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Alfred Marshall and Economic History
An Essay

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*"Alfred Marshall - Serious Academic Figure or
Cunning Ham? Thrills and Spills in a Cambridge Cloister"*

(Geoffrey French, translator)

Preface

My interest in Marshall's view of, or perhaps I should say relation to, economic history was aroused in the course of a current study dealing with Eli F Heckscher and his attempts over the years to decide what economic history really is. Special attention is devoted to Heckscher's discussions of the relations between economic history and political economy. I have presented some preliminary results in the *Scandinavian Economic History Review*, 1992:3 under the title "Eli Heckscher and the Problem of Synthesis". In that article I suggested that despite the fact that Heckscher does not explicitly refer to Marshall, there are early elements of Heckscher's argumentation which are reminiscent of Marshall's. Moreover, Heckscher writes in the introduction to the English edition of *Mercantilism* that Marshall's *Principles* "were not only the starting-point of my theoretical studies, but also profoundly influenced my approach to economic history". See *Mercantilism*, London 1935 p. 13. Quite apart from this possible link, it goes without saying that Marshall has a place in the history of economic history itself by virtue of the methodological dispute between him and William Cunningham. We shall have cause to revert to this, and especially to the question of the significance and scope of this methodological dispute. I wish to thank the Institute of Economic Research, Lund University, for funding the present study as well as my work on Eli Heckscher. Special thanks to my colleagues Göran Ahlström, Daniel Ankarloo, Benny Carlson and Neelambar Hatti, but naturally, I alone am responsible for the remaining errors.

Carl-Axel Olsson

I believe that the desire to do what is best for oneself is seldom absent from human nature.
(Alfred Marshall 1892.)

I

On 29 December 1940, Joseph Schumpeter was delivering a lecture to the members of the American Economic Association. The venue was New Orleans. His task was to discuss and give his views on the significance which Alfred Marshall's *Principles of Economics* had had for the development of political economy.¹ Fifty years had elapsed since the first edition of the book was published. With hindsight we may now consider the task to have been a somewhat curious one. It is well known that Schumpeter was a great admirer of Walras' theory of general equilibrium. In the light of this, Marshall's theory of partial equilibrium would seem to form a somewhat uninteresting special case.² Schumpeter's admiration for Walras' equilibrium metaphor, moreover, had caused him to go a step further and focus his theoretical interest on questions concerning disturbances of this general equilibrium - on the question of the instability of capitalism. And this is not a problem area which one immediately associates with Marshall either.

But Schumpeter's verdict on the significance of the *Principles* is very favourable. He begins by declaring that the work has virtually the character of a monument or classical edifice which we can, and should, love and admire. But it does not constitute merely an historical landmark. Marshall's theoretical edifice still casts its shadow over economic science. And it does this despite the fact that political economy has obviously undergone development during the fifty years which have elapsed since publication of

¹ Schumpeter, J., Alfred Marshall's *Principles*. A Semi-Centennial Appraisal, *American Economic Review*, vol. 31:2 June 1941.

² It should be remembered, however, that later on Schumpeter came to attribute a theory of general equilibrium to Marshall. This is apparent from his *History of Economic Analysis* (1954), in which he says that "note XXI in the Appendix to Marshall's *Principles* is conclusive proof of the fundamental sameness of his and Walras' models". For a discussion of this question see Dimand, Robert W., "Alfred Marshall and the General Equilibrium Theory of Value and Distribution: an Examination of Notes XIV and XXI", in Tullberg, Rita McWilliams, ed, *Alfred Marshall in Retrospect*, Worcester 1990.

the first edition of the *Principles*. What many exponents of economic science have failed to realise is that Marshall himself never regarded his edifice as final: "On the contrary, he was fully aware that he was building an essentially temporary structure."³ And in contrast to many other political economists, Marshall realised that political economy as a science is subject to the law of evolution. Furthermore, says Schumpeter, Marshall was one of the first to point out that not only was the theory of economics changing but also the object of the theory. Thus Marshall did at any rate suggest the need for an *evolutionary perspective* in the study of economic development. It goes without saying that such a theoretical ambition was entirely in line with Schumpeter's own opinions.⁴

Quite apart from this, Schumpeter also wishes to emphasise the impact which Marshall has had on economic science in a purely theoretical sense, or perhaps rather a conceptual one. One of Marshall's most important contributions was to furnish economic science with a number of concepts which today are to be regarded as its very "handy tools": substitution, elasticity coefficients, consumer rent, quasi-rent, the representative firm, long term and short term etc. But if we plunge directly into the theoretical chapters which properly speaking may be considered the core of the *Principles* (and are to be found mainly in the fifth book), we miss the chapters dealing with economic sociology and economic history.⁵ These aspects of nineteenth century capitalism, Schumpeter contends, form the foundation of theoretical analysis. And he continues:

³ Schumpeter, J., Alfred Marshall's *Principles*, p. 237.

