

**The Importance of Diffusing a Knowledge of  
Political Economy  
by  
William Stanley Jevons**

[Ed.: Delivered in Owens College, Manchester, at the opening of the session of Evening Classes, on 12 October (originally published as a separate pamphlet, Manchester, 1866). This is the full text of the introductory lecture to public primary school teachers which 'brought some little criticism from the Radicals' on Jevons. The full circumstances are detailed in Vol. I, pp. 207-8; see also Letters 269 and 270, Vol. III, pp. 132 --8.]

I HAVE been requested by our Principal to give the opening lecture of the present session of Evening Classes, because, by the appointment which I have recently had the honour to receive in this College, my connection with these Evening Classes becomes of a permanent and somewhat peculiar character. The Cobden Memorial Committee have given a certain endowment to the Professorship of Political Economy in Owens College, and have laid it down as a condition that all teachers in schools supported by public funds or contributions in Manchester or Salford shall be admitted to an evening course of lectures in Political Economy without payment of the class fee.

As Professor of Political Economy, I thus become likewise the Cobden Lecturer on the same subject, and have to undertake the work of carrying out, as far as possible, the excellent intentions of those who have founded this Lectureship. While I may safely say that there is no occupation which I should undertake with more pleasure and prosecute with more effort, I must also add how well I am aware of the difficult work to be done.

It seems very appropriate that I should take the present opportunity to enter at once upon the work of the Lectureship by explaining the exact purpose and nature of the course of lectures which I have to deliver. I have endeavoured to ascertain as closely as possible the object which the Cobden Memorial Committee have in view, and to this of course I shall adhere, as far as my ability may go.

The founders of the Cobden Lectureship desire to take a step towards disseminating through the community, and especially among the working classes, a comprehension of the principles of political economy which govern the relations of employers and employed, of rich and poor, of buyer and seller, of debtor and creditor -those social and industrial relations on which the prosperity of every one and of the whole nation depends.

It is thought desirable that instruction in political economy should be given, at least in the case of the poorer classes, at a very early age, - almost as soon, in fact, as a boy has acquired the power of reading with facility. It is desired that all teachers of boys from about eight years of age and upwards should devote a certain portion of time to instructions in social economy, and should qualify themselves for the purpose by attendance upon a course of lectures. Though the teacher will of course only have to communicate to his boys lessons and maxims of a very simple character, it is almost indispensable that he should himself acquire a thorough comprehension of the science from which his lessons are drawn. Incidentally I may say that there seem to be at least three strong reasons why a teacher should know far more of a science than he can

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ever hope to communicate to young pupils.

Firstly, he ought conscientiously to assure himself of the truth of what he is going to deliver, and not repeat the lessons by rote, as if he had no further concern with them.

Secondly, without a knowledge of the science the teacher cannot have any feeling of its value, and will probably think his time and trouble uselessly spent in trying to teach social economy to boys. Bacon, indeed, says of studies - "they teach not their own use; but that is a wisdom without them and above them, won by observation." While on the one hand it is obvious that if a person keeps entirely to one study or science he cannot well know its value or use comparatively to other studies, it must be allowed on the other hand that those who know nothing of a science cannot possibly judge whether it will be useful or not, nor whether it can be taught to any given pupils. I fear that to most persons political economy is a mere name and suggests hardly the slightest notion of what the science is.

Thirdly, the lessons will come with far more force and clearness if they come from a powerful comprehension of their nature and foundations in truth. I need say nothing to establish this.

The instructions of the Cobden Lecturer are to be opened freely to all teachers in public schools in this neighbourhood, in order that they may have some inducement to begin or proceed with the study with such slight advantages as I can give them. It is hoped that many may thus gain both the desire and the power to introduce the subject successfully into their schools. Those teachers who disregard or are prejudiced against this movement will undoubtedly be those most ignorant of the nature of political economy.

I propose now to describe as well as I can the special reasons, as I conceive them, for promoting the diffusion of a knowledge of political economy. In stating these reasons I shall indeed feel as if I were attempting to add a sequel to the very able Introductory Lecture lately given by my colleague, Professor Ward, in the Town Hall. His subject was "National Self-Knowledge." *Γνωθι σεαυτὸν*, "Know thyself," was the famous precept, the importance of which he proved by illustrations drawn from the history of ancient and modern nations and persons. He showed how a mistake as to our own nature and powers leads pretty surely to failure and ruin. It is indispensable that in every thing we do we should obey the natural laws under which we are placed, and we cannot be sure we obey them unless we know them.

