place of the business attitude. "An industrial career," Mr. Samuel Courtauld states, "is now a *métier* and not merely a road to private acquisition."<sup>65</sup> Society is being driven in the direction of collectivism, not by ideological preference, but by the hard facts of the situation. This is well expressed in the following extract from a leading article in *The Times*<sup>66</sup>: "The abandonment of *laissez-faire* as a basis of industrial policy has been brought about, not by the triumph of any contrary doctrine, but by the natural trend of modern industry towards monopoly. Individualism in economic life has been driven to the wall, not by the state collectivism of nineteenth-century socialist theory, but by the practical collectivism of the corporation, the trust, and the cartel. 'Private enterprise' is a misnomer when applied to the vast industrial and commercial organizations which are the characteristic and dominating feature of the modern economic system; and, whether the taking over by the State of such enterprises is desirable or not, to describe this policy as the conscription or nationalization of 'private property' suggests a thoroughly misleading analogy." Capital is passing into the ownership of groups rather than individuals. Labour is similarly grouped in trade unions. This grouping of capital and labour has greatly reduced the mobility of the economic system which was so essential to the satisfactory working of competitive institutions. Bagehot warned English economists that their assumption of mobility was unduly extended. While it may have been largely true in England in the nineteenth century, "taking the world present and past as a whole the exact contrary is true; in most ages and countries this tendency has not been victorious but defeated; in some cases it can scarcely be said even to have existed, much less to have conquered. . . . This primary assumption of our political economy is not true everywhere and always but only in a few places and a few times."<sup>67</sup> Everything that has happened since Bagehot issued that warning has tended to increase the immobility of labour and capital, with the result that the economic system to-day offers the strongest resistance to change. Inelasticity and rigidity are everywhere present, and vested interests, whether of capital or labour, are strongly entrenched.

The classical economists, generalizing from the conditions of their own time, assumed that a population would normally expand. Recent studies on demography have shown that a rapidly increasing population is the exception rather than the rule. A growing population is very favourable to maintaining a high level of investment and employment since it creates a continually growing demand for consumption goods. A stationary or declining population is, on the contrary, discouraging to investment, especially in fixed capital with a lengthy expectation of life. The rate of saving in such a population will not, however, diminish and may possibly increase. In these conditions chronic unemployment may appear. In recent times the rate of population growth has declined. Pro-

<sup>64</sup> Robinson, *op. cit.*, p. 21.

<sup>65</sup> *Economic Journal*, 1942, p. 1.

<sup>66</sup> 6th December, 1941.

<sup>67</sup> *Economic Studies*, pp. 22-3.

fessor Alvin Hansen has estimated that the slowing down of the expansion of the world's population has halved the available outlets for profitable investment.<sup>68</sup> The adaptation of a traditionally expansive civilization to less progressive conditions may call for a revision of many assumptions which have ceased to correspond with reality. The classical economists assumed full employment of the factors of production as the normal state of things and, as long as this assumption was valid, it remained true that the diversion of labour or capital to produce one thing necessitated a reduction in the production of something else. In particular, capital construction and the production of consumption goods were competitive with each other. Recent economic theory has shown that the assumption of full employment must be dropped if the causes of persistent and chronic unemployment are to be explained. The removal of this assumption has revolutionized certain aspects of public finance and monetary theory. It has recently been demonstrated that the function of advertising appears entirely different when the assumption of full employment is relaxed.<sup>69</sup>

The reduced flexibility of the economic system, manifested in the decline of competition, mobility and the rate of expansion, is a symptom of maturity, if not of senility. The modern world is suffering from a hardening of the arteries which is characteristic of old age. Economic systems are, however, the result of human actions and human decisions. They do not spring spontaneously into existence. It is therefore necessary to inquire whether changes have taken place in the ultimate valuations of mankind that would account for this growing rigidity. The answer is that, in the more developed and mature countries, security and stability have come to be desired more than a rapid rate of progress accompanied by a growing volume of production. As a result of technical improvement, which was rendered possible to a large extent by the expansion of trade of the nineteenth century, production has increased with unprecedented rapidity. Society has at the same time tended to become more unstable. The outstanding evils of modern times have been slumps, crises and unemployment rather than absolute poverty. The very progress of the world has brought new evils in its train. Since the first world war and, even more, since the depression of 1929, the demand for security and stability has been replacing the demand for increased production. Professor A. G. B. Fisher's book, *The Clash Between Progress and Security*, shows that the desire for security has spread over the whole economic field, and that employers and workers alike are willing to pay the price of a reduced standard of living for greater stability. The success of the totalitarian economic policies rests largely on the promise of security which they contain—security from unemployment and from external competition.

The demand for security is accompanied by a demand for greater equality. The rights of legal and political equality obtained a wide recognition in the nineteenth century, but no such right to economic equality was admitted. As the franchise became extended more and more, the hollowness of political equality accompanied by a high degree of economic privilege was bound to produce discontent and dissatisfaction. "The failure of nineteenth century democratic theory," according to Mr. A. D. Lindsay, "to recognise the political relevance of economic power did much to discredit democratic theory."<sup>70</sup> In recent years the growing

<sup>68</sup> *Fiscal Policy and Business Cycles*, p. 363.

<sup>69</sup> Rothschild in *Economic Journal*, 1942, p. 112.

<sup>70</sup> *Dublin Review*, January, 1942, p. 30.

monopolization of capital and labour has tended to concentrate economic power in the hands of powerful combinations of employers and employed. "When organized economic power became triumphant, the foundations of nineteenth-century political democracy crumbled. Political rights have come to seem irrelevant in so far as they no longer confer control over those factors which determine the decisive issues of national life."<sup>71</sup> The necessity for supplementing political equality by a great increase of economic equality is generally recognised to-day. The totalitarian States have succeeded in reducing inequalities of income to a great extent, to be replaced, it is true, by inequalities based on the emergence of ruling *élites*. Every economist is prepared to admit that extreme inequality of distribution is undesirable and that equality should be aimed at in framing policy in so far as it does not react adversely on production. The right to a national minimum income is generally recognized and progressive taxation is rapidly establishing maximum incomes in many countries. If democracy is to survive, the realities of political and economic power must be reconciled. Such a reconciliation involves a growing degree of economic equality. "During the last century the forms of power have been changed from those of oligarchy to those of democracy. For our century remains the greater task of making the realities of power those of democracy."<sup>72</sup>

Classical economic theory regarded material output and the increase of the standard of living as the overruling ends of economic activity. Insecurity, instability and inequality were regarded with complacency as necessary evils to be borne in an age of rapid progress. The "rational" distribution of resources has been defined by a distinguished economist of the liberal tradition as that "which corresponds to the changes in demand and in the technique of production and which therefore is likely to enhance the standard of living."<sup>73</sup> The reason why planning could be dispensed with during the nineteenth century was that the accepted economic end of society could be best attained by leaving every man to pursue his self-interest without restraint. That economic end was the maximum production of wealth and its instrument was the profit motive. The modern world has rejected these as the exclusive end and means of economic welfare. Many other standards besides that of maximum production have been adopted and many incentives besides that of profit have been recognized. For example, the question of free trade versus protection is no longer debated on the old grounds of the maximization of production and the minimization of cost resulting from the international division of labour. The objects sought by modern protectionists are national security, self-sufficiency, isolation from outside disturbances, the maintenance of vested interests by capital and labour. It is precisely because economists continue to think in terms of the old valuations that have been discarded by popular opinion that their counsels are so little regarded. It is fruitless to threaten the man in the street or in the polling booth with the loss of what he despises or to try to win his favours by the promise of that which he utterly rejects. "English economists have usually taken it for granted that the proper, the 'natural' end of economic activity is the attainment of higher income levels. Unfortunately the view that material progress is the proper end of economic activity is by no means universally accepted. Some States still adhere to the traditional British objectives

<sup>71</sup> Carr, *op. cit.*, p. 27.