⁴ Schumpeter's own view of economic history may be recalled. In his *History of Economic Analysis*, London 1954, he begins by laying down that economic analysis comprises three areas, viz history, statistics and "theory". "Of these fundamental fields, economic history (...) is by far the most important. I wish to state right now that if, starting my work in economics afresh, I were told that I could study only one of the three but could have my choice, it would be economic history that I should choose." p. 12.

⁵ For similar views see e.g. Parsons, T., *Economics and Sociology; Marshall in Relation to the Thought of His Time*, *Quarterly Journal of Economics*, vol. 46, 1932 and Whitaker, J.K., *Some Neglected Aspects of Alfred Marshall's Economic and Social Thought*, *History of Political Economy*, vol. 9, 1977.

*"Marshall was, in fact, an economic historian of the first rank, though he may not have been much of an historical technician. And his mastery of historical fact and his habit of mind did not dwell in separate compartments but formed so close a union that the live fact intrudes into the theorem and the theorem into purely historical observations."*⁶

II

Schumpeter's verdict may accordingly be thought somewhat surprising bearing in mind that Marshall's name is often associated with the changeover from classical to so-called neoclassical political economy, a transition whose prelude is traditionally assigned to the 1870s and which can be said to find its most outstanding expression in Marshall's *Principles* of 1890. In this context, and in the usual accounts of the changeover, Marshall is not infrequently portrayed as an opponent of economic history and an advocate of an ahistorical, deductive and abstract political economy which in terms of choice of subject-matter differs from the classical but methodologically forms a continuation of the line which, to cite Hutchison (1953) "had been given (...) by J.S. Mill in his early essay (1829), published in *Unsettled Questions*, by Senior in his *Lectures* (1826 and 1852), and by Cairnes (*Character and Logical Method of Political Economy*) (1857 and 1875)".⁷ Or in brief, what Blaug⁸ (inspired by Hutchison?) has called the Mill-Senior-Cairnes line. The most powerful defence of this line came at this time from John Neville Keynes in his book *Scope and Method of Political Economy*, also from 1890. It should be added that Marshall himself was extremely anxious to affirm the continuity from Ricardo of his theoretical development.⁹

⁶ Schumpeter, J., Alfred Marshall p. 238.

⁷ Hutchison, T.W., *A Review of Economic Doctrines 1870-1929*. Oxford 1953 p.18.

⁸ Blaug, Mark, *The Methodology of Economics or How Economists Explain*. Cambridge 1980, chap. 3.

⁹ This aspect is discussed by Argyrous, G., *The Growth of Knowledge and Economic Science: Marshall's Interpretation of Classical Economists in History of Political Economy*, 1990, 22:3. The problem of where to place Marshall in the history of economic thought has been considered by A.E. Thompson in the new edition (1979) of Alexander Gray's classic work *The Development of Economic Doctrines*, of 1931. The edition contains, in

Let us leave Schumpeter's assessment of Marshall and pose instead the question of whether there are traces of Marshall in economic theory today. That many of the "handy tools" are still being used is quite beyond dispute. Furthermore, I would say that, at any rate in textbooks on the subject, the "picture" or model of the market economy's functioning (albeit partial) originated by Marshall can still be encountered. This model united the classicists' "supply side economics" with the emphasis on demand and the underlying maximisation of utility inherent in the new approaches to the theory of value. Applying a possibly rather strained symbolism, the two blades of Marshall's scissors represent Ricardo's and Jevons' respective theoretical starting points.

The "picture", in heavily condensed form, is composed as follows. Using as a foundation such assumptions as diminishing marginal utility and diminishing marginal profit (or alternatively, rising marginal costs), the conditions for an optimal situation on a market (partial equilibrium) can be stated.¹⁰ Maximisation is achieved at the moment when productive resources are so distributed that every good is produced in such quantity that its marginal utility is equal to its marginal cost. It is the market mechanism which is held to bring this about. Through the market, consumers will use their incomes in such a way that the marginal utility of every good bought is equal to the price

addition to Gray's text, a new introduction and four newly-written chapters. It is the introduction which is interesting in the present context. For Thompson says there that Marshall formed a "bridge" between Gray's account of Marshall's contribution to political economy and his own discussion of the question. But he admits that the construction of the bridge is not entirely problem-free. Marshall's contribution to economic science has been underestimated. One reason has been that partial equilibrium analysis has become the property of every student of economics. In this way much of Marshall's other contribution to scholarship has been forgotten. Another forgotten aspect as regards Marshall's contribution to the history of economic thought consists of his efforts to synthesise and resolve theoretical contradictions, e g between classical and the emergent neoclassical political economy.