*Si vis omnia subjicere, subice tibi rationi* - 'If you wish to conquer all things, subject yourself to reason,' - is a wise maxim, the meaning of which has been even better expressed in one line by Tennyson, who speaks of

"Ruling, by obeying nature's powers."

Now, it is obvious that these great precepts, *Know thyself* and *Obey thy own nature*, must be observed not only in the policy of a great nation but in every slight act of an individual. Where we do not observe them we are as likely as not to make nature herself our opponent and to incur the reward of ignorance and presumption.

Knowledge, indeed, cannot do everything, and we need something above knowledge. Still, the greater part of the misfortunes and unhappiness of life

may be avoided by knowledge, and our appointed way to avoid them is by energetic efforts to gain the necessary knowledge, and to act according to it.

We have been endowed at our creation with powers of observation and reasoning which seem capable of penetrating by degrees all the secrets of nature. When we are suffering under or are threatened with any evil we should not content ourselves with hoping or praying for its removal only, but we should set in action all our faculties, and by first acquiring and then diffusing all the knowledge we can gain of its nature and causes, we should place in the hands of men the means of averting it. It is not our own power we use, it is the Divine power of knowledge.

As man by intelligence and cultivation delivers himself from positive physical want and becomes capable of a higher life and activity, he seems to incur at the same time new dangers. The first man, for instance, who mounted a horse has caused the death of many careless and unskilful riders, but he has contributed to the advantage of infinitely more. Ships have on the whole grown more useful and more safe from the time when our Celtic ancestors paddled about in coracles. But nowadays when a vessel is faultily fitted in some small particular, or carelessly managed, we have a catastrophe like the sinking of the "London" or the burning of the "Amazon." Our ancestors, again, could hardly imagine the benefits which we derive from railways, but they could hardly, on the other hand, conceive to themselves a disaster so instantaneous and terrible as a railway collision. The carelessness of a single man, the disorder of some delicate mechanism, or the breaking of a single pin or bar, may bring the most dreadful slaughter and mutilation to hundreds.

The greater our triumphs over nature the worse the punishment we incur for any remissness or faulty ignorance.

The same is exactly true of moral and social affairs. Our population multiplies, our towns spread, our industry grows and diversifies indefinitely by the aid of knowledge and skill. But there is hardly an advance which is not qualified by some risk or disadvantage incurred. We cannot fail to be proud of our vast metropolis and other great towns; but the overcrowding of people occasions sanitary evils with which we can hardly cope.

The progress of our commerce, again, brings us at intervals into dangers and distresses comparable in intensity to the advantages which it usually provides for us. Thus the cotton famine was an event that had long been dreaded, and I think reasonably dreaded. Its worst results were, however, averted when the time came, by a loyal love of order on the part of the suffering operatives, by a liberality on the part of the country generally, and by a skilfulness and energy in organization on the part of gentlemen on the spot, which cannot be too much admired.

But when, last April, the very greatest of our financial houses, a very pillar of the money market, as it was thought, broke down-when a monetary panic set in which might have stopped the industry and exchanges of the whole country, and when the Bank of England itself might have been obliged to suspend payments, - then we must have felt that we had a vast machine in operation in our midst the working of which we did not fully understand and could not safely control. Nor do the unreasoning acts of speculators and merchants, and even bankers, or the various and absurd opinions expressed by most persons as to the causes and remedies of the catastrophe inspire us with much hope that similar disasters will be avoided for the future.

The best example which I can give, however, of the evils and disasters which may accompany progress is to be found in trade unions and the strikes they originate and conduct. Of these I may say, in the words of a recent article of the *Times*, that “every year sees these organizations more powerful, more pitiless, and more unjust. Such atrocities as that reported from Sheffield are but the extreme cases of a tyranny which is at this very moment paralysing the large part of the trades of the country.”\*

\*This quotation has been interpreted as meaning that the trades unions were responsible for the occurrence of trades-outrages; but I did not attribute this meaning to it, nor had I the least intention of making such an assertion. The useful purposes which unions may serve are adverted to on pp- 48 and 49.

In mentioning trade unions I must advert to their political bearings on the present occasion, because as I am considering the importance of the science of economy I must look beyond it, according to the maxim of Bacon. But I must add that in my classes I make a point of keeping within the subject and taking a perfectly neutral position with respect to political questions, just as in all the classes of the College my colleagues and myself are bound by the will of the founder to abstain from inculcating any theological doctrines.