<sup>72</sup> Robinson, *Monopoly*, p. 286.

<sup>73</sup> Ropke, *International Economic Disintegration*, p. 233.

of the nineteenth and early twentieth centuries, but when the attainment of these objectives depends in fact on a similar outlook in other countries, it frequently runs up against trends which are the result of acceptance of quite different objectives in which high income levels play a quite negligible part."<sup>74</sup> What the liberal democrat calls prosperity, the fascist may call dissolution. Pareto divided human actions into logical and non-logical, the latter including authoritarianism, patriotism, military spirit and physical courage. The field of logical action has tended to narrow and that of non-logical to widen in recent times. The rational calculation of loss and gain, so characteristic of nineteenth century utilitarianism, has been replaced by romantic, irrational impulses. "Our generation is witnessing a violent outbreak of feeling, of irrationalism, of action for its own sake, of myths for destructive ends."<sup>75</sup> The economic man of the classical economists has been replaced by a creature full of suspicion and fear, with no belief in the inevitability of progress or in the beneficent working of the machinery of the market. "Modern war appeared to be the denial of all tenets on which the mechanical and rational conception of society is based . . . The great depression proved that irrational and incalculable forces also rule peacetime society."<sup>76</sup> The materialistic interpretation of history, the doctrine of the superman and the discovery of the psychology of the subconscious have all weakened belief in the accepted valuations and the trusted machinery of the classical economists. "The respectable economic man of the nineteenth century has been unmasked by Marx, Nietzsche and Freud."<sup>77</sup> Dr. Borkenau states that "In fascism as well as in bolshevism rationalism is banned from the most important spheres of human life and is relegated to matters of pure technique"; and continues to express a doubt whether "in the long run a rationalistic technique can coexist with thoroughly anti-rationalist habits of life."<sup>78</sup>

The widespread misunderstanding of events in Germany since the advent of national socialism is the result of the failure to appreciate that economic progress is no longer universally accepted as an end in itself. German policy has had as its supreme objects rearmament and the provision of employment. This policy has been carried into effect with great success by means of extensive investment financed by forced saving. In respect of the means adopted for carrying out the policy of universal employment the tenets of economic orthodoxy were strictly followed. This, it may be remarked in passing, was also the case in Russia. Investment based on forced saving, rather than the stimulation of consumption, was the means adopted. Consumption was discouraged by a variety of devices, all of which were weapons of compulsory saving. It was the end of policy, not the means, that was novel. In order to compensate for the sacrifices in consumption, which were an essential part of the programme, security and stability were provided to the utmost possible extent. In addition, non-economic incentives of a patriotic and military character were invoked. The recognition of the dignity of labour and of the social importance of agriculture were partial compensation for the low real wages with which German workers and peasants were remunerated. The profit motive was subordinated to loftier if not worthier aspirations. The entrepreneur became, in fact if not

<sup>74</sup> Fisher, *International Problems of Economic Change*. International Affairs, 1938, p. 153.

<sup>75</sup> Barzun, *op. cit.*, p. 21.

<sup>76</sup> Drucker, *op. cit.*, p. 57.

<sup>77</sup> Maritain, *Scholasticism and Politics*, p. 4.

<sup>78</sup> Pareto, p. 211.

in name, the salaried agent of the State. The plutocrat has disappeared to be replaced by the "cratoplute." The military and therefore unproductive character of the investment did not prevent it being attractive. Military considerations were uppermost in the minds of the people in their spirit of resurgence. Guns were preferred to butter. If it had been complained that such investment would lead to war rather than to economic progress, the reply would have been that rearmament was a means to national security and that the age of economic progress had ended in disaster. The worship of Mars, it would have been pleaded, is no more base than the worship of Mammon.

The history of economic theory and practice in Germany illustrates forcibly the necessity of avoiding universal generalizations based on the experience of particular places or periods. National socialism represents the culmination of a movement deeply rooted in German history. The conditions which prevailed in 1933 were favourable for the triumph of the national socialist party, but the philosophy and programme of that party can be traced back for over two centuries of German thought. The universalism and the intellectualism of the enlightenment were never accepted in Germany with the same general agreement as in England and France. German thought was directed towards historical studies, which, combined with patriotism, led to the conception of the "folk-nation" as an organic historical growth. Historical rather than natural rights were recognized. Natural law with its emphasis on the natural rights of the individual was admitted only with far-reaching reservations in favour of the rights of the absolute sovereign State. Prussia served as an example of a highly-organized authoritarian State, which contained many socialist elements in the form of social services and publicly owned institutions. The classical economists' belief in the benefits of competition was not accepted; on the contrary, monopolies and cartels were regarded with approval. Mr. Rohan Butler has shown in his remarkable book *The Roots of National Socialism, 1783-1933* that the programme of the Nazi Party rests on foundations that were laid in the eighteenth century. The exaltation of the heroic leader, the racial myth, anti-semitism, the all-significant totalitarian State, the ruling *élite*, the community of the folk, economic autarky, militarism, the need for dynamic action, romanticism, anti-rationalism—these and other characteristics of national socialism can be found embedded in German political and economic thought for over a hundred years. Mr. Butler suggests that the environment of the twentieth century is favourable to the growth of these ideas. "Concentration is the keynote of the early twentieth century, just as expansion was that of the early nineteenth. The nineteenth century was an era of expanding output, expanding markets, expanding hope, free trade, free opportunity, colonial enterprise, liberalism, *laissez-faire*. It was an era congenial to Great Britain. The twentieth century is an age of concentration in its various forms, cartellization, acceleration, specialization, mechanization, mobilization, regimentation. The age has offered an opportunity which Germany has been swift to seize and skilful in exploiting."<sup>79</sup> To accept this conclusion would amount to a confession of the defeat of democratic ideals. Liberals should aim, rather, at incorporating the benefits of totalitarian methods into the framework of their own institutions. England fought against the American and French Revolutions, but no country in Europe learnt more from those Revolutions, or did more to advance their achievements by the flattery of imitation.

<sup>79</sup> *op. cit.*, p. 282.

The twentieth century has seen the triumph, for at least the time being, of economic nationalism. German economists never fully adopted the international outlook of the classical economists and the marxians. Industrialism in Germany started later than in Great Britain and France and needed a considerable measure of State assistance and protection. The large part played by the Government in industrial development facilitated the co-ordination of economic and military policy. Throughout the nineteenth century protests against individualism and internationalism were made by List, the historical school and the academic socialists. It is not surprising that, when the philosophy of liberalism suffered an eclipse, German ideals filled the gap. Economic nationalism, which values security more highly than progress, is the counterpart in the international field of that search for security which dominates economic activity in domestic affairs. Power is valued more than wealth, defence more than opulence. The movement represents a reversion to mercantilism which was the economic aspect of power politics. "The point of view that war does not stand in contrast to peace but only constitutes a difference of degree explains why the political element has always predominated in Germany even in economic theory which has never quite forgotten its mercantilist origin."<sup>80</sup> In recent years the study of *Wehrwirtschaft* has attracted much attention in Germany, where many books have been published on the subject. The length to which this tendency has travelled is shown by the emergence of the term *Dienendewirtschaft*, meaning an economic system designed to serve the ends of the General Staff.<sup>81</sup> Bertrand Russell has shown<sup>82</sup> that, in certain periods of history, men and nations are attracted by power rather than by material wealth. Wealth may be sought as a means to power or an increase of wealth may be foregone in order to secure an increase of power. In any period when coercion is accepted as an approved method of determining human and national relations, war will be regarded as a normal part of the procedure of power politics. This interpretation of history may be compared with that of Pareto, who analyses historical development as a cycle in which fierceness and shrewdness alternate, and with Herbert Spencer's doctrine of the military and industrial phases of society. National power rests on three foundations: military, economic and propaganda. At the present day military and economic power are closely connected, and the economic policies of strong nations must pay regard to defensive and strategical considerations. Military motives dictate the necessity of a high degree of self-sufficiency which is unattainable except in large areas with a wide variety of resources. National boundaries must be extended by co-operation or conquest. The international tension of recent years is partly the result of the failure of national frontiers to coincide with military and economic realities. It has, however, deeper roots than mere geographical inconsistencies, and is the reflection in the realm of practice of a profound revolution in human thought. The classical theory that the interests of nations are harmonized by freedom of trade has few adherents to-day. The triumph of economic nationalism signals the defeat of the liberal optimistic ideals of the classical economists. The present century has witnessed a striking international economic disintegration.