¹⁰ The question whether these concepts are to be regarded as axioms, assumptions or empirical generalisations can be left aside in the present context. However, the answer to the question is interesting when it is a matter of deciding the various "ramifications" of neoclassical political economy.

of the good. Similarly on the production side, the marginal cost of production of the good in question is equal to the price. Obviously this "solution" assumes that the usual utilitarian behavioural assumptions of utility and profit-maximising actors are met and that the institutional assumptions of perfect competition, perfect information and therefore no transaction costs are valid.¹¹

Today - fifty years since Schumpeter's lecture in New Orleans - it is not stretching things too far to agree with his conclusion. Many important elements of the political economists' "arsenal of analysis" can still be traced back, without much strain, to Marshall's *Principles* and the "handy tools" which it offers. One might perhaps add, with regard to employment of the tools, that there was one universal and fundamental principle, viz marginalism. To have shown the application of this both to the demand side and to the supply side constitutes possibly Marshall's most important theoretical achievement.

Bearing in mind Schumpeter's assessments of Marshall as an economic historian, a question presents itself here. What have the "handy tools" and the marginalist principle to do with economic history? What is the form of the "union" between "historical facts" economic theory? Schumpeter is unlikely to have been unaware of the so-called "methodological battle" which Marshall fought with Cunningham and which signalled, according to one observer, the transition from "good old economic history" to merely "old economic history".¹²

What we can state, however, is that at least since the middle of the nineteenth century there has been an "historical" criticism in England focused against what in our day we have learnt to call classical liberal political economy. It is justifiable, also, to speak of an "English historical school" even though it was not as united as the German (younger) historical school. When Marshall was

¹¹ In cases where all or any of these assumptions are not met, "market failures" may occur. It is in such cases, for example, that the role of the state in the economy can come under discussion. It was to be Marshall's pupil and eventual successor at Cambridge, Arthur Cecil Pigou, who would devote attention to such "external effects" in *The Economics of Welfare* (the first edition of which came out in 1920) and elsewhere.

¹² See Hartwell, R.M., Good Old Economic History, *Journal of Economic History*, vol. 35, 1973. It ought to be added that Hartwell's interpretation is open to debate. We shall come back to this debate.

commencing his economic studies, criticism of the Mill-Senior-Cairnes line was intensive, and in the turbulence which prevailed over the question of what economic science really ought to be concerned with, it may perhaps be said that the historists had the better of the debate to some extent both in its scholarly and its political aspects.¹³ I shall refer later to some of the other positions in this debate.

This is the background against which Marshall's campaign for a separate subject of economics among the academic studies pursued at Cambridge is to be viewed. At the risk of anticipating events we can state that he was to succeed in his campaign. In 1903 "economics" was established as an independent subject - i e a subject no longer linked either to philosophy or history as had been the case previously. The establishment of the subject raises a crucial question. If Marshall is indeed the economic historian Schumpeter would make him out to be, then how was it that he could assist in creating this "economics" which signified, not only in practice but also methodologically, a direct "separation" between political economy and economic history? It is true that no separate subject under the title of economic history existed at the time of the establishment of "economics", but one was to come.¹⁴

¹³ Ashley gives an excellent description of the situation in *Palgrave's Dictionary of Political Economy*. See Palgrave Inglis, R.H. (ed.), *Dictionary of Political Economy*, London and New York, 1894. We shall be coming to this soon.

¹⁴ However, this did not happen until 1929, when a professorial chair in economic history was inaugurated at Cambridge. The first incumbent was J.H. Clapham, who in fact was one of Marshall's pupils. In his inaugural lecture he played down the methodological battle which was being fought out between Marshall and Cunningham. The struggle was over and "economist and economic historian are at peace. We know our limitations. We can sit happily side by side under Adam Smith's great umbrella." The quotation is from Koot, Gerard M., *English Historical Economics, 1870-1926. The Rise of Economic History and Neomercantilism*, Cambridge 1987, p. 196. See also p. 150. In Hartwell's opinion this makes Clapham a representative of the "old economic history". It is an interesting coincidence that in the same year as Clapham became professor of economic history, Eli Heckscher was elevated to a personal professorship in the subject at the Stocholm School of Economics and Business Administration. In this way Heckscher became Sweden's first professor of the subject.