While these unions are in many respects proofs of admirable self control on the part of the working classes, they cause great uneasiness among those entrusted at present with the government of the country. England, we are fond of believing, is the country in which exists the truest liberty and the truest toleration, and we may well be happy in the belief that this liberty becomes year by year truer and greater. By liberty I do not mean merely what is vulgarly regarded as liberty by many, the privilege to vote for a representative in Parliament. I mean what Mr. Mill upholds as true liberty, in that noble essay which is perhaps the best of his great works. According to Mr. Mill, human liberty comprises - first, liberty of conscience, absolute freedom of opinions on all subjects; secondly, “liberty of tastes and pursuits, of framing the plan of our life to suit our own character;” thirdly, from this liberty, says Mr. Mill, follows the “liberty . . . of combination among individuals, freedom to unite for any purpose not involving harm to others.” He adds, “no society in which these liberties are not, on the whole, respected is free, whatever may be its form of government, and none is completely free in which they do not exist absolute and unqualified. The only freedom which deserves the name is that of pursuing our own good in our own way, so long as we do not attempt to deprive others of theirs, or impede their efforts to obtain it.” \*

\* J. S. Mill, *On Liberty* (ed. R. B. McCallum, Oxford, 1946), p. II.

This is the kind of liberty and toleration which we desire to cherish in this country. It cannot but happen indeed that where perfect individual liberty of this kind is enjoyed many must err and injure themselves by their error. It is for no want of regret for such error, or want of care for what we think the true and good that we uphold liberty which tolerates the false and, possibly, the evil. Toleration reposes on a profound trust in the value and strength of truth, a trust that truth will prevail and that error will show its worthlessness.

It may be confidently asserted that almost the whole of the upper classes of this country not only desire to uphold and advance the liberty of opinion and combination, but even to introduce a large part of the working classes within the governing power of the state by giving them the franchise. Mixed, however, with the strong desire to achieve progress such as this, is a fear that

political power may be misused through ignorance. We wish every working man to be not only free, but privileged; but to this end he must have intelligence and education, else he is not free but in name. He must know what are the true principles of free thought, and free action, and free combination. He must learn to see that in the trade unions, in which he chiefly places his hope at present, there is no true individual freedom, but that he is entirely at the mercy of the prevailing opinions of his fellow-workmen, often in fact of a few leaders of the union.

I have enumerated many great disasters arising from a want of knowledge; but there is one great disaster almost the greatest that I can figure to myself. It is that our working classes, with their growing numbers and powers of combination, may be led by ignorance to arrest the true growth of our liberty, political and commercial. This fear is not so chimerical as it might seem. If we look to the English colonies in Australia we see that the extension of the franchise has been followed by the overturn of free trade and the establishment of protective tariffs. Having personal acquaintance with some of the Australian colonies, and having noticed from the first the rise of the protection doctrines there, I may venture to assert with the more confidence that there is hardly any part of the earth's surface where such doctrines will do more harm. The doctrines of protection, whatever they may be elsewhere, are wildly irrational when applied to Australia. Yet they are in the ascendant there among a body of electors who are through ignorance doing all they can to retard the progress of rising states which are in all other respects the source of the greatest pride to Englishmen.

I might point again to the United States as an example of a great nation where the true commercial interests of all classes are sadly misconceived from an ignorance of the principles of economy and freedom of trade as they have been discovered, expounded, and put in practice, with the utmost success in Europe.

To avoid such a disaster as the reversal of the free policy of the country we must diffuse knowledge, and the kind of knowledge required is mainly that comprehended in the science of political economy. The working classes are doing harm to themselves and the country by the want of such knowledge; they have done harm ever since (by advancing freedom) they had the opportunity, and as freedom advances further they will do more and more harm, to an extent we cannot measure, unless they act from a better knowledge of their position and true interests. They act from wholly mistaken notions of their relations to their fellow-workmen and their employers. Not only is this to be regretted in itself as tending to sap the foundations of the industrial prosperity of the country, but it is to be regretted because it tends to retard the extension of the franchise and the advent of many true social reforms.

I hope that I may never be found among those who would wish to stay that progress towards all that is noble and free, which marks the course of English history. But the more I desire that this nation may attain the highest possible point of development, morally, politically, and industrially, the more do I regret any tendency which seems to me to be contrary to that development. And truth compels me to admit, against my inclinations, that those numerous classes of the population, whose hopes are usually thought to be on the side of liberty, do not always estimate the character of liberty aright. I fear especially that they are prone to act in a manner directly contrary to the laws of free industry.

