



**"Economic Science and Statistics." The Address of the President of Section F
of the British Association, at the Fifty-Fifth Meeting, Held at Aberdeen, in
September, 1885**

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“ECONOMIC SCIENCE *and* STATISTICS.” *The ADDRESS of the PRESIDENT of SECTION F of the BRITISH ASSOCIATION, at the FIFTY-FIFTH MEETING, held at ABERDEEN, in SEPTEMBER, 1885. By PROFESSOR HENRY SIDGWICK, M.A., LITT. D.*

I HAVE chosen for the subject of the discourse, which by custom has to be delivered from the chair that I am called upon to occupy, the scope and method of economic science, and its relation to other departments of what is vaguely called “social science.” If the abstract and academic nature of the subject, together with my own deficiencies as an expositor, should render my remarks less interesting to the audience than they have a right to expect, I trust that they will give me what indulgence they can; but, above all, that they will not anticipate a corresponding remoteness from concrete fact in the discussions that are to follow. I see from the records of the Association that it has been the custom in this department—and it seems to me a good custom—to give to the annual addresses of the presidents the variety that naturally results when each speaker in turn applies himself unreservedly to that aspect of our complex and many sided inquiry which his special studies and opportunities have best qualified him to treat; and as my own connection with economic science has been in the way of studying, criticising, and developing theories, rather than collecting and systematising facts, I have thought that I should at any rate have a greater chance of making a useful contribution to our discussions if I allowed myself to deal with the subject from the point of view that is most familiar to me.

I have the less scruple in adopting this course because I do not think that any who may listen to my remarks are likely to charge me with overrating the value of abstract reasoning on economic subjects, or regarding it as a substitute for an accurate and thorough investigation of facts instead of an indispensable instrument of such investigation. There is indeed a kind of political economy which flourishes in proud independence of facts, and undertakes to settle all practical problems of governmental interference or private philanthropy by simple deduction from one or two general assumptions—of which the chief is the assumption of the universally beneficent and harmonious operation of self-interest well let alone. This kind of political economy is sometimes called “orthodox,” though it has the characteristic unusual in orthodox doctrines of being repudiated by the majority

of accredited teachers of the subject. But whether orthodox or not, I must be allowed to disclaim all connection with it; the more completely this survival of the *à priori* politics of the eighteenth century can be banished to the remotest available planet, the better it will be, in my opinion, for the progress of economic science. Since, however, this kind of political economy is still somewhat current in the market place, since the language of newspapers and public speakers still keeps up the impression that the professor of political economy is continually laying down laws which practical people are continually violating, it seems worth while to try to make clear the relation between the economic science which we are concerned to study and the principles of governmental interference—or rather non interference—which are thought to have been of late so persistently and in some cases so successfully outraged.

It must be admitted at once that there is considerable excuse for the popular misapprehension just mentioned; since for more than a century the general interest taken in the analysis of the phenomena of industry has been mainly due to the connection of this analysis with a political movement towards greater industrial freedom. No researches into the historical development of economic studies before Adam Smith can displace the great Scotchman from his position as the founder of modern political economy considered as an independent science, with a well marked field of investigation and a definite and peculiar method of reasoning. And no doubt the element of Adam Smith's treatise which makes the most impression on the ordinary reader is his forcible advocacy of the "system of natural liberty;" his exposition of the natural "division of labour"—tending, if left alone, to become an international division of employments—as the main cause of the "universal opulence" of "well governed" societies; and of the manner in which, in this distribution of employments, individual capitalists seeking their own advantage are led "by an invisible hand" to "prefer that employment of their capital which is most advantageous to society."

At the same time Adam Smith was too cool and too shrewd an observer of facts to be carried, even by the force and persuasiveness of his own arguments, into a sweeping and unqualified assertion of the universality of the tendency that he describes. His advocacy of natural liberty in no way blinds him to the perpetual and complex opposition and conflict of economic interests involved in the unfettered efforts of individuals to get rich. He even goes the length of saying that "the interest of the dealers in any particular branch of trade or manufacture is always in some respects different from, and even opposite to, that of the

“public.” To take a particular case, he is decidedly of opinion that the natural liberty of bankers to issue notes may reasonably be restrained by the laws of the freest governments. He is quite aware, again, that the absence of governmental interference does not necessarily imply a state of free competition, since the self-interest of individuals may lead them, on the contrary, to restrict competition by “voluntary associations and agreements.” He does not doubt that governments, central or local, may find various ways of employing wealth—of which elementary education is one of the most important—which will be even economically advantageous to society, though they could not be remuneratively undertaken by individual capitalists. In short, however fascinating the picture that Adam Smith presents to us of the continual and complex play of individual interests constituting and regulating the vast fabric of social industry, the summary conclusion drawn by some of his disciples that the social production of wealth will always be best promoted by leaving it altogether alone, that the only petition which industry should make to Government is the petition of Diogenes to Alexander that he would cease to stand between him and the sunshine, and that statesmen are therefore relieved of the necessity of examining carefully the grounds for industrial intervention in any particular case—this comfortable and labour-saving conclusion finds no support in a fair survey of Adam Smith’s reasonings, though it has been no doubt encouraged by some of his phrases. To attribute to him a dogmatic theory of the natural right of the individual to absolute industrial independence—as some recent German writers are disposed to do*—is to construct the history of economic doctrines from one’s inner consciousness.