This international disintegration is partly the result of the changes that have taken place in the internal economic systems and policies

<sup>80</sup> Rosenbaum, *War Economics*, *Economica*, 1942, p. 67.

<sup>81</sup> Worsley, *Europe versus America*.

<sup>82</sup> *Power—A New Social Analysis*.

of the leading industrial countries. The growth of monopoly leads to Government intervention and planning, which in its turn leads to the control of a country's external trade and capital movements. Exchange control is a normal feature of planning on any extensive scale, as it is impossible to pursue a liberal external policy together with a regimented internal policy. Exchange control in one country may impose the necessity of planning on its neighbours whose external trade has been dislocated by the interruptions caused to international dealings. This planning may involve exchange control which in its turn may lead to further planning elsewhere. International disintegration and internal intervention therefore mutually react, producing a cumulative effect. Both developments however reflect the abandonment of the theory of the harmony of interests between contracting parties. Individualism and free trade assume that complete freedom of contract between men and nations benefits every interest concerned and that any interference or restriction by Governments prevents the full operation of this natural tendency towards harmony. The question arises whether this alleged harmony of interests did in fact exist during the period when classical economic theory was being evolved. The further question arises whether, assuming that it did then exist, it continues to exist to-day. Is it possible that another of the postulates underlying the classical theory needs revision in the light of changing circumstances ?

The principle that there is a natural force binding all mankind together in a community of interest is to be found in many ancient philosophies ranging from Greece to China. The physiocrats derived their doctrine of the natural order partly from the stoics and partly from the teachings of Taoism which were imported into Europe during the eighteenth century by French missionaries to China. The principle was accepted by the classical economists as a metaphysical or theological truth valid in all ages and in every circumstance. It was erected into a superstition allowing no exceptions. Professor Ropke points out that: "The traditional spirit of economic science was, and still is, largely coloured by belief in not only the sociological autonomy, but also the sociologically regulating influence of the market economy. Implicitly and explicitly, it was and still is held that a market economy based on competition and essentially unhampered by any agency outside the competitive market is an *ordre naturel* which, once freed from all impediments, is able to stand indefinitely on its own feet, steered by that 'invisible hand' which Adam Smith made famous and which, looked at closely, is nothing else than the '*logos*' of Heraclitus or the 'divine reason' of deistic philosophy. Thus the competitive market appeared to be a 'philosopher's stone,' which turned the base metal of callous business sentiments into the pure gold of common welfare and solidarity; social wisdom and morality were the surprising products of countless individual actions not primarily commanded by either; and private vices were turned into public virtues."<sup>83</sup> What tended to be overlooked by the classical economists was that this harmony of interests depends upon the existence of a number of moral, political and legal institutions which are not always present. The satisfactory functioning of the market mechanism does not take place autonomously but is dependent upon the fulfilment of certain sociological and institutional conditions. Self-interest and common interest are co-existent only in that part of the social sphere in which these conditions can be and are fulfilled. The breakdown of

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<sup>83</sup> *op. cit.*, p. 67.



liberalism in recent times is the result, not of any weakness of the principle itself, but of the disappearance of the conditions in which it can work satisfactorily. Professor Rustow emphasizes this important consideration. "Liberalism overlooked the sociological necessity of searching outside the market for that integration which was lacking within it. Instead it proclaimed that competition should be applied as a universal principle even in non-economic fields, and as a consequence of this attitude a progressive disintegration and atomization of the body politic set in as soon as the fund of the inherited integration had been spent."<sup>84</sup>

The economic man is restrained from anti-social behaviour by a whole network of laws, morals and conventions which he disregards at his peril. Every community has a more or less universally agreed code of right and wrong which is generally obeyed. Sometimes the sanctions of conscience or public opinion are sufficient to secure the observance of this code. When these fail, recourse may be had to the positive law which is largely concerned with the compulsory enforcement of current morality. Professor Foxwell puts this well: "That the whole course of legislation is silently, unconsciously moulded by the accepted views as to what is economically and constitutionally fair and just is not to be disputed. Crystallized into catching phrases we meet with these current ideals of equity at every turn. One man one vote, a living wage, a fair day's wage for a fair day's work, equality of opportunity, property is a trust, a man may do as he likes with his own, *caveat emptor*, *laissez-faire*—these and many others will be familiar to us as effective instruments of economic and political movement."<sup>85</sup> The reason that there is an identity of interest between competing parties and between the individual and society is that there is a ringfence of institutions designed to secure that this identity shall exist. The economic man must play the game according to the rules, and the rules are drafted with the object of providing that the individual player's conduct shall not injure the team. Without such an institutional ringfence, anarchy and chaos would prevail. "Under the system of the competitive market economy," to quote Professor Ropke once more, "as well as under any other economic system, economic integration cannot, in the end, go further than socio-political integration based on laws, institutions and psychomoral forces . . . In fact, the market economy is an economic system which cannot exist without a minimum of mutual trust, confidence in the stability of the legal-institutional framework of the economic process (including money), contractual loyalty, honesty, fair play, professional honour, and that pride which considers it beneath one to cheat, bribe, or misuse the authority of the State for one's own egoistic purposes. Above all, there must be a 'creed' in the most general sense of the term, a belief in a definite scale of ultimate values giving sense and purpose to the ordinary doings of all participating in the economic process and, finally, at least a provisional understanding of the meaning and working of this economic process."<sup>86</sup>

Except during periods of revolutionary change, it has proved possible to preserve a sufficient minimum of socio-political integration in well-organized States. The preservation of such a minimum of integration internationally has proved much more difficult. "Anarchism, however attractive, is rejected as a method of regulating the internal affairs of a State except by a few idealistic dreamers; but, except by a

<sup>84</sup> Appendix to Ropke, *op. cit.*, p. 272.

<sup>85</sup> Introduction to Menger, *Right to the Whole Produce of Labour*, p. xiii.

<sup>86</sup> *op. cit.*, p. 69.

few idealistic dreamers, it is accepted as the only method of regulating international affairs.”<sup>87</sup> Different communities have different standards of behaviour; the ties binding men of different nations together are far less close than those that bind together fellow citizens of the same country. Moreover there is no world authority to give legal effect to the common morality and conventions of mankind. A widespread integration has been secured at some periods of history by the existence of great empires or superstates. The economic system of the Roman Empire was a “world economy” in which a high degree of integration was preserved by the *pax Romana*. During the middle ages there was a highly developed economic system of an international character. This system was possible because of the general agreement on political, legal and moral standards that prevailed. Unless there are such agreed standards international integration is condemned to remain at a comparatively low level. No institutions, such for example as the League of Nations, can take the place of commonly accepted norms of behaviour. International law must be erected on the basis of mutual trust and confidence, which in their turn require a wide measure of agreement on ultimate values. There can be no positive international law owing to the absence of effective sanctions. The nineteenth century was characterized by an unusually high degree of agreement on the fundamentals of behaviour, both individual and international. It was this agreement that furnished the moral and sociological framework within which economic integration was rendered possible.