Having thus attempted to point out the necessity for a better comprehension of

social laws among our population, I should like, if I could, to put before you the extreme difficulty which there is in overcoming the unreasoning prejudices of men on the subject. In questions which have economical and political bearings, the dictates of science and reasoning, are not calmly listened to. Every man thinks himself alike able and privileged to form his own opinions by his own unaided intelligence. Yet it is not so in any other branch of learning or science. So great and frequent have been the triumphs of physical science that the most ignorant crowd would feel some deference for the superior knowledge of a chemist, an electrician, or an astronomer on their own subjects. No sane man disputes the calculations of the Astronomer Royal and the predictions of the "Nautical Almanack," for people are aware not only how often astronomers have been proved right, but that astronomy itself is a science which cannot be understood without long study.

How unenviable would be the position of the Astronomer Royal if he had not only to ascertain and predict the moon's place to a nicety, but had every now and then to convince a crowd of persons at the hustings of the truth of his predictions by making plain to their untutored intellects the minutest details of the lunar theory. How much worse would it be if, when he failed to convince them of some point in the problem of the three bodies, they forthwith accused him of inventing the whole for interested purposes, to maintain his own emoluments or the privileges of his class. Such, however, is really the unfortunate position of any person who endeavours to discuss a question of social economy with an uneducated mass of persons. The teacher of physical science is never in such position. When an astronomer predicts an eclipse or a comet, when the analytical chemist detects poison or adulterations, when the meteorologist discovers the approach of a gale, they are listened to with almost unquestioning deference; and even one scientific man hardly ventures to question the results of another whose subject of study is at all remote from his own.

A little reflection will show how different it is in the case of the social sciences. These sciences, in the first place, deal with subjects far more difficult than the physical sciences. To convince you of this I would refer you to Mr. Mill's chapters upon the logic of the moral sciences, at the conclusion of his great treatise on Logic. Political economy is an older science than chemistry, and is far older than the science of electricity and several other most prolific branches of physical science. Yet so difficult is the subject that we have not yet advanced safely beyond the lowest and simplest generalisations. Political economy is not yet an exact science.

But the difficulty of his subject is not the worst difficulty in the way of the political economist. The worst difficulty is the obstinacy, prejudice, and incredulity of those he has to convince. Bentham has said, with regard to moral science and jurisprudence - "Gross ignorance descries no difficulties; imperfect knowledge finds them out and struggles with them; it must be perfect knowledge which overcomes them."

The best student and teacher of social science is but struggling with his difficulties and imperfect knowledge; as to the rest of the population they are involved in that state of mind which descries no difficulties at all, and is but too ready to act accordingly.

The mechanic, for instance, finds no difficulty in comprehending his social and economical position. He sees that his employer gives him just as little wages as he can. It is obvious then that the workmen of a trade should combine and

refuse to work for so little and then they will get more. Common sense is quite sufficient to show that.

A workman, again, sees that a machine, requiring the attendance of one or two men, does the work of many. If such a machine comes into use his own sense tells him, he thinks, that many will be thrown out of work, and himself probably among them. The instinct of self-defence leads him to destroy the machine.

The tradesman sees that the more a rich man buys from him the more profit there is to trade, the more employment to men. Common sense shows that free expenditure sets trade going, and there arises a feeling of approbation in the community in favour of those who live well and spend freely, as compared with those of a saving disposition.

The merchant feels that the more money he can borrow to trade upon the more he can gain. An extended issue of paper money is what he thinks requisite for diffusing activity of trade and general prosperity.

As regards the poor and dependent classes of the population, it is clear that a gift gives satisfaction to the receiver. Few, then, of charitable disposition can realise the fact that charity, unless it is given with the utmost discrimination, does far more harm than good. And who is there that is not offended by the political economist when he proves that a poor law must be harsh and niggardly if it is not to undermine the sources of our welfare? Even the most eminent men - such as Mr. Dickens and Mr. Hughes - have enlisted their common sense and high talents against the conclusions of the political economist.

Common sense yet rules in social discussion, and few can be made to see that economical science is but founded on common sense, refined and more intensely applied. Every workman and person of common intelligence has felt his way roughly to certain conclusions, so obvious to him that he refuses to look further. He cannot be made to see that he has reached only the beginning of a series of results and effects, of which the last would very much surprise him by its difference from the first. He would find too often that what is evidently beneficial in the beginning is immensely and widely hurtful in the end.