It is true, as I have said, that among Adam Smith’s disciples there were not a few who rushed to the sweeping generalisations that the master had avoided. In England, in particular, the influence of the more abstract and purely deductive method of Ricardo tended in this direction. It was natural, again, that in the heat of a political movement absolute and unqualified statements of principle should come into vogue, since the ease and simplicity with which they can be enunciated and apprehended makes them more effective instruments of popular agitation: hence it is not surprising to find the anti-corn-law petitions declaring the “inalienable right of every man freely to exchange the result of his labour for the productions of other people,” to be “one of the principles of eternal justice.” But under the more philosophic guidance of J. S. Mill, English political economy shook off all

* *E.g.*, v. Scheel, in Schönberg’s “*Handbuch der politischen Oekonomie*,” p. 89, speaks of “*Die naturrechtliche Wirtschaftstheorie oder der Smithianismus*.”

connection with these antiquated metaphysics, and during the last generation has been generally united with a view of political principles more balanced, qualified, and empirical, and therefore more in harmony with the general tendencies of modern scientific thought.

If, indeed, *laissez-faire* were—as many suppose—the one main doctrine of modern political economy, there can be no doubt that the decisive step forward that founded the science ought to be attributed not to Adam Smith, but to his French predecessors the “Physiocrats.” It is to them—to Quesnay, De Gournay, De la Rivière, Turgot—that the credit, whatever it may be, is due of having first proclaimed to the world with the utmost generality and without qualification that what a statesman had to do was not to make laws for industry, but merely to ascertain and protect from encroachment the simple, eternal, and immutable laws of nature, under which the production of wealth would regulate itself in the best possible way if men would abstain from meddling.

This doctrine formed one part of the impetuous movement of thought against the existing political order which characterised French speculation during the forty years that preceded the great revolution. It was, we may say, the counterpart and complement of the doctrine of which Rousseau was the chief prophet. The sect of the *économistes* and the disciples of Rousseau were agreed that the existing political system needed radical change; and in both there was a tendency to believe that an ideal political order could at once be constituted. At this point, however, their courses diverged; the school of Rousseau held that the essential thing was to alter the *structure* of government, and to keep legislation effectually in the hands of the sovereign people; the *économistes* thought that the all-important point was to limit the *functions* of government, holding that the simple duty of maintaining the natural rights of the individual to liberty and property could be best performed by an absolute monarch. Both movements had much justification; both have had effects on the political and social life of Europe of which it is difficult to measure the extent; but both doctrines—attained, as they were, by a fallacious method—involved a large element of exaggeration, suitable to the ardent and sanguine period that brought them forth, but which gives them a curious air of absurdity when they are resuscitated and offered for the acceptance of our more sober, circumspect, and empirically-minded age. In the most civilised countries of Europe it is now a recognised and established safeguard against oppressive laws that an effective control over legislation is vested in the people at large; but no serious thinker would now maintain with Rousseau that the predominance of the will of the sovereign people has a necessary

tendency to produce just legislation. Similarly, the doctrine of the Physiocrats has prevailed, in the main, as regards the internal conditions of national industry in modern civilised societies. The old hampering privileges, restraints, and prohibitions have been almost entirely swept away, to the great advantage of the community; but the absolute right of the individual to unlimited industrial freedom is now only maintained by a scanty and dwindling handful of doctrinaires, whom the progress of economic science has left stranded on the crude generalisations of an earlier period.

There will probably always be considerable disagreement in details among competent persons as to the propriety of governmental interference in particular cases; but, apart from questions on which economic considerations must yield to political, moral, or social reasons of greater importance, it is an anachronism not to recognise fully and frankly the existence of cases in which the industrial intervention of Government is desirable, even with a view to the most economical production of wealth. Hence, I conceive, the present business of economic theory in this department is to give a systematic and carefully reasoned exposition of these cases, which, until the constitution of human nature and society are fundamentally altered, must always be regarded as exceptions to a general rule of non interference. The statesman's decision on any particular case it does not belong to abstract theory to give; this can only be rationally arrived at after a careful examination of the special conditions of each practical problem at the particular time and place at which it presents itself. But abstract reasoning may supply a systematic view of the general occasions for governmental interference, the different possible modes of such interference, and the general reasons for and against each of them, which may aid practical men both in finding and in estimating the decisive considerations in particular cases. Thus it may show, on the one hand, under what circumstances the inevitable drawbacks of governmental management are likely to be least, and by what methods they may be minimised; and where, on the other hand, private enterprise is likely to fail in supplying a social need—as where an undertaking socially useful is likely for various reasons to be unremunerative to the undertakers—or where private interests are liable to be markedly opposed to those of the public, as is generally the case with businesses that tend to become monopolies.

It would be tedious now to dwell at more length on these generalities; but there is one special exception to the triumph of the system of natural liberty in the civilised countries of Europe which has too much historical importance to be passed over without

a word in this connection. As we are all aware, this triumph has only been decided as regards the *internal* conditions of industry and trade; the practice of imposing barriers on *international* exchange, with a view to the protection of native industry, still flourishes in the most advanced communities, and shows no immediate tendency to come to an end. It is not, I conceive, reasonable to attribute this result entirely, as some free-traders are disposed to do, to the incapacity of mankind to understand elementary economic truths, and the interested efforts of a combination of producers to prey in a comfortable and legal way on the resources of the confiding consumers. I do not deny that both these causes have operated; but in view of the evident ability and disinterestedness of many of the writers and statesmen who have supported the cause of protection on the continent or in the United States, I cannot find in them an adequate explanation of the phenomenon.