The account which follows has two objects. The first is to try to pin down Marshall's opinions by means of a "re-reading" of some of Marshall's methodological contributions on the question of how economic theory should relate to economic history. How does he regard the possibilities for a combination, or why not a synthesis? At this point we can state that his discussion of these issues sometimes seems surprisingly modern. I am thinking here primarily of the theoretical approaches which the so-called neo-institutionalist school has advocated during recent times. Against the background of Marshall's conceptions these actually stand out as something of a blend of new and old. On the other hand it is sometimes asserted that Marshall was not infrequently vague in his argumentation and sometimes even directly inconsistent.¹⁵ That remains to be seen.

The second objective is to be in a position, by means of the "re-reading", to offer some indication of what the celebrated "methodological battle" between Cunningham and Marshall was really all about. One conclusion - although it means anticipating the discussion - is that the "battle's" significance has been exaggerated. In other words, the intention is that from this point on we shall concentrate our attention on one of Marshall's "minor themes" (to borrow a term from Whitaker),¹⁶ viz that which touches on the question of how economic history is to relate to "economics" or vice versa. In the course of the "re-reading" I shall also furnish comments and present opinions of my own.

¹⁵ This view is asserted by e g J.K. Whitaker in the latter's presentation of Alfred Marshall in Eatwell, J., M. Milgate, P. Newman (eds) *The New Palgrave. A Dictionary of Economics*. London 1987. But Eric Roll had picked out certain inconsistent features of Marshall's works even earlier. See Roll, E., *A History of Economic Thought*, London 1973. It may be added that a new and expanded edition of this classic work was published as late as in 1992. Roll's verdict is still there.

¹⁶ Whitaker, J.K., Some Neglected Aspects of Alfred Marshall's Economic and Social Thought, *History of Political Economy*, 9:2, 1977. Whitaker believes that in assessments of Marshall's contribution to economic science, it is chiefly his partial equilibrium analysis that has been emphasised. In this way Marshall's discussion of the "biological method" and the evolutionary perspective, along with his hesitations over the "economic man" assumption, have been ignored. Whitaker endeavours to show that Marshall was not unfamiliar with the insertion of non-economic motives into economic analysis through "(...) ad hoc modifications of deductions based (...) on the economic motive alone". Whitaker op. cit. p. 166.

The exposition which follows is arranged as follows. The next section provides a brief background description of Marshall's academic career. Next there is a discussion of the position of political economy in England at the end of the nineteenth century (IV). It was not very strong, as we shall see. Marshall's ambition was to strengthen it. His arguments, and the English historians' criticisms of Ricardian political economy, are discussed in sections IV-VII. In the next section (VIII) we let Marshall refute this criticism. In sections IX-XI one of the more prominent representatives of the English historical school, William Ashley, takes the stand. After that it is time for the English variant of the *Methodenstreit*. Cunningham's attack and Marshall's reply form the subjects of discussion in sections XII-XVI. The next two sections (XVI and XVII) are devoted to some later methodological contributions from Marshall's side. Questions such as the fruitfulness of biological analogies in economic science are ventilated here. After this the question of how "economics" is to relate to economic history is brought up again (XVIII). What consequences did Marshall's successful campaign for a separate Tripos have for economic history? The final two sections are devoted to the endeavour to draw final conclusions. But first some necessary background facts.

III

Marshall's academic career began at Cambridge with successful studies in mathematics. If Bernard Corry's account in the *International Encyclopaedia of the Social Sciences*¹⁷ is to be believed, Marshall's choice of subject as a student was not directly consonant with the wishes of his father, John Marshall, despite the fact that the latter's "paternal control and repression had a marked and lasting effect on Marshall (...)"¹⁸. The father's wishes revolved instead around the idea of his son's academic studies making him capable of holding a prominent appointment in the Anglican church.

But mathematics formed an insufficient academic challenge for Marshall. For his hope was that his academic studies would give him an increased knowledge of prevailing social conditions. Marshall wanted to use this knowledge for the purpose of combating poverty. The values on which this

¹⁷ See B. Corry's presentation of Marshall in D.L. Sills (ed.), *International Encyclopaedia of the Social Sciences*, vol. 10, 1968.