It is the duty of the political economist to try to trace out the ultimate effects of actions, and conditions, and laws on the wealth of individuals and the nation. This is well expressed in the title of an admirable little work of M. Bastiat, "What is seen, and what is not seen." This work has been translated by Dr. W. B. Hodgson, and was published first in the columns of the *Manchester Examiner and Times* in 1852, and afterwards in a separate form. I shall have to direct the attention of my classes to it, because, with a simple clearness of language, and a brilliancy of wit and illustration to which no English economist can lay claim, M. Bastiat contrasts, in a number of different incidents, the apparent and the unapparent results, and leads the-most unwilling reader to confess that the prepossessions of his common sense are proved by a more penetrating course of reasoning to involve error and injury.

There was a time not many centuries ago when men thought that the earth stood still, and the sun moved round it. Their common sense told them so, and they were prejudiced in favour of this opinion to the extent of imprisoning and persecuting those who thought otherwise. There is hardly a child who does not

know the contrary now, and in place of a mistaken prejudice we have now a noble science. It is for us to endeavour to overcome similar prejudices which lie in the way of the social science, and thus to bring on the time when the natural laws which govern the relations of capital and labour, and define inexorably the rates of profits and wages, will be obeyed.

I should like now to spend a few minutes in putting before you the proofs how much the opinion and will of the workman in these economical questions influence and will influence the prosperity of himself and his country.

In the first place, I think it is hard to exaggerate the extent to which the progress of industry and invention is hindered by the antipathies of workmen to the introduction of machinery and improvements. It is true that we do not now have bands of Luddites collecting after dark and destroying whole factories full of machinery. In the textile and certain other trades the use of machinery is so fully established that there is little or no further difficulty in the matter. I believe, too, that trade unions often now refuse to support their members in opposing the introduction of new machines. But there is still an immense force of passive resistance in occupations to which the use of machinery is new. Workmen are usually able to destroy machinery in an underhand manner, by over-loading or over-running it, or by secretly inserting a bar among the wheels and hidden parts. Employers are thus much deterred from erecting new expensive machines. Only two or three weeks ago I saw, in the Dudley Midland Exhibition, samples of chain cable of which the links were very successfully shaped and forged by machinery. Only four miles off I saw a fine new works in course of erection for the manufacture of cables by hand forging. The proprietors of the new works were fully acquainted with the success of the new machine, but hesitated to introduce them in their Staffordshire works, fearing the hostility of the many chain-makers in the neighbourhood. If introduced at all, these machines will probably be erected in works at a distance from Staffordshire. Thus will the ignorance of the chain-makers tend to drive away an important branch of manufacture from its ancient seat.

In the Great Exhibition of 1862, many must have noticed the very interesting type-composing and distributing machines. It would be of the greatest advantage to the diffusion of knowledge to lower the cost of setting type; but the use or even the fair trial of these machines has been prevented by the absolute *refusal of compositors* to work in a shop where they are tried.\*

\*A compositor, writing in the *City News*, has denied that the trial of the machines was prevented, but he allowed that the rules of the Printers' Trade Society prohibited the employment of women to work or attend upon the machines in any way.

At the late Social Science Meeting it was stated that attempts had been made to lower the cost of erecting workmen's dwelling and lodging houses, and thus improve their domestic condition by employing bricks of a larger size than usual. The insuperable difficulty was at once encountered that no bricklayers could be found who would set such bricks.

Many must be the cases of inventions and improvements which, when once frustrated by opposition, have been abandoned and forgotten. I am peculiarly acquainted with the case of a machine for making horse-shoes invented by an American gentleman many years ago. My father purchased the patent for the United Kingdom, and had no difficulty in making shoes as good and cheaper than they can be made by hand. On trying to introduce these, however, he found that every farrier in the kingdom declined to have anything to do with



machine-made shoes. As those who shoe horses are almost invariably the same men who make the shoes, it was soon seen to be hopeless to overcome the prejudice, and the attempt, I believe, has never been repeated.

It avails not to say that in these or any other cases the machines did not work successfully or cheaply enough. It is only after long experience and improvement by actual working that a machine can be brought near its maximum of efficiency. There is cost and difficulty enough in bringing any invention or improvement into use without the opposition of the whole series of labourers and tradesmen on whom its use depends. If a composing machine, a brick-making machine, a chain-forging machine, or any other machine, will not and cannot succeed, why should workmen hesitate to try it and demonstrate its failure. The fact is they needlessly hate its success, and will not allow it even to be tried.