The international economic integration of the nineteenth century was manifested in the financial and commercial institutions of the period. The gold standard provided what was to all intents and purposes a universal money, which was the foundation of confidence in international payments. Adherence to the principles and practices of a world-wide monetary system imposed a limit on economic nationalism. The successful operation of the gold standard necessitated a certain discipline and the observance of certain “rules of the game.” International trade and the international movement of labour and capital were, compared with earlier and later times, remarkably free from restraint, with the result that the world division of labour was enabled to develop without unnecessary artificial impediments. A small number of the leading commercial countries pursued policies of free trade, and the tariffs of the protectionist countries were moderate in height and were altered at infrequent intervals. Long term commercial treaties, which were for the most part loyally observed, made possible the undertaking of future commitments. The general adoption of the most-favoured-nation principle prevented the development of bilateral arrangements and encouraged the formation of liberal trade policy. “Most-favoured-nation treatment and the gold standard were, indeed, the main pillars of world economy, but both were equally rooted in the general international order of that period and in the spirit which gave it life.”<sup>88</sup> What was that order and what was that spirit?

On the purely material level, the predominance of Great Britain, the leading exponent of the benefits of free trade, helped to preserve the international integration of the nineteenth century. The successful operation of the gold standard depended to some extent on the existence of a single financial centre of unchallengeable strength. The *pax*

<sup>87</sup> Bertrand Russell in *Freedom: Its Meaning*. Edited by N. Anshen, p. 229.

<sup>88</sup> Ropke, *op. cit.*, p. 76.

*Britannica* reproduced some of the features of the *pax Romana*. But the true explanation of the integration lay deeper than any imperial hegemony or financial leadership; it rested on moral foundations. The statesmen of the leading commercial countries in the nineteenth century paid at least lip-service to Christian principles which had survived in many cases Christian belief and Christian practice. From the days of Constantine until the rupture of western civilization, the Christian ethical system imposed upon European culture at least the semblance of moral agreement. Just as the economic man of the classical economists was an English gentleman of the early nineteenth century whose normal code was derived from Christian standards and traditions, the European nations at the same period were still governed mainly in the light of Christian principles of right and wrong. Europe was living upon inherited religious capital. "Moral insights, severed from their roots in dogma, lingered for a while as ethical conventions."<sup>89</sup> The agreement on ultimate ethical values without which international law is impossible was provided by the widespread acceptance of Christian standards. The existence of a natural law from which men derive natural rights against one another and against their rulers was generally assumed. This natural law, which represents a confluence of Greek, Roman and Christian thought, has been described as "the background and the presupposition of our civilization in the west."<sup>90</sup> "Every great civilization has been based upon the concept of the natural law—Dike, divine justice; Rita, the sacred order; Dharma, the norm; Tao, the way to heaven. . . . Objectively the natural law is expressed in sound social institutions and relationships such as responsible citizenship, strong and devoted family ties, freedom of association or the subordination of the State to the purposes of the community. Subjectively it is mirrored in the concern over right and wrong, the *pietas* of the Romans, the decency honour and integrity of average men and women. . . . Western civilization is permeated through and through with the influence of the natural law. . . . Torn from its anchorage in the will of God, it is nevertheless recognizably there in the rights of man. Until the nineteenth century the vast majority of men in Europe accepted even if they violated the natural law."<sup>91</sup> This law of nature, which recognized rights and correlative duties between men and between nations, was the foundation of the international law which preserved the high degree of integration in the nineteenth century.

The world to-day recognizes no such international morality. The causes of the disruption in world integration are difficult to trace in detail. It is partly the result, no doubt, of the unprecedented growth of an urban proletariat divorced from the traditional customs and standards of a simpler way of life. Dean Inge points out that the urban masses are secular and materialist, with "no religion and no superstitions," that they have revolted against intellectualism, are sentimental, undisciplined and hedonistic, and have rejected Christian morals and Hellenic culture.<sup>92</sup> The profound transformation of the world in the last hundred years has been analysed as a dissolution of the structure of society brought about by the formation of urban masses—*Vermassung, emmassement*. A parallel development has been the widespread acceptance of evolution based upon the struggle for survival by competing groups in nature and in society. Pareto's doctrine of the

<sup>89</sup> Micklem, *Theology of Politics*, p. x.

<sup>90</sup> *Ibid.*, p. xii.

<sup>91</sup> Barbara Ward in *The Spectator*, 29th May, 1942.

<sup>92</sup> Livingstone, *The Legacy of Greece*, p. 38.

emergence and domination of *élites* is a well-known example of these evolutionary ideas. M. Barzun has traced the course of the growth of the new philosophy of the struggle for survival by classes, races and nations, which he attributes to the influence of Darwin in biology, of Marx in sociology and of Wagner in art. "The new *realpolitik* was nothing but nationalism applied to class, race or country. Morality became a hindrance to success at the very time when science was questioning religious revelation in matters of geological fact. In the resulting *mêlée* ethics and religion went under. . . . By an easy transition came the new materialism. Things are in control, things are absolute, and mankind must learn their ways instead of trying to build Utopias on purpose or by design."<sup>93</sup> Professor Zimmern<sup>94</sup> suggests that the influence of Christian ethics was weakened by the admission to the concert of nations of Turkey and Japan. "The non-Christian nations have not been leavened by the Christian spirit and the momentum of the original Christian impulse is dying down in countries no longer Christian." Mr. Christopher Dawson<sup>95</sup> says that "During the nineteenth century, in the heyday of economic expansion and bourgeois prosperity, it seemed as though the world could get along very well if everybody looked after their own interests and agreed to differ on everything else. Men did not realize that they were living on the moral capital accumulated by a thousand years of Christian civilisation which would inevitably disappear as soon as a single generation had become completely secularized." Europe squandered the moral capital on which it had been living—"cultural and moral reserves carefully accumulated like humus on farm land and now social erosion is doing its pitiless work until in the worst cases society has been turned into a social Dust-Bowl."<sup>96</sup> With the decline in the acceptance of Christian standards of behaviour, the belief in natural law was undermined and with it disappeared the only possible basis for a binding system of international law. Europe has returned to the tribal worship of tribal gods. Marxism and national socialism agree in rejecting the conception of the natural law, however much they may differ about what should take its place. The socio-political framework within which international economic integration was possible was destroyed by the rejection of the universal code of international behaviour. "Goodwill and peace among nations are gone, and so not only free trade but even the international economic order had to go too. That is the whole story in a nutshell."<sup>97</sup>

The social and political disintegration and the economic disintegration mutually aggravate one another. Policies of self-sufficiency and planning injure the interests of neighbouring countries which retaliate with similar policies. The nations play the game of beggar-my-neighbour. The area of conflicts, frictions and jealousies widens and the social and political background becomes increasingly inconsistent with economic harmony. If all international dealings could be completely abolished the situation would not be so bad as it is in a world where a considerable amount of international trade is indispensable. The present combination of economic nationalism and the need for a rather large amount of international trade—a necessity brought about by production technique, the urbanization of population and the wants of this

<sup>93</sup> *op. cit.*, p. 363.

<sup>94</sup> *The Decline of International Standards*. International Affairs, 1938, p. 11.

<sup>95</sup> *The Papacy and the New Order*, Dublin Review, 1942, p. 113.

<sup>96</sup> Ropke, *op. cit.*, p. 262.