¹⁸ Corry op. cit., p. 25.

sense of social "mission" was founded were of both religious, ethical and philosophical (utilitarian) character. If an ecclesiastical career was now uninteresting and mathematics was revealed as inadequate for his "mission", there remains the question: why did he choose economic science? In John Maynard Keynes' celebrated and now classic biography of Marshall we are offered an answer.¹⁹

This centres upon a note made by Marshall in 1917. He was now 75 years of age. The note was really intended for the wastebasket but for some reason it was rescued for posterity by his wife Mary Paley. Marshall wrote that while he was busily engaged in the teaching of mathematics he began to ponder the question "how far do the conditions of life of the British (...) working classes generally suffice for the fulness of life?" To arrive at an answer to the question he was encouraged by "older and wiser men" to study political economy. After having read Mill's *Principles of Political Economy*, Marshall realised that the existence of inequalities in society perhaps had something to do with the fact that the opportunities of attaining a reasonable living standard vary. In order to investigate the matter, or should we say the hypothesis, Marshall decided to make use of the empirical method: "(...) in my vacations I visited the poorest quarters of several cities and walked through one street after another, looking at the faces of the poorest people. Next, I resolved to make as thorough a study as I could of Political Economy." And so it came about.²⁰

It may be added that the note intended for the wastebasket concludes with an admission that touches on the question of the prospects of solving social problems through economic science. For Marshall confesses that despite his having devoted fifty years of his life to a scholarly study of the economy, his knowledge of it has hardly increased: "I am conscious of more ignorance of it than I was at the beginning of the study."²¹ One wonders whether this is a manifestation of becoming modesty or respect for the object of study.

¹⁹ Keynes, J.M., *Essays in Biography*, London 1933, p. 166f. Although Keynes' essay is a famous one, it has been the target of criticism. See e.g. Coase, R.H., Alfred Marshall's family and ancestry, in McWilliams Tullberg, Rita (ed.) *Alfred Marshall in Retrospect*, Aldershot 1990. Coase points out several errors in Keynes' account of Marshall's growing-up and family background.

²⁰ See also Pigou, A.C. (ed.), *Memorials of Alfred Marshall*. New York 1956, p. 10.

²¹ Keynes op. cit. p. 167.

In 1868 Marshall became an assistant lecturer in political economy at St John's College, Cambridge. He was to occupy this post for almost ten years, in fact. What is perhaps remarkable at this point is that during these ten years he did not really publish anything that can be regarded as original. But at Marshall's lectures his students became acquainted with parts of what was to become in time his *Principles of Economics*.²² Obviously it was the works of Ricardo and Mill that were still setting the tone of instruction in "political economy". However, Marshall was not uninterested in the methods and results of the German historical school. One representative of this school to whom Marshall was to come back later was Roscher.²³ It was now, also, that Marshall was attempting to combine his interest in political economy with his skill in mathematics. The idea behind one of these attempts was to translate Ricardo's verbal exposition of the theory of foreign trade into mathematical form. Marshall would find reason to return to the question of the value of mathematics in the study of economics, as well as to the development of the so-called diagrammatical method.²⁴

Stanley Jevons' pioneering work *Theory of Political Economy* was published in 1871. Its pioneering feature was that the problems of the theory of value, to the elucidation of which the classical economists had devoted much intellectual toil, were now redefined. Instead of trying to answer the question of what determines the absolute or objective value of a good, Jevons introduced a purely subjective theory of value to which the concept of marginal utility became the key. We shall not go into detail about this so-called marginalist revolution. Perhaps it should be remarked that Marshall had probably also been thinking along similar "marginalistic" lines in the theory of value field. The question of who was first is not without interest,

²² However, Royden Harrison has reminded us in *Economic Journal* Sept 1963 of some early articles by Marshall in "Two early articles by Alfred Marshall". These were written as early as 1874 and considered the question of whether it is possible to distinguish between facts and values. The question for Marshall must have been how social commitment can be united with a scientific approach. See also Whitaker, J.K.,(ed.), *The Early Economic Writings of Alfred Marshall 1867-1890*. London 1975.

²³ Keynes, *Essays* p. 181ff.

²⁴ The Nobel prizewinner Ronald Coase has discussed this question in "Marshall on Method", *Journal of Law and Economics*, vol. 18, 1975.

and obviously no clear-cut answer is to be found. But we shall leave that question aside.²⁵

Marshall reviewed Jevons' book. According to Keynes the review was not directly negative but "somewhat cool and it points out several definite errors".²⁶ The following quotation from the review suggests that Marshall did not really think Jevons was saying anything new:

"We continually meet with old friends in new dresses ... Thus it is a familiar truth that the total utility of any commodity is not proportional to its final degree of utility ... But Prof. Jevons has made this the leading idea of the costume in which he has displayed a large number of facts."

Marshall himself commented later on his own review of *The Theory of Political Economy*. He admits that he owes a certain debt of gratitude to Jevons but says that it was primarily the works of Cournot and von Thünen that formed the most important sources of inspiration for his *Principles*.²⁷

IV

The 1870s are usually presented in accounts of the history of economic thought as the decade when the application of the marginalist principle gave political economy a new alignment of interest and gave the science a different character. Sometimes the change is characterised as a "scientific revolution" in Kuhn's sense. There is no reason in the present context to enter into a detailed discussion of whether the "marginalist revolution" meets the Kuhnian requirements for a "scientific revolution". On the other hand we may be justified in saying something about the standing of political economy

²⁵ For a discussion of Marshall and marginal utility see Corry op. cit. Eric Roll's verdict is crystal-clear: "Marshall had already developed a similar approach." in Roll, *A History*, p. 362.