Had I time I should like to advert again to strikes and trade unions, and point out by examples and details how contrary they are to the principles of industrial freedom. It will be, however, our work in the classes to consider this fully. I will only say that they are in their nature and present designs directly contrary to the principles of free labour, the promulgation and establishment of which by Adam Smith has led in a main degree to our present prosperity. In the 10th chapter of the 1st book of the "Wealth of Nations," Adam Smith pointed out with all his beautiful clearness of argument and illustration the evils which the policy of Europe has inflicted upon labour, "by not leaving things at perfect liberty." Those are his words. "The property," he says, "which every man has in his own labour, as it is the original foundation of all other property, so it is the most sacred and inviolable. The patrimony of a poor man lies in the strength and dexterity of his hands; and to hinder him from employing this strength and dexterity in what manner he thinks proper without injury to his neighbour, is a plain violation of this most sacred property. It is a manifest encroachment upon the just liberty both of the workman and of those who might be disposed to employ him. As it hinders the one from working at what he thinks proper, so it hinders the others from employing whom they think proper."

These remarks were aimed against the incorporated trades and guilds, or universities, as they were called, which, by strict regulations and restrictions as to the admission of apprentices and members, tried to secure their own advantage, indifferent to the public good. Such things are swept away in this country, and there are hardly any laws now existing in this kingdom which can be said to press upon the free employment of labour. But Dr. Smith could not have anticipated, when more than a hundred years ago he opposed laws and customs then in existence, that a hundred years afterwards there would arise among free bodies of workmen unions and corporations of vast extent, distinctly aiming at the restriction of employment.

Let it be distinctly understood that it is not the existence of combinations the political economist protests against. We cannot have too much co-operation and combination among men for purposes in accordance with the laws of nature and the laws of the country. All classes of people, all districts, towns, and villages, should have their unions, institutions, and societies, and meetings of various kinds. And it is highly desirable, at the same time, that every class of tradesmen and workmen should meet in their societies and unions to exchange information and assistance, and to concert every means of really and permanently benefiting their own body and the community. Any matter concerning the convenience and health of the workman - such as the length and

arrangement of the hours of labour and the time for meals, the allowance of holidays, the mode and time of paying wages, the wholesomeness and safety of factories - should be discussed by workmen among themselves in their unions. But this is where a want of a knowledge of economy and the laws of the working of society is so indispensable. When they pass from these matters in which an employer should consult the welfare of his men collectively, to regulate or raise the rate of wages, to enforce equality of work and wages, they bring their own and others' welfare into peril; and what I want you especially to see is, that, with the increasing intelligence and habit of co-operation among labourers, there is the more urgent need of a knowledge of economy, that they may restrain their power within natural laws - that they may, in short, know themselves.

It is only knowledge that can enable workmen to draw the rather nice boundary between what their unions may very properly interfere with, and what they should not touch.

As it is, however, the unions are becoming every day more arrogant in their attempts to coerce their employers and rule their own trades by exclusive corporations or universities, embracing the whole labour of each trade in one inflexible and resistless body. I quoted to you a sentence from the *Times*, which, I believe, is quite within the truth. It is hardly possible to take up a newspaper without seeing several accounts of strikes, dissensions, and sometimes even of trade outrages.

In order to show you how the matter is regarded by persons engaged in trade, and competent to judge, I will read you extracts from a letter I happened lately to receive. "In our business as iron merchants," says the writer, "we are continually hearing of the despotic tyranny they display in their conduct towards the ironmasters, who are now positively afraid of them, and hardly dare speak to them.\* There is a strike now pending in the Cleveland iron district against a reduction of wages, the issue of which is very uncertain, though it has continued for several months. The manufacture of iron has become a losing business with the masters, owing to the long-continued depression of business and the competition with foreign manufacturers; and yet the men will not submit to any reduction of wages from the highest point. We know it for a fact, from our own experience, that the French and Belgians have been supplying the Continental demand for iron for the last two or three years, and have supplanted English iron almost entirely by their lower prices. Our business with the Continent has dwindled away to nothing, owing to that cause; and we have many letters telling us, in reply to our quotations and solicitations for orders, that the writers can buy what they want cheaper in France and Belgium. What, then, is to be done? Until lately, England was the cheapest market in the world for iron, and now we are undersold by our nearest neighbours. The wages now demanded by our workmen are far more than what their fathers and predecessors were paid for the same kind of work; and yet they will not submit to any reduction. Is England, then, to lose its prestige in one of its most important productions, owing to the unreasonable conduct of its workmen. In our own business, the common labourers whom we employ in the warehouse in handling and weighing iron, to whom we for a long time paid 3s. 6d. a day, have lately demanded 4s., and have compelled us to pay it, for they will not permit a strange man to be employed at all, though we could get plenty at less money. And this kind of thing is not confined to the iron trade: it pervades almost every branch of trade and manufactures. You have probably seen in the papers what riots have recently taken place in the South, from the introduction of some foreign navvies, on a railway. Such is the spirit that

pervades our whole labouring population. It seems probable that they will deprive the country of all the benefit of our free trade policy. We certainly want free trade in labour quite as much as we wanted free trade in corn twenty years ago.”