<sup>97</sup> *ibid.*, p. 77.

population—is giving international trade just the character which makes for a maximum of friction. This is a particularly vicious circle which leads to anarchy and ultimately to war. In place of the old standards based on natural law, new absolutes are being established. Nationalism has been elevated to a religion in which the interest of the national group is accepted as the ultimate measure of what is right and wrong. The traditional Christian standards have been replaced by the idealization of the State, as in fascism, or the idealization of the social process, as in marxism. In the countries where liberalism has survived the political ethic has come to be derived from the ballot box. Instead of politics deriving its values from an ethical system, current ethical judgments are based on political decisions. The majority is always right. A crude counting of heads is the only criterion of morality. The democratic countries are attempting to conduct their lives rationally when the old standards of rationality have been abandoned without new standards taking their place. "To-day it is the upholders of reason, if we accept Christianity, who have jettisoned the worship of the absolute ; it is the opponents of reason and the upholders of blind instinct who, under a different form, are tending towards it, though unconsciously and alas, in so travestied a fashion."<sup>98</sup>

The restoration of national societies and an international comity in which harmony of interests will replace disharmony is a political rather than an economic problem. It is a problem whose solution involves the creation of suitable institutions. Any discussion of the actual form which such institutions should take would raise some of the deepest matters of political controversy. One thing however may be said without fear of contradiction. No system can hope for any success that does not provide people with the things they desire. Current valuations must be accepted as part of the *data* of the problem to be solved. The totalitarian States owe their success to the fact that they have served the needs of the time, and no alternative type of system will be accepted as substitutes unless it serves those needs equally well. The non-material ends of existence must be served as well as the purely material. The maximization of output, regardless of its effect on social conditions, cannot be accepted as the sole end of economic activity. "The priority between economic and social welfare has been reversed ; public opinion now demands that the economic system should be made to work satisfactorily."<sup>99</sup> If the advantages of liberalism are to be restored, the social and political framework must be refashioned so as to ensure that there will be a concurrence rather than a conflict of interest in the economic sphere. The middle way between unregulated individualism and total planning will be found to depend upon securing a sufficient social and political integration to enable the forces of competition to work harmoniously. The integration of international economic relations depends upon reconciling national policies with military and economic realities. Economic nationalism is full of dangers in a world where military strategy and the technique of production call for a widening of national areas. The appropriate economic policies in the post-war world will probably call for some limitation on the right of absolute sovereignty. The programmes of all the belligerents, however differently expressed, agree in envisaging a greater degree of co-ordination in international economic relations. The right of self-determination by small nations may have to be exercised centripetally rather than cen-

<sup>98</sup> Vann, *St. Thomas Aquinas*, p. 168.

<sup>99</sup> Butler, *The Lost Peace*, p. 186.

trifugally if it is not to be abandoned on the ground of its undue cost.

History teaches the lesson that institutions are no substitute for standards. No political devices will succeed in reintegrating economic relations between men or between nations unless some general agreement can be found on moral judgments. The old doctrine of the law of nature is no longer universally accepted and something must be found to take its place. There must be some code commanding universal assent to provide norms of individual and international behaviour. The rights of man must be recognised anew. Every right implies correlative duties which must be emphasized. Many rights, exercised irresponsibly, have proved disintegrating factors, for example the rights of property and of free speech. "The nineteenth century became accustomed to think far more of the claims of the individual on society than of the claims of society on the individual. Rights were more important than obligations, benefits more conspicuous than services in the social balance sheet. Now that we have fallen on less prosperous days the perpetuation of this point of view threatens the social order with bankruptcy."<sup>100</sup> The rights of man imply the duties of rulers. The justification of sovereignty and the limits on the power of rulers over their subjects, the central problems of traditional political discussion in Western Europe, have been thrust aside in favour of a crude theory of power as its own justification. Recognition must be restored of the moral basis of sovereignty, if human freedom is to be reestablished. It must also be reasserted that nations have moral obligations towards each other. The principle of nationalism has been carried to a dangerous degree. Too much has been heard of the rights of nations and too little of their duties. The principle that treaties are binding, whatever the strength of the contracting parties, must be reaffirmed. In international relations, as in personal relations, intercourse is impossible in the absence of agreed standards of behaviour. In the nineteenth century, progress, measured by a utilitarian calculus and restrained by the tacit acceptance of Christian ethics, provided such a standard. The need for some agreed standards of behaviour between men and nations has been widely recognized since the outbreak of war. It is sufficient to refer to the Pope's Five Peace Points, the Ten Peace Points of the Christian communities in England and the Atlantic Charter to demonstrate the development of responsible opinion on this all-important matter. To adopt the terminology of the St. Simonians, we may say that the world is on the eve of a new organic period which will replace the period of criticism and negation which followed the dissolution of liberalism.

The realization of these hopes may, perhaps, not be so distant as it may appear to those who are sceptical regarding the sublimation of nationalism. It must be remembered that the nation-State is not the universal type of political association. The Greeks lived in small city republics, quite unlike any political organization in the world of to-day. The whole of Greek political theory is coloured by the institutional background of the city-republic. If this background is not constantly kept in mind, much of what Plato and Aristotle wrote is liable to be misinterpreted. Rome, at the height of its power, was the capital not of a nation-State but of a worldwide empire. The nation and the State are not identical in Eastern Europe to-day. It is the failure of the two groups to correspond that is responsible for insolubility of many frontier problems. Signs are not lacking that the modern nation-State is in process of being

<sup>100</sup> Carr, *op. cit.*, p. 121.

replaced by something smaller and by something larger. The current interest in regionalism and devolution on the one hand and in federalism on the other suggests that the categories of nationalism may be in process of development. Political economy has always assumed the existence of the sovereign national State as the unit of political organization and welfare. With the evolution of new political forms this assumption may require to be revised. The world has paid such a terrific price for the assertion of unbridled nationalism that public opinion may come to demand imperatively some integration of international relations. If such an achievement could be attained, the price of security would be an abridgement of sovereignty rather than a sacrifice of economic welfare. In that event the clash between security and progress, at least in the international sphere, would be resolved, and the way would be opened for the adoption of more liberal policies.

It is not for the economist to pronounce judgment on the ultimate valuations of men or of nations. Economics is ethically neutral in the sense that the economizing process is capable of taking place, and indeed must take place, whatever are the moral standards of the population which is being studied. The economist's function is to demonstrate that every course of action involves a cost, that no gain can be obtained without a corresponding loss, and that neither men nor nations can have things both ways. It is for the economist to point out that security and stability can be obtained only at the price of a slowing down of progress, that the advantages of a mature economic system may involve the countervailing disadvantages of rigidity and immobility and that the different objectives of social policy may be mutually incompatible. Defence may be secured only by sacrificing opulence, guns by going without butter, national self-sufficiency may involve a lowering of the standard of living. A choice has to be made between the attainment of the maximum of power and the maximum of wealth. No city can combine the virtues of Sparta with the charms of Athens. Throughout the whole economic field the principle of scarcity rules. Precisely as a man must allocate his income, his time and his energy between the satisfaction of competing wants, a nation must allocate its resources between the rival claims of rapid progress, social security, economic stability and military strength. "Whether or not economists are or should be interested in ends it is certainly their business to analyse the consequences which are likely to arise when national economies or groups within a national economy place before themselves ends which are inconsistent or contradictory. And it is also their business to make clear to those who decide to sacrifice material progress to some other objective exactly what they are doing. Sometimes the sacrifice which they are prepared to make is intended for the most part for other people and they should not be allowed to delude either themselves or other people into believing that they are going to get the best of both worlds."<sup>101</sup>