²⁶ Keynes, *Essays*, p. 187.

²⁷ See Pigou, *Memorials*, p. 99f. Marshall, Alfred, *Principles of Economics*. Ninth edition with annotations by C.W. Guillebaud. Cambridge 1961, p. 11. Guillebaud's edition of the *Principles* comprises two parts, "Text" and "Notes". In future I shall refer to these as Guillebaud, *Text* and *Notes* respectively.

in Cambridge at this time and about how the subject related to the currents of ideas which would result later on in a separate subject of economic history.

"Political economy" - a discipline with roots going back to Adam Smith and David Ricardo - did not in fact have an independent place in academic studies in England at this time. The subject, or rather the subject field, was virtually included as a part of the "subject block" or "tripos" orientated either towards philosophy, morals and ethics or towards history. This is a circumstance which I believe it is important to bear in mind in appraising Marshall's contribution both to the establishment of "economics" and to the status of economic history.

Nor did political economy as a subject field have any particularly high academic standing at this time.²⁸ It is true that what we today call classical political economy was an English invention and the tradition inherited from Ricardo and Mill was still kept alive. But criticism had begun to be heard in various quarters, criticism which was both ideological and methodological in nature.

Pure economic liberalism, with its leading principle of self-interest as a basic behavioural assumption, had started to be called into question. Certain critics appealed for more ethical and moral attitudes to be adopted by economic science. Others considered that the political implications flowing from the orthodox theory were either erroneous or inadequate when it came to finding solutions to the serious social problems of the age. What the more methodologically-orientated criticism amounted to was that the assumptions and "laws" on which the theories were based bore no relation to reality. In point of fact, the abstract deductive and hypothetical method which had been inherited particularly from Ricardo led up a blind alley. The only way forward was via history. This was the approach which Cunningham came to advocate, but he was by no means alone, and his reasoning perhaps was not specially original either. Let us revert to this question when we come to the "methodological battle".

²⁸ Groenewegen, P.D., Alfred Marshall and the Establishment of the Cambridge Economic Tripos, *History of Political Economy*, vol. 20, 1988, p. 632. Kadish, A., *Historians, Economists, and Economic History*, London and New York 1989, chap. 4. Maloney, J., "Marshall, Cunningham, and the Emerging Economic Profession", *Economic History Review*, vol. 24, 1976. See also Whitaker in *Palgrave op. cit.* p. 351.

Thus, what the criticism of political economy was saying was that its theories lacked empirical groundwork. It was simply unsupported by economic history. Many of the critics therefore wanted to get rid of the legacy of the "classics" and transform economic science into an historical discipline.²⁹ It is important to observe that this criticism was not a direct repetition of the criticism raised by the German historical school against the Mill-Senior-Cairnes line mentioned earlier. Therefore it is not entirely unjustified to speak of an "English historical school" even though these "historists" sometimes based their approach on arguments resembling those voiced by the representatives of the German historical school. This English historical school was not particularly homogeneous either³⁰ but came to participate in the establishing of economic history and in the separating of political economy and economic history.³¹ We may remind ourselves by way of comparison that the methodological conflicts of the burgeoning science of economics never became particularly fierce in the United States. Many American economists came to study in Germany and it was not uncommon for them to become advocates of or at least sympathisers with the programme of the German historical school. They also became interested in criticisms of the orthodox (i.e. Ricardian) economic theory. These circumstances in fact form an important background to the strong position enjoyed in the United States by an institutionally-orientated political economy long after the "marginalist revolution" had been carried through and the neoclassical theory had become dominant in Europe.³²

²⁹ Coates, A.W., *The Historist Reaction in English Political Economy 1870-90*, *Economica*, vol. 21, 1954, p. 143ff. Hutchison, *A Review of Economic Doctrines*, forms one example of an "ultra-empiricist" view of the matter.

³⁰ On this point there is an important difference compared with the approach adopted by economic science in the United States during the latter part of the nineteenth century. There the influence of the German historical school was very much more tangible and direct.

³¹ Koot, G.M., *English Historical Economics, 1870-1926*, p. 194ff.

³² See Gordon, Scott, *The History and Philosophy of Social Science*, London and New York 1991, p. 204f, and Coates, A.W., *Disciplinary Self Examination, Departments, and Research Traditions in Economic History: The Anglo-American Story*, *Scandinavian Economic History Review*, 1990:1, p. 5f.