A part of the required explanation is, I think, suggested when we examine the arguments by which free trade was actually recommended to intelligent Englishmen at the time when England's policy was taking the decisive turn in the direction, and imagine their effect on the mind of an intelligent foreigner. Suppose, for instance, that the intelligent foreigner is studying the "Edinburgh Review" in 1841, when it came forward as a vigorous and decided advocate of free trade. In the January number he would find the cosmopolitan and abstract argument with which we are so familiar; he would learn how, under free trade, "every country will exert itself in the way that is most beneficial in the production of wealth;" how labour and capital will be employed in each country to produce those things which the varieties of climate, situation, and soil enable it to produce with greater advantage than other countries, so that "the greatest possible amount of industry will be kept constantly in action, and all commodities will exist in the greatest abundance." But in the July number of the same organ he would find a recommendation of free trade from a national point of view, which, though more restricted in its scope, would appear to contain matter no less important for practical consideration. He would find that the immediate introduction of free trade was held to be essential in order to keep what remained of the manufacturing and commercial supremacy of England. He would learn that "the early progress of any nation that attempts to rival us in manufactures must be slow;" for "it has to contend with our great capital, our traditional skill, our almost infinite division of labour, our long-established perseverance, energy, and enterprise, our knowledge of markets, and with the habits of those who have been bred up to be our customers." He would learn that there was "no reason

“to believe that,” in the “absence of disturbing causes,” we should ever lose our present command of the world’s market; that we might have preserved our superiority for centuries; but that “if these difficulties were once surmounted, this superiority—so far at least as respects the commodity in which we find ourselves “undersold—would be gone for ever,” in consequence of “the well known law of manufacturing industry that, *ceteris paribus*, “with every increase of the quantity produced, the relative cost “of production is diminished.” It cannot be denied that a consideration of this law, and of the *vis inertiae* here attributed to an established superiority in manufactures and commerce, supplies an important qualification of the general argument for free trade. For, along with the tendency of industry to go where it can be most economically carried on, we have also to recognise a tendency for it to stay and develop where it has been once planted; and the advantage of leaving this latter tendency undisturbed would naturally be less clear to the patriotic foreigner than to the patriotic Englishman. The proclamation of a free race for all, just when England had a start which she might probably keep “for centuries,” would not seem to him a manifest realisation of eternal justice; to delay the race for a generation or two, and meanwhile to apply judiciously “disturbing causes,” in the form of protective duties, would seem likely to secure a fairer start for other nations, and ultimately, therefore, a better organisation of the world’s industry even from a cosmopolitan point of view.

Nor would it seem to him a conclusive argument against this course that protective duties impose great present pecuniary sacrifices on the protecting nation; especially when he learnt, from an impartial English source, of the great sacrifices which private capitalists in England were in the habit of making to assist the tendency of free competition in their favour. He would find, for instance, in the report of a commission published in 1854,* an appeal to the working classes to consider “the immense losses “which their employers voluntarily incur in bad times, in order to “destroy foreign competition, and to gain and keep possession of “foreign markets.” Should the efforts of trade unionists, urges the writer, be successful for any length of time, they would interfere with the “great accumulations of capital which enable a few of “the most wealthy capitalists to overwhelm all foreign competition “in times of great depression,” and which thus constitute “the “great instruments of warfare against the competing capital of “foreign countries.” If it was the view of shrewd English men

* See p. 20 of Report by Mr. H. S. Tremenehere, commissioner appointed to inquire into the operation of Act 5 and 6 Vict., cap. 99, and into the state of the population in the mining districts (vol. xix of Parl. Papers for 1854).

of business that these great sacrifices of private wealth were needed, and were worth making, to maintain the industrial start once gained, the intelligent foreigner would naturally conclude that the other combatants in the industrial battle must be prepared to make corresponding sacrifices; that each nation must fight with its own weapons; and that where there were no great accumulations of capital in private hands, the instruments of warfare must be obtained by a general contribution.

I have given these considerations, not because I agree with the practical conclusion which they tend to support, but because I think that they require to be met by a line of argument different from that which English economists have usually adopted. I think it erroneous to maintain, on the ordinary economic grounds, that temporary protection must always be detrimental to the protecting country, even if it were carried out by a perfectly wise and strong Government, able to resist all influences of sinister and sectarian interests, and to act solely for the good of the nation. The decisive argument against it is rather the political consideration that no actual Government is competent for this difficult and delicate task; that protection, as actually applied under the play of political forces, is sure to foster many weak industries that have no chance of living without artificial support, and to hamper industries that might thrive independently by the artificial dearness of some of their materials and instruments; so that it turns out a dangerous and clumsy, as well as a costly, instrument of industrial competition, and is not likely, on the whole, to bring the desired victory, though it may give a partial success here and there. And some such conclusion as this is, I think, now prevalent even among those German economists who are most decided in their rejection of the claims of *laissez-faire* to absolute and unqualified validity.

So far I have been speaking of the function of economic science in determining principles of governmental intervention in matters of industry, because this is the function prominent in the popular view of political economy. But I need hardly say to the present audience that this is not the view that English economists generally have taken as to their primary business. Indeed, during the last generation our leading economists—even those who come nearest to the so-called “orthodox” type—have gone even further than I should myself go in declaring that economic science had nothing to do with the doctrine of *laissez-faire*. No one (*e.g.*) has stated this more strongly than Cairnes, whom I select as a conspicuous and effective advocate of free trade. “The maxim of *laissez-faire*,” he says, “has no scientific basis whatever;” it is a “mere handy rule of practice,” though “a rule in the main sound.” According to this view, the “laws” with which economic science

is primarily concerned are the laws that would determine economic quantities—the amount of the aggregate of wealth, its annual increase, the relative values of its different elements, and the shares of the economic classes that have combined to produce it—as they would be apart from special governmental interference, and not the rules for deciding when and how far such interference is justifiable.