The principle of scarcity is universal and inescapable. Without it, there would be no material for economic science which is essentially concerned with the insufficiency of human resources for the satisfaction of human wants. There is no economics of infinity. While the economic man always labours under this limitation of scarcity, the circumstances surrounding his labours are capable of endless variations which influence his behaviour. The changes in institutions and in ultimate valuations

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<sup>101</sup> Fisher, *art. cit.*, p. 154.

that continue unceasingly make it necessary for the economist constantly to revise his generalizations. The laws which were applicable yesterday may have lost their relevance to-day, and the laws that are applicable to-day may become irrelevant to-morrow. We must not fall into the error of the classical economists in thinking that the historical processes that have been at work in the past will cease to operate in the future. Every economic system seems to contain the seeds of its own decay. Just as mercantilism merged gradually into liberalism which in its turn merged into different degrees of socialism, so our present institutions will gradually assume new forms which nobody can forecast. Prophecy by economists has always proved dangerous ground; the examples of Malthus and of Marx should prove an adequate deterrent. "If we look backward over history we can see how impossible it is to stand in one age and predict the social philosophy of the next. On what basis could anyone in the Roman Empire predict the peculiar philosophy of feudalism? How could the wisest man in the twilight of the middle ages have predicted the philosophy which glorified the trader and made human greed the foundation of justice and morals? How would it have been possible to have foretold the development of the great modern corporation out of a philosophy of rugged individualism?"<sup>102</sup> The one statement that can be safely made without undue temerity is that revolutions move forward and not backward. The institutions of to-morrow will not revert to those of yesterday. Every attempt to remedy the evils of the present by restoring the conditions of the past is doomed to failure. What is true of practice is no less true of theory; the problems of to-day cannot be solved by the theories of yesterday. With the emergence of new ways of life and of thought economic laws will need to be revised if they are to keep pace with reality. The laws of to-day will not on that account become untrue, but they will become irrelevant. Just as the laws of thermodynamics become irrelevant when the steam railway is electrified, so the laws of magnetism and electricity will become irrelevant if the railway comes to be operated by some new form of power, for example, atomic energy. Economists have ever stressed the desirability of maintaining a high degree of adaptability and flexibility in the industrial structure. They should be equally insistent upon the maintenance of resilience in economic theory.

This address has run to such excessive length that a short summary of the principal points in the argument may assist the weary auditor. Economists have been blamed for failing to do what they have never professed to do; they have been credited with powers which they never pretended to wield. Generalizations in the social sciences are necessarily of limited validity. Observation is subjective and frequently biased and the application of statistical methods presents peculiar difficulties. Many of the assumptions of economic analysis are provisional, and conclusions derived from them are therefore provisional. Many assumptions become invalid with the passage of time, and changing hypotheses call for revised conclusions. If the emphasis has been on the limitations rather than on the positive achievements of economic science, it is because the success of these achievements depends upon their being confined to the proper scope within which the economist can claim to speak with authority.

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<sup>102</sup> Arnold, *The Folklore of Capitalism*, p. 332-



## DISCUSSION ON THE PRESIDENT'S ADDRESS.

**Dr. R. C. Geary:** As a secretarial colleague of his for many years, I should like to say that Professor O'Brien's elevation to the Presidency of the Society gives me particular pleasure. One does not know which to admire the more in his Presidential Address, the deep erudition or the manner in which this erudition has been used to achieve a broad generalisation. Even in the section of the paper in which I venture to differ profoundly with him I admire the manner of presentation of his case; and the rest of the paper seems to me particularly valuable for its summarisation of the current trends of politico-economic thought.

I shall now state simply that I disagree with almost every word of the paper from the words "The place" on page 5 to the word "revision" on page 11. You must, of course, discount in advance much of what I have to say on this subject. I speak from the prejudiced viewpoint of the professional statistician. The President has, however, often described himself as a professional economist and as he has referred so shrewdly to this class in his Address he will probably agree that his own opinion is not quite free from prejudice on the other side.

He has often insisted that the purpose of economics is misunderstood, that, in particular, economic science has no ethical aspect. Whatever it is, theoretical economics is yet not a science. I would be inclined to agree with the President's view if and when it becomes a science, which, as in all sciences, can only happen when the phenomena pertaining to it are measured, in other words, when it develops on statistical lines. Then economic science may be non-ethical (i.e., neutral to ethics).

I have often thought that theoretical economists might with advantage apply their talents explicitly and exclusively to the ethical aspects of economics in which, as regards numbers of followers, Karl Marx and Major Douglas now predominate.

The President is certainly carrying the war into the camp of the enemy when he speaks (at the top of page 9) of the oversimplifications of statisticians. The fact that theoretical economics has not found a technique means that it must confine itself practically to single factor analysis; it must over-simplify.

The President's authorities on statistics generally seem unaware of the scope and possibilities of modern statistical method. Statistics now involve very much more than the compilation of accurate statistics. With the aid of mathematics it has developed a powerful technique of analysis, in particular for the ascertainment of relationship between measured phenomena, and there can be no doubt that in future there will be still greater development. I quite agree that one cannot be satisfied with existing economic statistics, but the improvement of statistics everywhere during the past few years suggests that all the statistics which the economist requires would have been available in the near future were it not for the war.

The principal usefulness of works on economics seems to me to be as repositories of information, historical, descriptive, statistical. It is true that they are also useful when they suggest possible relations between economic phenomena. But surely it is the rôle of the statistician to determine the degree of relationship, if any; within my own experience a few *a priori* theories have failed to pass

the statistical test. This also is clear from Professor Tinbergen's useful study. One would have thought that the most useful present function of the economist would have been to define the types of statistics to be collected and to agitate loud and long for more, better and fresher statistics. On this point it is a depressing but significant fact that economic statistics, despite their huge volume, are generally less suitable for scientific analysis and have received less scientific attention than any other kinds of statistics, for example, of population, genetics, biology, psychology, etc.

I do not contrast, therefore, what I regard as the futility of theoretical economics with the perfection of economic statistics. The development of both the statistics and the technique will be retarded unless people who want to know how the economic system works adopt a scientific attitude. In every country there is a crying need for statistical research in economics. This country could give the lead in this matter because our economic system is relatively simple and our economic statistics are fairly well developed.

There remains a few comments I would like to make on specific points in the President's paragraphs on statistics. Some play is made with the idea that the future is not predictable. This, of course, is true in a sense and in a degree. Yet the world is composed of 2,000 million people, 99 per cent. of whom want nothing so much as to do to-morrow what they did to-day and what they did yesterday. Their vast inertia is reflected in the, on the whole remarkable, degree of stability of economic statistics. If any relations have held good in the past between production, prices, rates of interest and so on, they will hold good, approximately, at least, in the future. Even if the President's authorities are right about the absolute unpredictability of the future, in so far as theoretical economics have any value other than historical, should not all theoretical economics be replaced by the four words "the future is unknown"?

In the final paragraph of the statistical section of the Address there is a suggestion that the statistician aspires to the establishment of rigid functional relations of universal validity between measured phenomena. Of course, this would be quite impossible though it is not impossible that the statistical economists will be able to define in advance the degree of validity of the functional relationships established.

I have great pleasure in proposing that the thanks of the Society be accorded to the President for his memorable Address.

**Professor G. A. Duncan**, seconding vote of thanks, said that the Society is to be congratulated on its selection of President. Of the many valuable papers which Professor O'Brien has contributed, this is one of the most profound and apposite.

Currently, both the nature of the economic system and the economist's relation to it are grossly misunderstood and misrepresented. Briefly, an economic system consists of the economic relations set up between men in their efforts to secure the production of the things they want to consume, within a non-economic framework which is highly and erratically unstable, and impinges directly on the working and results of the economic system. The commonest of vulgar errors is the attribution to the "economic system" (or even to economists) of the unhappy results following from convulsions in this environment. No conceivable economic system could have stood up, without disorganisation evidenced by unemployment and similar

symptoms, to the savage and erratic blows inflicted during the "dirty Thirties" by political ignorance, hysteria and aggression.