The historians' criticisms of classical political economy can be summarised, in somewhat simplified form, in three points:

First of all, the scientific status of political economy is called into question, along with the aim of the subject. An economic science must above all be a practical science. There is therefore no very great need for theory. One critic expressed the point as follows: "Political economy is the application of common sense to familiar processes. It explains their nature and manner of working."³³ Secondly, the representatives of the orthodox theory are criticised for being excessively narrow in their approach. To treat the economic factors in isolation from other social conditions is simply methodologically indefensible. Society is a whole and consequently must be studied as such. The most penetrating criticism of this point came from John K. Ingram. The latter had been influenced by Comte's call for an all-embracing social science and the quest for "the laws of social evolution". It should be added that this view was not shared by all English "historists". Thirdly and finally, it was considered that the abstract-deductive method inherited from Ricardo was the wrong path to take if the purpose of acquiring knowledge was to arrive at an understanding of the way the economy functions. The method led infallibly to dogmatic solutions when it came to matters of practical policy. This final point of the "historists'" criticism leads us back to Marshall and to what, after certain complications of a personal nature, was to become the start of his "mission".

V

In 1877 Marshall was compelled to relinquish his teaching post at Cambridge. The reason was simply that he had entered upon the marriage state, and marriage was incompatible with the holding of a teaching appointment at this university with its ancient traditions. At any rate this applied to the younger teachers. His wife was Mary Paley, a political economist and former pupil of Marshall's. Later on she was to become the first female lecturer in political economy at Cambridge. The couple moved to Bristol and University College, where Marshall became professor of political economy.

³³ Coates, *op. cit.* p. 145.

Two years later they published jointly a book with a short but pithy title: *The Economics of Industry*.³⁴ There is one pronouncement in this work which touches on the need for history in the study of economics:

"... a man who confines himself entirely to one narrow branch of inquiring is not likely to make good progress in it. The economist should know something of the history of manners and customs and laws of the principles of mental, moral, and legal and political science."³⁵

In what must be his inaugural lecture at Bristol and has the title "The aims and methods of economic study"³⁶ Marshall emphasises that political economy has natural links with both moral science and history. Economic science must have its methodological roots in history, and the reason is simple. The historical method is the most fruitful empirical method when studying human behaviour.

Any scientific investigation must therefore commence with the gathering of necessary facts. These must then be arranged under economic laws. The third step in the investigative process involves the application of the economic laws to reality, and finally, if reality does not accord with the laws then the laws must be re-examined. Marshall's challenge is to "be always urgent of facts".³⁷

In this connection Marshall also has views on Comtean positivism. He believes it to be impossible to endeavour to develop a science - sociology - which claims to embrace all human activity. He stresses instead that in methodological respects political economy ought to take *history* as its starting point. Although he is critical of the historical school at certain points, he shares the view of Schmoller and his disciples that the primary task of

³⁴ Marshall, A., & Mary Paley Marshall, *The Economics of Industry*, London 1879. For some reason Alfred Marshall dissociated himself from this work in later life. See Whitaker in *Palgrave op.cit.*, p. 351. Keynes, on the other hand, held a very favourable opinion the work. See *Essays*, p. 175.

³⁵ Citation from Kadish, A., *Historians, Economists, and Economic History*. London and New York 1989, p. 130

³⁶ *Op. cit.* p. 130f.

³⁷ *Op. cit.* p. 130.

political economy is to assist in the practical solution of the social problems of society.³⁸

The Marshalls remained at Bristol until 1884, apart from a brief guest period at Oxford. In that year Alfred Marshall was appointed to the professorship at Cambridge which he was to occupy until his retirement in 1908.

VI

Following his return to Cambridge, Marshall seems to have been bent on endeavouring to get the study of economics constituted as an independent branch within the prevailing examination system. He regarded it as an important task to furnish economic science with an independent standing. This meant, for example, his urging the line that subject studies in economics should be distinct from the study of ethics, metaphysics and philosophy. The emphasis on the value of history in political economy is not longer particularly prominent. For in arguing for an independent "economics" Marshall was to turn on its head the methodological rule which he had propounded previously with regard to the connection between "facts" and "laws". He did this in his inaugural lecture in 1885, of which the subject was "The present position of Economics".³⁹ The lecture dealt with considerably more than the status of the subject, however. It contains a manifesto - and a manifesto constituting the launch of a campaign by Marshall for an independent "economics". Therefore there is occasion to examine his arguments, especially because in them Marshall hardens his tone against various manifestations of "historism" and the relativisation of economic theory. But the tradition inherited from Ricardo also falls under criticism.