And it is the additional light that Adam Smith threw on the general determination of such economic quantities—and not his advocacy of natural liberty—which in the view of economists constitutes his chief claim to his place in the historical development of economic science. And I may observe that, from this point of view, the important predecessors of Adam Smith are not the physiocrats only, but even more Cantillon, who wrote a generation earlier, to whom Jevons drew attention some years ago in a remarkable essay, and—if I may go back to the seventeenth century—Sir W. Petty, who has a special interest for us as a pioneer in each of the two lines of investigation of which I trust this section so long as it exists will always maintain the union, since he was the first in England to combine a serious effort to establish the general relations of economic quantities by abstract reasoning and analysis with patient endeavours to ascertain particular economic facts by statistical inquiries. When we trace the gradual evolution of the modern economic view as to the manner in which the play of individual self interests tends to determine prices and shares—from the rude beginnings of Petty and Locke, through the more systematic and penetrating theory of Cantillon, the fuller analysis and exposition of Adam Smith, and the closer reasoning of Ricardo, down to the important rectifications and additions of Jevons—we see clearly that the progress of the theory has no necessary connection with any doctrine as to the limits of the industrial intervention of Government.

And it is to be observed that neither Adam Smith nor the predecessors to whom I have referred had any idea of suggesting that the distribution which they were endeavouring to analyse satisfied either the claims of ideal equity by giving each individual his deserts, or the claims of expediency by giving him what was most conducive to general happiness. Nor, since Adam Smith, has any leading English economist maintained the former of these propositions; and so far as the school of Ricardo may have seemed to maintain the latter—so far as they certainly have taught that direct governmental interference with distribution was undesirable—it has not been from any prevalence among them of the shallow optimism of Bastiat and his followers. It is pessimism rather than optimism which is to be laid to their charge; not a disposition to

underrate or ignore the hardships that the "natural" rate of wages might entail; but a conviction that, however bad things might be naturally, the direct interference of Government could only make them worse. I am not arguing that they did not go too far in this view; I am now chiefly desirous to remove a profound and widespread misunderstanding as to the general aim and drift of their investigations, which I find in certain German and other continental critics of English political economy, and, I may add, in certain English critics who repeat the foreign objections. Such critics either fail to see, or continually forget, that the English economist, in giving an explanation of the manner in which prices, wages, profits, &c., are determined, is not attempting to justify the result; he is not trying to show that in getting the market price of his services the labourer, capitalist, or landlord gets what he deserves. Thus when Senior called interest the "reward of abstinence," he did not mean to imply that it was normally proportioned to the capitalist's merit in abstaining, but merely that capital is increased by individuals saving instead of spending, and that they require the inducement given by the actual rate of interest to save to the extent to which they actually are saving. Whether any other rate of interest would be *juster* is a question of ideal politics to which the English economist has usually nothing to say so long as it is stated in this abstract form; it is only when the political idealist descends to practice, and proposes a scheme for realising his conception of justice, that it comes within the province of his science to discuss the probable effects of this scheme on production and distribution. But it is not with such hypothetical problems that the English economist conceives himself to be mainly concerned; his primary business is to ascertain the causes which determine actual prices of products and services.

Hence, when the most recent German school of economists—variously known as the "historical," "ethical," or "social" school—claims to have moralised political economy by throwing over the assumption of egoism, which they regard as characteristic of "Smithianism," they usually appear to the English economist to confound what is with what ought to be. The assumption that egoism ought to be universal—that the universal prevalence of self interest leads necessarily to the best possible economic order—has never been made by leading English writers; and it is an assumption with which they generally conceive themselves in no way concerned—in that part, at least, of the science which deals with distribution. It is the actual prevalence of self interest in ordinary exchanges of products and services which constitutes their fundamental assumption.

But I admit that this reply does not end the controversy. The

critic may rejoin that, if egoism is not what it ought to be, the tranquil way in which the economist treats it as universally predominant is objectionable, as tending to give dangerous encouragement to the baser side of human nature. And, secondly, he may deny that self interest actually has any such predominance as English economists assume ; hence, he may argue, their fundamental assumption must lead to serious errors in the analysis and forecast of actual facts.

The first of these points I should concede to some extent. If we regarded it as blameworthy that a man should, under ordinary circumstances, try to get the highest price for any commodity he sells, and give the lowest for what he buys, then, though the analysis of economic facts, as they exist in the present selfish and wicked world, might still be conducted on the present method, I certainly think its results ought to be—and would be—expounded in a different tone. I should say, therefore, that our economists generally do not hold to be censurable, in a broad and general way, the self regard which they assume as normal. I conceive, however, that this view is commonly held with the following important qualifications.

Firstly, it is not implied that the right of free exchange ought not to be legally limited in respect of certain special commodities. Thus, when it is urged by statesmen or philanthropists that the sale of opium, or brandy, or lottery tickets, or children's labour ought to be prohibited or placed under certain restrictions, the political economist, as such, is not to be regarded as holding a brief on the other side—at most he only throws the *onus probandi* on those who advocate interference, adding perhaps a warning that the consequences of their measure may possibly be different from what they anticipate, owing to the play of ordinary self regard working under the new conditions that they aim at imposing.

Secondly, it is not implied that similar limitations may not be effectively imposed by the force of moral opinion. It has, indeed, to be pointed out that morality, like law, may produce effects other than what are designed—*e.g.*, that the discredited attaching to usury may cause the unhappy debtor to pay more instead of less for his inevitable loan, since the usurer has to be compensated for the social drawbacks of his despised employment. But it does not follow that there are no cases in which this disadvantage has to be faced as the least of two evils.

Thirdly, the economist does not assume that his economic man is *always* buying in the cheapest and selling in the dearest market, and never rendering services to his fellow creatures on any other terms. He does not lay down that the economic distribution which it is his business to analyse will not be supplemented to an indefinite

extent by a distribution prompted by other motives: indeed, it should be noted that the ordinary economic man is always understood to be busily providing for a wife and children; so that his dominant motive to industry is rather domestic interest than self interest, strictly so called. And it has never been supposed that outside his private business—or even in connection with it if occasion arises—a man will not spend labour and money for public objects, and give freely gratuitous services to friends, benefactors, and persons in special need or distress.