\* Timothy Jevons. See Letter 265, Vol. III, p. 127.

We must remember that the trade of this country will have difficulties to meet in future years from which it has in times past been comparatively free. The very staple commodity on which it works, coal, will before very long rise in price, if it is not already rising. Not only in France and Belgium have we competitors whom it never occurred to us to fear, but in the United States there are mineral resources, inventive skill, and mercantile energy which may easily leave us behind. Let us remember, too, that our productive population, and our productive capital, have a great tendency to emigrate and increase the powers of our competitors. If, then, there be superadded to all these tendencies which will act against us, a truculence and tyranny on the part of the workmen unknown in other countries, we need nothing else to make us fear that capitalists will gradually withdraw their capital from home employment and invest it in the colonies, United States, and foreign countries.

It will be our work in the class to consider the nature of capital and the strong reasons which economists have discovered for believing that the average rate of wages in a trade cannot be raised by strikes and unions, and that thus the strikes and contentions which have occurred between employer and employed since the combination laws were repealed in 1824, represent a vast loss to workmen as well as to capitalists and the country in general.

I have wished by this and previous instances to make plain that advancing intelligence and freedom may but lead our operatives into loss and disaster unless they are furnished with appropriate knowledge of natural laws which they cannot escape from, and must ultimately obey. Men think that by the repealing of human laws they become free to act as they like. They must learn that there are natural laws even of human nature which they cannot break, but against which they can easily, through ignorance, throw themselves to their own destruction.

I will now only consider, in conclusion, how we may best hope to impress upon the people generally a knowledge of economy. To publish cheap treatises, though they be the very best treatises, like the People's Edition of Mr. Mill's works, will not have the desired effect, for in few cases will they be bought by the working classes. We cannot expect that men working hard during the day, should spend their evenings in the study of abstruse and difficult treatises. Mr. Mac Culloch published, some twelve years or more ago, a sixpenny work on wages and labour, intended to be generally read among the working classes. "There are none," he says in the preface, "who are more deeply interested in having the truth, as respects their situation, honestly and fairly stated, than the workpeople. It will be seen that at bottom they have no exclusive interests, and that their prosperity is intimately connected with, and is indeed inseparable from the prosperity of the other classes." But this work was not much read by those for whom it was intended, nor was its style well adapted to the purpose.

Miss Martineau made a very different and clever attempt, more than thirty years ago, to spread a knowledge of political economy in a series of tales entitled "Illustrations of Political Economy." The tales are very interesting and readable, and the doctrines clearly inculcated and sound. But like many other

moral tales, they have not been so much read as they deserved, nor have they been read by the classes in whom we are concerned.

The works of M. Bastiat, especially his "Harmonies," and his tract before mentioned, "What is seen and what is not seen," are excellently adapted for general readers, and have, I believe, been much read in France. They have been both translated into English, but in spite of Dr. Hodgson's efforts, are not so well known as they should be.

Dr. John Watts, again, of this city, the secretary of the Cobden Memorial Committee, has published cheap tracts on trade societies, machinery, co-operative societies, and strikes, excellently adapted for reading among the working classes, by whom several of them I believe were favourably received.

Still it must be apparent that efforts like these, even when attaining the measure of success hoped for, cannot produce any deep and widespread influence upon the opinions of a large population. We must begin upon children, and impress upon them the simple truths concerning their social position before the business of life has created insuperable prejudices.

The first writer, so far as I know, who produced a work on social or political economy suited to the use of children was Archbishop Whately, than whom a sounder and more judicious thinker and writer never lived. We may be sure that we are doing nothing wild or impracticable when we are following him. Many years ago he printed, through the Society for Promoting Christian Knowledge, a little book entitled "Easy Lessons on Money Matters for the use of Young People." It was, by the bye, my own first text book on the subject when I was certainly not more than ten or twelve years of age, possibly only eight. In 1843 it had reached the 7th edition, and it is still in common use, having reached the 16th edition.