The function of the economist is to understand and explain the behaviour of men in their economic relations. *Full* understanding no economist would claim, still less the power to control either the relations or the environment; we may, however, hope that our knowledge, of both economic processes and their reactions when assailed by violent external eruptions, will continue to expand in volume and gain in precision, not without constant controversy on the spreading fringes.

Such increase of knowledge must be both theoretical and statistical. The beginning of wisdom must be the perception of a problem and the formulation of a working hypothesis—a piece of reasoning which may be a brilliant projection of existing knowledge, a pure guess, or a crazy misinterpretation of facts and causes. These hypotheses must then be subjected to a twofold examination, by experimental, historical or statistical methods: the logical and material validity of their causal sequences, and the truth of the factual premisses which they assume as previous knowledge. Further, the relevant statistical *data* might make possible the expression of qualitative "laws" in quantitative terms, i.e., affixing a precise value to the coefficients in the equations.

Statistical analysis is an indispensable handmaid of a full economic theory—but still a handmaid. No amount of collection and contemplation and manipulation of statistical *data* will of themselves ever advance by one *iota* our knowledge of economic behaviour: they become fruitful only as a means, but an indispensable means, of verifying provisional hypotheses and "quantifying" accepted solutions. The desirable "quantification" has been obstructed by the lack of appropriate statistical material, the shift in time of relations which must be pegged to a point of time, the obstinate refusal of *cetera* to remain *paria*, the mutual-dependence nature of all economic relations, etc.

Certain conditions alone make possible *any* consistent economic theory. They are the existence of *either* calculable behaviour on the part of the economic actors, *or* a distribution of types of behaviour among the actors to which the Law of Large Numbers applies, *or* both together. In the "modified exchange economy" which has hitherto been the economic condition of the vast majority of mankind, and therefore the primary subject of economic study, both these conditions existed in a complementary way; most economic subjects pursued their diverse ends with a certain, perhaps not very high, degree of rationality, and the lack of rationality was often redeemed from pure arbitrariness by the statistical "grouping" of individual behaviour. The famous fiction of the "economic man", long dead in serious discourse, was only an hypothetical short-cut. It is, on the other hand, clear that, if the opposite conditions prevailed—if the world were parcelled out into a small number of large economic despotisms (as may very well happen after this war)—then there would be little or no scope for economic theory, for the arbitrary and incalculable elements in every transaction would outweigh the calculable and intelligible, so far as to make the derivation of probable cause-and-effect relationships impossible.

**Rev. E. J. Coyne, S.J.:** I should like to add my voice to those of Dr. Geary and Professor Duncan in thanking and congratulating our new President on his inaugural address. Professor O'Brien's paper has impressed me by its wide sweep and scope, its opportune stressing of present needs, dangers, problems, its sound commonsense, clarity and philosophic depth.

During the past 25 years, and more, our President has been, as is only right for a member of the Banking Commission, creating large credits in his favour against the country, or put another way, we all have been piling up debts of gratitude to him on many accounts. He has, in the first place, enriched Irish economic studies by his many books, solid, useful, scientific and practical volumes on the most varied economic topics. He has, secondly, given lavishly of his time, energy and learning to the task of advising and guiding Irish Governments on numerous commissions and committees—in so far as Governments are amenable to guidance. Above all, he has, with altogether remarkable zeal, devoted the major part of his, still happily young, life to the moulding of the minds of the future governors and administrators of this country. On his success in this last task will depend more and more the happiness, prosperity and peace of most of us, whose lives, one fears but knows, will more and more be brought under the control of such administrators.

The very title of the address gave me a slight shock. Being trained in a school of philosophy that believes in the absolute above all in the absolute nature of truth and of certain types of law, I fear that I could not go all the way with the President. After all, economic science, if it is a science, cannot be merely the efforts of a relatively blind man in a relatively dark room looking for a relatively black cat which relatively is not there. If this is what economics is, we should be wiser to devote our time to other subjects.

I can only touch on two points of this learned and thoughtful paper: and these are the first two of the summary. I hold it as certain that for a fruitful and beneficial study of the economic activity of human beings, an economist must be violently "biased". Naturally he will not have a pre-conceived notion of what he is determined to find in his analysis nor of what solution or remedies to apply to problems or ills. But surely an economist—and indeed every true scientist—should begin his investigations with well reasoned convictions, soundly based and firmly held conclusions from other sciences on many vital matters. An economist should not try to empty his mind of truths proved in other spheres of knowledge: he cannot think completely in an isolated and insulated chamber: his brain cannot and should not be "vacuumised". And these convictions, these truths, should (for such is their very purpose) guide and influence him, should "bias" him when he comes to study one small section of human activity.

For instance, an economist must and should come to his special study with a rock-like conviction concerning certain problems of metaphysics: I mention but two. Is there, in the world which he is investigating, a dualism of spirit and matter—or is there a pure monism of material being? To my mind that is a most relevant question for an economist or any scientist. Moreover, is there in this world an absolute hierarchy of values, something not merely relative, but objectively scaled in importance and significance?

Then in the realm of epistemology, an economist must make up

his mind on the capability of the human mind to reach absolute truth, on the criteria of truth, on the degrees of certitude.

But above all, I believe most ardently and am glad of the chance of professing this belief, that an economist is both unscientific and wrong in trying to prescind from his well-grounded convictions in the sphere of ethics. Why on earth should he? If I know with absolute and scientific certitude the end and purpose of human life and activity, why should I deliberately forget this scientific datum when I come to study one department of human activity? Any particular or special human activity must, of its very nature, be subordinate to the general laws governing all human activity. Otherwise human life ceases to have any stable meaning at all: we are studying the smile of the Cheshire cat without the cat. It is of vital scientific importance for an economist to hold convictions on the final end as well as intermediate ends, of all human life. If he does not, he ceases to be a realist at all, and his economic conclusions are not even relatively true. Economic goods must fit into a scale of goods and must be subordinated and form a due part of an integral human good, which will harmonise all partial goods.

No one has the right, I venture to say, to undertake the study of a small section of human activity and life, such as economics, unless he has made up his mind about those wider ends and unless he is guided by his convictions about them. It is vital for an economist to know whether human activity should be guided by moral precepts or whether it is purely deterministic. He must know whether justice or honour or charity has any part in the integral human good of which economic welfare forms but a small and transient part.

**Dr. Henry Kennedy**, having paid tribute to erudition of the President, stated that like most economic dissertations it conveyed to the layman little hope in the practical guidance that the economist could give. He was reminded of the statement in the memoirs of an elder statesman on World War I, that the generals were always busy preparing for the last war. So with the economists—indeed they did not succeed very well in explaining even the past. As a layman he had read a number of books on the cause of the great slump of 1930. One began the reading with the same optimism—notwithstanding previous disappointments—as one began the reading of the latest detective story. The excitement rises and the hope of a reasonable denouement increases, but the result was invariably disappointment. Nothing was explained.

He thought Dr. Geary was on a much sounder basis. Speaking again as a layman he could definitely say that the only economic literature—and of course his experience was limited—was that based on statistical material.