The political economists, it is true, have often felt called upon to criticise the proceedings of philanthropists; but those who have assumed in enunciating these criticisms a grave air of giving the results of abstruse scientific reasoning are partly to blame, I think, for having drawn on political economy a kind of odium which ought to have been thrown on the broader back of plain common sense. We may say, indeed, with special force of a great part of economic science what Huxley has said of science generally—that it is only “organised common sense.” But it needs little organisation to show that the motives to industry and thrift are impaired by the indiscriminate relief of the idle and improvident; that you help men best by encouraging them to help themselves, by widening the opportunities for the display of energetic activity and enterprise, and diffusing the knowledge that will save it from being wasted, rather than by diminishing the inducements that stimulate it. To apprehend the truth of propositions like these, a man need not even have read a shilling handbook; and yet these commonplaces constitute the greater part of the “hard hearted economist’s” criticism of sentimental philanthropy. If, indeed, the economist has gone on to say that therefore no efforts ought to be made to relieve distress, and raise those who have temporarily stumbled in the struggle for existence, or if he has prophesied failure to all larger attempts on the part of philanthropists to improve the condition of the classes at the base of the industrial pyramid—if, I say, an individual economist has here and there been found lecturing and prognosticating in this sweeping manner, he has only exemplified the common human tendency to dogmatise beyond the limits of his knowledge; and I trust the blame will not be laid on the science whose exacter methods he has deserted or misapplied.

The important question of method, then, at issue between the English economists and their German critics is not whether the play of the ordinary motives of self interest ought to be limited and supplemented by the operation of other motives, but whether these other motives actually do, or can reasonably be expected to, operate in such a way as to destroy the general applicability of the method of economic analysis which assumes that each party to any free

exchange will prefer his own interest to that of the other party. And in speaking of the German historical school as antagonists on this question, I ought to say that I refer only to what I may call their more aggressive left wing. With the more moderate claims of the historical method as set forth by the distinguished leader of the school, William Roscher, the English economists, who maintain the tradition of Adam Smith and Ricardo, have no sort of quarrel; and Roscher expressly disclaims any quarrel with them. He has sought, as he says, "gratefully to avail himself" of the results of Ricardian analysis, and we can no less gratefully profit by the abundant historical researches that he has led and stimulated. It is no doubt true that our older economists often had an insufficient appreciation of the historical variations in economic conditions; and, in particular, did not adequately recognise the greater extent to which competition was limited or repressed by law or custom in states of society economically less advanced than our own. But for a generation there has been no serious dispute about this, nor has there ever been any fundamental disagreement between Ricardians and Roscherians as to the right method of studying the history of economic facts. The most deductive English economist has never gone so far as to maintain that this can be constructed *à priori*, any more than any other history; and if a generation ago he was sometimes wont to dogmatise with insufficient information as to the causes of industrial changes and the economic effects of political measures in other ages and countries, he has grown wiser, like other persons, through the great development of historical study—and of what I may call the common historic sense of educated persons—which has taken place in the interval. Indeed, I think the danger now is rather that we should go into the opposite extreme, and not give sufficient attention to the more latent and complicated but very effective manner in which competition is found operating even in states of society where the barriers of custom are strongest.

But further, even as regards the present condition of industry in the more advanced countries, to which the theory of modern economic science primarily relates, there is, I conceive, no dispute as to the need of what is called a "realistic" or "inductive" method—*i.e.*, as to the need of accurately ascertaining particular facts when we are inquiring into the particular causes of particular values, or of the shares of particular economic classes at any given place and time. All that the deductive reasonings of English economists supply is a method of analysing the phenomena and a statement of the general causes that govern them, and of the manner of their operation. In this analysis, no doubt, the assumption is fundamental that the individuals concerned in the actual

determination of the economic quantities resulting from free exchange will aim, *ceteris paribus*, at getting the most they can for what they sell and giving the least they can for what they buy. And when we find the legitimacy of this assumption, and the scientific value of the analysis based upon it, broadly assailed by Hildebrand,* Knies,† and others, we are no doubt seriously concerned to meet their criticism.

For my own part, I can only say that, having searched their works with the interest and respect which are due to the indefatigable research and the scientific fertility of the German intellect, I am quite unable to discover what other scientific treatment of the general theory of distribution and exchange they propose to substitute for the treatment which they sweepingly criticise. I cannot perceive that their higher view of man as a moral, sympathetic, public spirited being, habitually rising above the sordid huckstering considerations by which English economists assume him to be governed, has any material effect on their theory of the determination of economic quantities when it comes to be actually worked out. When Knies,‡ for instance, is discussing the nature and functions of capital, money, and credit, or when he is arguing with more subtlety than success against the Ricardian doctrine of rent, we find that the capitalists and landlords, the lenders and borrowers, whose operations are contemplated, exhibit throughout the familiar features of the old economic man. So again when, in the "Encyclopædia of Political Economy,"§ recently published by this school, we examine the definitions of fundamental notions, or the explanation of prices, or the theory of distribution, we meet, indeed, with some interesting variations on the old doctrines, but we find everywhere the old economic motives assumed and the old method unhesitatingly applied. The proof of the pudding, as the proverb says, is in the eating; but our historical friends make no attempt to set before us the new economic pudding which their large phrases seemed to promise. It is only the old pudding with a little more ethical sauce and a little more garnish of historical illustrations.

In saying this I should be sorry to seem to underrate the debt that economic science owes to the labours of the school now dominant in Germany. Much of the positive work that they have

* See two papers on "Die gegenwärtige Aufgabe der Wissenschaft der politischen Oekonomie," in the first volume (1863) of Hildebrand's "Jahrbuch für National-Oekonomie u. Statistik," p. 5ff. and p. 137ff.: especially his criticism of J. S. Mill (p. 23), quoted with approval by Schönberg in the introduction to his "Handbuch."