An extract from the preface to this little work will show very distinctly Whately's opinion on the subject of this lecture: - "The following short lessons," he says, "were designed, and have on trial been found adapted, for the instruction of young persons from about eight years of age and upwards. Care has been taken to convey elementary knowledge on the subjects treated of, in such simple language that it is hoped these lessons will be found, with the help of explanation and *questioning* on the part of the teachers, easily intelligible, even to such as have but the ordinary advantages in point of education; and there are few subjects on which it is for all classes of people more important to inculcate correct principles, and to guard against specious fallacies. All persons in every station must, when they grow up, practically take some part, more or less, in the transactions in question. The rudiments of sound knowledge concerning these may, it has been found by experience, be communicated at a very early age: and that they should be inculcated early is the more important, because at a later period there are more difficulties in the way of such elementary instruction. Many, even of what are called the educated classes, grow up with indistinct, or erroneous and practically mischievous, views on these subjects; and the prejudices any one may have casually imbibed are often hard to be removed at a time of life when he imagines his education to be completed. When such simple elementary principles as those here taught are presented to him he is likely contemptuously to disregard them as childish 'truisms;' while the conclusions deduced from those principles are rejected by him as revolting paradoxes. Those, therefore, who are engaged in conducting, or in patronising or promoting education, should consider it a matter of no small moment to instil betimes just notions on subjects with which all must in

after-life be practically conversant, and in which no class of men, from the highest to the lowest, can, in such a country as this at least, be *safety* left in ignorance or in error.”

I conceive that the success which has attended the use of this little book is sufficient to show that social economy can be taught to children even from the age of eight years.\*

\* I may also especially recommend a little work entitled *Outlines of Social Economy*, published by Messrs. Smith, Elder, and Co., as written in a peculiarly clear and excellent manner.

Of late years an effort has been made by Mr. William Ellis, the patron of the Birkbeck Schools, by Dr. W. B. Hodgson, Mr. Shiel, lately a teacher in University College School, London, and others to introduce the teaching of Social Economy into schools for young boys generally. Though only some half dozen schools have been tried in this movement the success has been so encouraging as to lead the founders of the Cobden Lectureship to desire its general introduction in this neighbourhood. We do not in fact need to go far for an example of success. For in the Manchester Free School, in Deansgate, about five minutes' walk from here, the teaching of social economy was introduced by Mr. Templar, of Manchester, with complete success. On Mr. Templar's promotion the teaching has been continued with like success by the present head master, Mr. Mellor. At the Liverpool meeting of the Social Science Association, in 1858, Mr. Templar pointed out most distinctly the importance of the views now more widely adopted. He showed not only the utility of the information which may be given, but also its suitability for the purpose of exciting and exercising the thoughts of the pupils.

Those who are at all incredulous about the possibility of teaching such a subject to young boys should be present at one of Mr. Mellor's lessons and hear with what accuracy and interest a number of little ragged boys out of Deansgate and other parts will answer questions concerning the variety of wages in trades, the division of labour, the use of money, and so forth. The subject is taught in this school to all boys who have learned to read with facility a small work called "Reading Lessons in Social Economy for the use of Schools," prepared for the purpose by Mr. Templar. A portion of the lesson is read over by the boys in turn, and its meaning and contents fixed in the mind by numerous questions.

It may be confidently said that if schoolmasters generally would make themselves acquainted with the doctrines and value of economical and social science, they would at once perceive the inestimable service which they might perform to their pupils and the community generally by introducing it as a subject of their lessons. And I will add a word to remind those engaged in elementary education, that in their hands lies the destiny of the country. Any one who has followed the late admirable debates on education in the meeting of the Social Science Association, or any one who only reflects on what is seen every day, must feel that our only chance of a permanent amelioration is by a comprehensive and thorough system of education for all.

In these days of high wages I believe there is nothing to prevent any mechanic or operative, as a general rule, from saving money by degrees. He may invest it in Savings' Banks or the Government Annuities, and insurance office, or better still in co-operative stores and undertakings. He may thus secure himself and his family from the accidents of life, and may even become a capitalist sharing

in the profits of capital as well as labour; able again by the funds at his disposal to move and establish himself where he likes, or if he prefers, to emigrate with comfort and advantage. There is nothing in short but prejudice to prevent him gaining a position enviable for its independence. But it is distressing to think how much might be done by appropriate education when we see how little is done. No country ever enjoyed wealth and opportunities at all approaching to what the various classes of English society now enjoy. The working classes alone have been calculated to earn £400,000,000 sterling, and it is a reasonable estimate that, £80,000,000 annually are spent upon drinks and tobacco. It is assuredly then not the want of means and money that makes our population so different from what it ought to be. It is the want of knowledge.

[This text was scanned from R.D. Collison Black (ed.) *Papers and Correspondence of William Stanley Jevons, Vol. VII: Papers on Political Economy*, London: MacMillan Press, 1981.]