**Mr. Blythe**, supporting the vote of thanks, said that Dr. O'Brien's paper was one of the ablest and most important which had ever been read before the Society. He was in agreement with the lecturer's argument generally. He thought, however, that it was not right to compare economists to doctors who could treat and prescribe for the economic illnesses of nations. The critical feeling which politicians and public administrators showed towards economists arose partly from the claim made impliedly or expressly by some economists to be able to prescribe cures for social evils. People might argue that economists were like doctors in that they could diagnose social diseases. He (Mr. Blythe) was not by any means sure of that, and

he was certain that economists could not prescribe for social ills. Economists spent their time looking backwards trying to analyse conditions that had partly passed away and to estimate the importance of causes which had ceased to operate. The politician looked at things as they stood, and as they seemed likely to be to-morrow. He might sometimes act rashly, but even the rashest of his acts would do less harm than might result from a failure to heed a natural and insistent public clamour for something to be done. If the politician listened to economists so much that he decided for inaction at a moment when people suffering great hardships insisted on action, disasters might occur far greater than would ever result from even mistaken efforts to put things right by action. If economists generally, including popularisers of economics, were as reasonable and as realistic in their attitude as the President, the politician would cease to regard the economist as a "pain-in-the-neck" and would be more rather than less influenced by the teachings of those whose life work is the study of economic problems.

**Mr. J. C. M. Eason** desired to add his tribute to those which had already been paid by previous speakers to the value of the paper read by the President. The paper dealt with many subjects which were of great interest at the present time, and he suggested that the Council should consider the desirability of publishing it.

Referring to the comments by Fr. Coyne, and the references to the problem of harmony of interests made by the President in the course of the paper, Mr. Eason expressed the view that no complete harmony could be achieved on the purely material plane.

Fr. Coyne had mentioned the need for some fixity of belief and purpose in life, and this, it would appear, was closely allied to the need of routine upon which civilisation was largely based. The ordinary person required a certain amount of routine and could not stand the strain of frequent changes. This raised in his mind the problem of how to reconcile this situation with the conception of change which was so frequently referred to in the paper. The growing tendency towards rigidity, the need for stability, the desire for security, were all expressed in paragraphs of the paper, and any economic programme must adopt some definite background in connection with this paradox.

Quoting from Lord Stamp, he pointed out that it was necessary to decide whether change was to be regarded as a normal condition and rest merely as an interval in the continuing process, or whether rest was normal and change an exceptional incident. A different technique was required according to the view accepted. If the latter, then one would require to provide anchors and grappling irons and other devices to insure stability. If the former, then shock-absorbers, castors and roller bearings to make the transition less painful for the individual citizen. His own view was that in a universe "in which existence is synonymous with change time always works against the maintenance of the status quo".

Not only, however, must the motion of change be accepted as dominant, but we must recognise that change is now taking place more rapidly than of old. Professor Whitehead said that formerly the time span of important change spread over a longer period than the duration of human life. To-day's time span is shorter than that of the single life and that renders it more urgent than ever that

people should be prepared for the high demand being made on their powers of adaptability.

Dealing with the reference to restoration of order in the world, the President had suggested (on page 29) that political rather than economic action was necessary. Mr. Eason quoted as against that the view of Professor Carr that the economic reorganization was a fundamental factor, and he also referred to the view of Professor Whitehead, that whatever else might be true in connection with the Marxian theories, the real significance of their teaching was to be found in the stress laid upon the economic urge as the fundamental factor in life. Whatever ideal conceptions the governing class, whether a dictator or a government, may have they were bound to pay regard to the well-being of the masses.

**Mr. Maddock** said that he was sure that it was a source of great pleasure to the Members of the Society and to none more than the President that Dr. Geary had been able to contribute such an able and lively rejoinder to that part of the Address which dealt with the value of statistics in economic analysis. The speaker had a sense of divided loyalties in regard to the friendly controversy which had developed between the two distinguished protagonists since he had spent four years studying economics under Dr. O'Brien and four years studying statistics under Dr. Geary and if his ability had been in keeping with the reputation enjoyed by his tutors he might have become an economist or a statistician. Judging by what had been said that night that would have been a very black fate indeed.

In so far as it was possible to make conjectures at all in matters of this nature it would appear that what are termed the pure sciences had a philosophical background and followed from man's speculations about the nature of the things which surrounded him. In comparatively recent times the science of physics was known as natural philosophy. It might be conjectured that man's first endeavours in the field of scientific observation were to classify the objects which he saw round him and affected him. Time was classified into nights, days and months and concrete objects which presented the same external characteristics received the same name. It might be surmised that the idea of enumeration followed that of classification and it was a moot point whether the man who first discovered that he had only the use of ten fingers had contributed most to economics, statistics or mathematics. The idea of scientific laws emerged when it was discovered that the objects classified had certain permanent inter-relationships and modes of behaviour.

Whatever may be the value of the foregoing conjectures there is no doubt that to the ordinary man the term "scientific methods" connotes the idea of classification and the ascertainment of certain permanent relationships known as scientific laws. If the problem of economic analysis is appreciated on the basis of scientific methods there is very little doubt that the descriptions "economist" and "economic statistician" are differences of terminology rather than of function. The great difficulty confronting economists has been that of classification, the grouping of known facts relating to economic behaviour into separate categories which exhibit the same characteristics or characteristics differing or changing by measurable degrees. It is suggested that when the "economist" and the "economic statistician" tackle this problem that they cease to have any difference in function. The "economist" is dealing with the known facts but the unknown

facts may be at least equally important and it is the business of the "economic statistician" to ascertain these facts. The "economic statistician" if he is to seek intelligently for the required facts must be keenly aware of the problem which requires solution and the most likely avenue of approach and he has in fact ceased to be purely a statistician and becomes an economist utilising his statistical ability in the solution of a problem in economics. It would seem that in approaching the problem that the "economic statistician" has an advantage over the "economist" in that not alone does he know what he is seeking but that he has experience which helps him in his search for it. In searching for economic laws or for the permanent inter-relationships between classified categories of facts the "economic statistician" also enjoys an advantage in that he is able to measure the degree of inter-relationship between the categories in accordance with statistical formulæ. It would be easy, however, to magnify the relative advantages of the one as compared with the other since the true position appears to be that the "economist" must be something of a statistician and the "economic statistician" an economist in everything except name. The terms imply a division of labour which a comparison of functions does not support. Professor Duncan's remark that some of the statistics turned out in connection with administrative purposes are valueless in economic analysis is a further argument that statisticians and economists should strive to understand each other's work thoroughly since all statistics relating to economic endeavour will surely find their allotted place and importance when the working of the economic organisation is more completely understood as the science of economics develops.

In conclusion the speaker said that it was altogether unnecessary for him to say anything in praise of the President's address. He appeared to be the only past student of the President who had spoken that night and he would much prefer to pay a personal tribute to the President for the amiable, ceaseless and painstaking interest which he took in every student in his classes in University College, Dublin. He felt that he was merely making articulate the feelings of all Dr. O'Brien's students, past and present, when he paid him that tribute.

**Mr. P. S. O'Hegarty** said that he desired to put briefly three points: first, that statistics were fallible and were useless save for the purpose of answering Parliamentary questions; second, that the mental diarrhœa which had overtaken every other sphere of thought seemed now to be overtaking economic thought. He traced that back to William James, whose pragmatist philosophy, rejected by most philosophers thirty years ago, had crept back as Relativity, a theory emerging without principles, whose sponsors not alone cannot agree amongst themselves upon what they mean but who cannot individually remain of one mind upon essential points for more than a couple of months, whose standard of truth appeared to be "does it work?" Now that appeared to be creeping into economics. He suggested that there were two fundamental economic principles, one that no country should spend money which it has not got, and second that no able-bodied adult should be kept in idleness by the working community, and that the general disregard of them, while they might work, was wrong. Finally he said that man is not an economic animal, never has been, and never will be, that the economic interpretation of history is nonsense, and that man is moved not by materialist considerations but by ideas and principles.