† See his "Politische Oekonomie vom geschichtlichen Standpunkte," iii, § 3.

‡ See his "Geld und Credit," in particular "Credit," part 2, chap. xii, § 2.

§ See Schönberg's "Handbuch," iv, v, and xi.

produced is in its way excellent; even their criticism of the older method has been, in my opinion, most useful; and if I complain that they have by no means done what they announced, with some flourish of trumpets, that they were going to do, it is chiefly because their exaggerated phrases have led critics of a looser sort to misunderstand and misrepresent the recent progress and actual condition of economic thought. I fully recognise that the elaborate and careful study of economic facts in all departments, which the historical school has encouraged and carried out, is an indispensable aid to the due development of general economic theory. In all abstract economic reasoning which aims at quantitative precision, there is necessarily a hypothetical element; the facts to which the reasonings relate are not contemplated in their actual complexity, but in an artificially simplified form; if, therefore, the reasoning is not accompanied and checked by a careful study of facts, the required simplification may easily go too far or be inappropriate in kind, so that the hypothetical element of the reasoning is increased to an extent which prevents it from having any practical value. And this danger is of course enhanced by the great, though generally gradual, changes in economic facts which accompany or constitute industrial development. Thus, for instance, a theoretical investigation of the purchasing power of money, which assumes for simplicity that coin or bank notes form the sole medium of exchange, might easily lead to serious practical errors in the existing condition of industry; and a theory of capital which ignores the great and growing preponderance of auxiliary over remuneratory capital is liable to be similarly delusive. The general study of economic history is important as calling attention to this source of error; but for effective protection against it we must look to that patient and systematic development of statistical inquiry, which it is one of our main functions here to watch and to foster.

I must observe, however, that the historical economists are apt to insist too one-sidedly on the progress in economic theory attained by studying the industrial organisation of society in different stages of its development; they do not sufficiently recognise that other kind of progress which consists in conceiving more clearly, accurately, and consistently the fundamental facts that remain without material change. But this latter kind of progress is very palpable to one who traces back the history of economic doctrines. Indeed, if our active controversy on principles and method has led anyone to think that political economists are always wrangling and never establishing anything, he may easily correct this impression by turning to the older writers, and noting the confusions they make on points that are now clear to all instructed persons, and the inferences they unhesitatingly draw, which all would now admit to be in whole or

in part erroneous. And by the "older writers" I do not mean merely those who lived before Adam Smith; what I have just said is no less true of the "Wealth of Nations" and its most distinguished successors. A tyro can now see the fallacy of Adam Smith's statement, that "labour never varying in its own value" is a "universal" and "accurate standard of the exchangeable "value of all commodities at all times and places;" the staunchest Ricardian would refuse to follow his master in maintaining that a tax on corn would cause labourers "no other inconvenience than "that which they would suffer from any other mode of taxation;" the most faithful disciple of J. S. Mill would not fall into the confusion between "interest" and "profit" which seriously impairs the value of important parts of his discussions. Much progress, I doubt not, still remains to be made, by steadily continuing that labour of reflective analysis through which our conception of fundamental economic facts has grown continually fuller and more exact; but no one who examines impartially the writings of our most eminent predecessors can ignore the progress that has already been made.

I now pass to consider another old charge against political economists, which has been recently revived: the charge of confining their attention too much to the special group of phenomena with which they are primarily concerned, and neglecting the relations of these to other social facts. There have, no doubt, been writers—Senior is perhaps the most important—in whom such neglect was deliberate and systematic, but their peculiar view of economic method has long ceased to have any influence on current thought; and I hardly think that political economists are now more open to the charge of systematic narrowness than any other set of students who do not "take all knowledge for their province," but accept the limitations which the present state of research imposes as the inevitable condition of thorough work in any department. And so far as the charge hits a real defect, I doubt whether vague generalities about the "consensus of the different functions of the "social organism," and the impossibility of "isolating the study of "one organ from that of the rest," will be found of much practical use in correcting the defect; since the relations of other social phenomena to those which primarily concern the economist vary indefinitely in closeness and importance; so that the question how far it is needful to investigate them is one which has to be answered very differently in relation to different economic inquiries. Thus, in considering generally the first subject of Adam Smith's investigation—"the causes of the improvement in the productive "powers of labour"—the importance of a healthy condition of social morality must not be overlooked; but it is not therefore the econo-

mist's duty to study in detail the doctrine or discipline of the different Christian churches; while any reference he may make to the history of the fine arts will obviously be still more remote and brief. If, however, we are considering historically the causes that have affected the interest of capital, the views of Christian theologians with regard to usury will require careful attention; if, again, we are investigating the share taken by a particular community in the international organisation of industry, the higher average of artistic sensibility among its members may be a consideration deserving of notice—as in the case of France.

Or again, we may illustrate the different degrees of connection of economic science with different departments of social fact by comparing the chief classes of statistics with which this section has concerned itself. Some of the most important of these—such as the statistics of taxation, trade, railways, land tenure and the like, and a great part of the statistics of population—obviously supply the indispensable premises of much of the economist's reasoning, so far as it aims at being precise and particular, and the indispensable verification of many of his conclusions. In other cases again, as, for instance, the great departments of sanitary and educational statistics, the interest of the economist is more general and limited: for though both sanitation and education have important bearings on the productiveness of national labour, the details of the organisation for promoting either end lie in the main beyond the scope of his investigation; while he has manifestly still less to do with criminal statistics, military and naval statistics, and several other species of social facts which governmental or private agencies now enable us to ascertain with approximate quantitative exactness.

At this point, however, our critics will probably say that it is not so much a knowledge of the separate relations of different groups of social phenomena that the political economist lacks, but rather a true conception of the social organism as a whole, and of the fundamental laws of its development; he does not recognise that his study can only be legitimately or profitably pursued as a duly subordinated branch of the general science of sociology. This view was strongly urged by Mr. Ingram in his presidential address to this section seven years ago in Dublin,* and it was enforced by pointing contemptuously to the limited function which well instructed economists at the present day are careful to allot to their science in the settlement of practical questions. When we explain, with Cairnes, that political economy furnishes certain data that go towards the formation of a sound opinion on such questions, but does not undertake to pronounce a final judgment on them, we are

* It has been recently expressed again, with no less emphasis, in Mr. Ingram's article on "Political Economy," in the nineteenth volume of the "Encyclopædia Britannica."

told that this "systematic indifferentism amounts to an entire "paralysis of political economy as a social power;" and that the time has come for it to make way for, or be absorbed into, the "scientific sociology" which is now in the field, and certainly seems ready to offer statesmen the unhesitating and comprehensive practical guidance to which mere economic science confesses itself inadequate.

It appears to me that Mr. Ingram and his friends somewhat mistake the point that they have to prove. It is not necessary to show that if we could ascertain from the past history of human society the fundamental laws of social evolution as a whole, so that we could accurately forecast the main features of the future state with which our present social world is pregnant—it is not needful, I say, to show that the science which gave this foresight would be of the highest value to a statesman, and would absorb or dominate our present political economy. What has to be proved is that this supremely important knowledge is within our grasp; that the sociology which professes this prevision is really an established science. To deny this may perhaps seem presumptuous, in view of the voluminous works that we possess on the subject, which it would be quite out of place for me to attempt to criticise methodically on the present occasion. Fortunately, however, such methodical criticism is not required to justify my negative conclusion: since there are two simple tests of the real establishment of a science—emphatically recognised by Comte in his discussion of this very subject—which can be quickly and decisively applied to the claims of existing sociology. These tests may be characterised as (1) Consensus or Continuity and (2) Prevision. The former I will explain in Comte's own words: "When we find "that recent works, instead of being the result and development of "what has gone before, have a character as personal as that of "their authors, and bring the most fundamental ideas into "question"—then, says Comte, we may be sure we are not dealing with any doctrine deserving the name of positive science. Now, if we compare the most elaborate and ambitious treatises on sociology—of which there happens to be one in each of the three leading scientific languages—Comte's "*Politique Positive*," Spencer's "*Sociology*," and Schäffle's "*Bau und Leben des socialen Körpers*"—we see at once that they exhibit the most complete and conspicuous absence of agreement or continuity in their treatment of the fundamental questions of social evolution.

Take, for example, the question of the future of religion. No thoughtful person can overlook the importance of religion as an element of man's social existence; nor do the sociologists to whom I have referred fail to recognise it. But if we inquire after the characteristics of the religion of which their science leads them to

foresee the coming prevalence, they give with nearly equal confidence answers as divergent as can be conceived. Schäffle cannot comprehend that the place of the great Christian Churches can be taken by anything but a purified form of Christianity; Spencer contemplates complacently the reduction of religious thought and sentiment to a perfectly indefinite consciousness of an Unknowable, and the emotion that accompanies this peculiar intellectual exercise; while Comte has no doubt that the whole history of religion—which, as he says, “should resume the entire history of “human development”—has been leading up to the worship of the Great Being, Humanity, personified domestically for each normal male individual by his nearest female relatives. It would certainly seem that the science which allows these discrepancies in its chief expositors must be still in its infancy. And when we go on to ask how these divergent forecasts of the future are scientifically deduced from the study of the past evolution of mankind, we are irresistibly reminded of the old epigram as to the relation of certain theological controversialists to the Bible:

Hic liber est in quo quærit sua dogmata quisque,
Invenit et pariter dogmata quisque sua.

I do not doubt that our sociologists are sincere in setting before us their conception of the coming social state as the last term of a series of which the law has been discovered by patient historical study; but when we look closely into their work it becomes only too evident that each philosopher has constructed on the basis of personal feeling and experience his ideal future in which our present social deficiencies are to be remedied; and that the process by which history is arranged in steps pointing towards his Utopia bears not the faintest resemblance to a scientific demonstration.

This is equally evident when we turn from religion to industry, and examine the forecasts of industrial development offered to the statesman in the name of scientific sociology as a substitute for the discarded calculations of the mere economist. With equal confidence, history is represented as leading up, now to the naïve and unqualified individualism of Spencer, now to the carefully guarded and elaborated socialism of Schäffle, now to Comte’s dream of securing seven-roomed houses for all working men—with other comforts to correspond—solely by the impressive moral precepts of his philosophic priests. Guidance, truly, is here enough and to spare; but how is the bewildered statesman to select his guidance when his sociological doctors exhibit this portentous disagreement?

Nor is it only that they adopt diametrically opposite conclusions: we find that each adopts his conclusion with the most serene and complete indifference to the line of historical reasoning on which his brother sociologist relies. Schäffle, *e.g.*, appears not

to have the least inkling of the array of facts which have convinced Spencer that the recent movement towards increased industrial intervention of Government in Germany and England is casually connected with the contemporaneous recrudescence of "militancy" in the two countries. And similarly, when Spencer explains how, under a *régime* of private property and free contract there is necessarily a "correct apportioning of reward to merit," so that each worker "obtains as much benefit as his efforts are "equivalent to—no more and no less," he exhibits a total ignorance of the crushing refutation which, according to Schäffle, this individualistic fallacy has received at the hands of socialism. The tendency of free competition to annihilate itself, and give birth to monopolies exercised against the common interest for the private advantage of the monopolists; the crushing inequality of industrial opportunities, which the legal equality and freedom of modern society has no apparent tendency to correct; the impossibility of remunerating by private sale of commodities some most important services to the community; the unforeseen fluctuations of supply and demand which a world-wide organisation of industry brings with it: liable to inflict, to an increasing extent, undeserved economic ruin upon large groups of industrious workers; the waste incident to the competitive system, through profuse and ostentatious advertisements, needless multiplication of middle-men, inevitable non employment, or half employment, of many competitors; the demoralisation, worse than waste, due to the reckless or fraudulent promotion of joint stock companies, and to the gambling rife in the great markets, and tending more and more to spread over the whole area of production—such points as these are unnoticed in the broad view which our English sociologist takes of the modern industrial society gradually emancipating itself from militancy; it never enters his head that they can have anything to do with causing the movement towards socialism to which his German *confrère* has yielded.*

However, whether Spencer or Schäffle is a true prophet—whether the decay of war will bring us to a more complete individualism, or whether the increasing scale of the organisation of industry and its increasingly marked deficiencies are preparing the way for socialism—cannot certainly be known before a date more or less distant. But as Comte's sociological treatise was written a generation ago, we are fortunately able to bring his very definite previsions and counsels to the test of accomplished facts. In 1854 he announced that the transition which was to terminate the western revolution would be organised from Paris, the "religious "metropolis of regenerate humanity," where an "irreversible

* See Schäffle's "Kritik der kapitalistischen Epoche," in "Bau und Leben "des sozialen Körpers," vol. iii, pp. 419—457.

“dictatorship” had just been established, within the space of a generation. In the initial phase of the transition, which ought to last about seven years, perfect freedom of the press would “rapidly extinguish journalism,” owing to the “inability of the “journal to compete with the placard.” By a “judicious use of “placards, with a few occasional pamphlets,” Positivism would regenerate public opinion. The budget of the clergy, the University of France, the Academy of Sciences must be suppressed, and the proximate abolition of copyright announced. By these moderate measures Louis Napoleon’s irreversible dictatorship might be “perfected and consolidated,” so that the dictator might assume complete legislative power, reducing the representative assembly—which would sit once in three years—to the purely financial function of voting the budget. In the second phase of the transition, which should last about five years, the “dictatorial “government now unquestionably progressive,” would suppress the French army, substituting a constabulary of 80,000 gendarmes. This would suffice to maintain order, internal and external, as the oppressive military establishments of neighbouring States would everywhere fall as soon as France had put down her army. The dictator would then break up France into seventeen separate intendancies as a step towards the ultimate Positive *régime*, under which the people of Western Europe are to be distributed into seventy republics, comprising about 300,000 families each. The third and last phase of the transition, which should occupy about twenty-one years, might be expected to be opened by the voluntary abdication of the dictator in favour of a triumvirate, consisting probably of a banker to manage foreign affairs, an “agricultural “patrician” as minister of the interior, and a working man to take charge of the finances. Their names would be suggested by the High Priest of Humanity—indeed, Comte tells us that he had been “working for several years at the choice of persons,” in order to be ready for this momentous nomination; for the immense influence which positive doctrine ought to have gained by this time would enable the political direction of France to be placed completely in the hands of positivists. This triumvirate would transform the seventeen intendancies into separate republics; the *bourgeoisie* would then be gradually “eliminated” by the extinction of *littérateurs*, lawyers, and small capitalists, so that society would pass easily into the final *régime*.*

I need not go on to this final *régime*. I have already given you more than enough of these extravagances; but it seemed important to show how completely the delusive belief that he had constructed the science of sociology could transform a philosopher of remark-

* These details are taken from Comte’s “*Système de Politique Positive*,” vol. iv, chap. v.

able power and insight into the likeness of a crazy charlatan. I trust that our Association will take no step calculated to foster delusions of this kind. There is no reason to despair of the progress of general sociology; but I do not think that its development can be really promoted by shutting our eyes to its present very rudimentary condition. When the general science of society has solved the problems which it has as yet only managed to define more or less clearly—when for positive knowledge it can offer us something better than a mixture of vague and variously applied physiological analogies, imperfectly verified historical generalisations, and unwarranted political predictions—when it has succeeded in establishing on the basis of a really scientific induction its forecasts of social evolution—it will not require any formal admission to the discussions of this section; its existence will be irresistibly felt throughout the range of the more special inquiries into different departments of social fact to which we have hitherto restricted ourselves. It is our business in the meantime to carry on our more limited and empirical studies of society in as scientific a manner as possible. Of the method of statistical investigation I have not presumed to speak, as I have not myself done any work of this kind, but have merely availed myself gratefully of the labours of others. But, even so, it has been impossible for me not to learn that to do this work in its entirety, as it ought to be done, requires faculties of a high order. For duly discerning the various sources of error that impede the quantitative ascertainment of social facts, eliminating such error as far as possible, and allowing for it where it cannot be eliminated—still more for duly analysing differences and fluctuations in the social quantities ascertained, and distinguishing causal from accidental variations and correspondences—there is needed not only industry, patience, accuracy, but a perpetually alert and circumspect activity of the reasoning powers; nor is the statistician completely equipped for his task for discovering empirical laws unless he can effectively use the assistance of an abstract and difficult calculus of probabilities. It is satisfactory to think that there is every prospect of statistical investigations being carried on in an increasingly comprehensive and systematic manner, throughout an ever widening range of civilised countries. The results of this development cannot fail to be important from the statesman's no less than the theorist's point of view; for though the statistician, as such, does not profess to guide public opinion on political questions, there can be no doubt, as Mr. Giffen has recently pointed out, that the knowledge attained by him tends to exercise on the general discussion of such questions an influence, on the whole, no less salutary than profound.