How did Marshall regard "the present position of Economics"? The answer was that the position was certainly not particularly good. Many of the economists of significance for economic science are no longer alive: Mill, Cairnes, Bagehot, Jevons and Toynbee are mentioned, and also, as in duty bound, Marshall's predecessor in the chair, Henry Fawcett. The fresh crop of economists in this tradition is also meagre. Therefore it is important, says Marshall, for energy to be applied to strengthening the position of economic science. The problem is that in today's situation there are few who have the

³⁸ Op. cit. p. 133.

³⁹ The lecture may be found in Pigou, *Memorials*, p. 152ff.

capacity for this. Why have matters come to such a pass? Surprisingly enough, he lays the blame at the door of David Ricardo.⁴⁰

The criticism raised against economic science in various quarters is based on a misunderstanding, viz that the political economy which has been evolved since the early part of the nineteenth century lays its main emphasis on abstraction and deduction, and a coldblooded attitude to "facts". This sort of approach lies at the heart of the misunderstanding. Abstract reasoning is the characteristic of "one masterful genius, who was not an Englishman, and had very little in common with the English tone of thought". There is no doubt that Ricardo and his Jewish origins are being alluded to: "no English economist has had a mind similar to his".⁴¹

The present generation of economists has a different attitude, says Marshall. For its representatives, the question of method is not one of either/or. For the deductive and the inductive method can complement each other. This outlook is not a novel one, however. It was already familiar before. The truly novel element is the discovery that man can himself help to change the circumstances under which he lives. And, adds Marshall somewhat cryptically, he becomes changed with them.

The great error of which Ricardo and his successors in the early years of the century were guilty was that they disregarded "a large group of facts, and a method of studying facts which we now see to be of primary importance".⁴² The error can be compared to that committed by lawyers when they imposed English law on the Hindus of India. The lawyers believed that "the world was made up of city men". The most devastating consequences of the economists' error arose over the distribution question: "It led them to regard labour simply as a commodity (...) and laid down laws with regard to profit and wages that did not really hold even for England in their own time." What they failed to take into account was that customs, norms and institutions are not given for eternity. And he exemplifies - the improvements which have benefited the working classes most of all could not have been predicted with the existing theory and have therefore been underestimated.⁴³

⁴⁰ Pigou op. cit. p. 152.

⁴¹ Op. cit. p. 153.

⁴² Op. cit. p. 154.

⁴³ Op. cit. p. 155.

VII

Up to this point Marshall's argument can be interpreted as meaning that he is going to proclaim a new task for economic science, and that the "shortsightedness" which characterised the former generation of economists is now to be replaced by an orientation which takes greater account of changes in institutions and values. But that interpretation is wrong. In spite of the criticisms, the role of the former economic doctrines is not played out. It is true that they cannot always be of help when it comes to distinguishing what is true and what is false in each individual case. But these doctrines have another kind of universality. They are to be used in the first instance as "an engine for the discovery of concrete truth, similar to, say, the theory of mechanics". This in turn means that the question whether a theory is to be accepted or not is not primarily a matter of whether its statements are correct or not. The strength of the theory lies instead in "the road" to the conclusions.

It ought to be added that this is my interpretation of the stress laid by Marshall on "the engine of discovery". It may be wrong. However, I believe that the following Marshallian metaphor touching the resemblance between physics and economics lends some degree of support to the interpretation.

The theory of mechanics admits of no exact pronouncements as to the weight which bridges can bear without collapsing. Every bridge has its own particular properties with regard to design, material and location. But what the theory does provide is a universal principle which can be utilised so as to establish what strains a given bridge can tolerate. To apply the principle, however, does require a knowledge of the conditions under which the bridge was built and the materials which have been used.

Let us suppose that all bridges in Venice are built of approximately similar materials and by the same methods of construction - i e in accordance with a specific underlying doctrine. We suppose further that this doctrine was also a leading principle of other bridgebuilding ventures at other locations and under different conditions. What happens, Marshall wonders, if a newly-built bridge in Venice collapses the moment the first equipage attempts to cross the canal?

There is a considerable risk that some judges will at once draw the conclusion that the scientific method which was the leading principle of bridgebuilding ought to be discarded. The method's fundamental principles

have simply been falsified.⁴⁴ A further conclusion might be that there are therefore no general principles setting forth how bridges ought to be built. Marshall cannot accept that conclusion, however. "This is exactly the mistake which seems to have been made by the extreme wing of the 'real' or historical school of German economists."⁴⁵ The baby should not be thrown out with the bathwater, in other words.

At this point Marshall makes reference to the use made by the "older economists" of the "economic man" principle. This principle should not be interpreted too literally. Individuals are not always actuated by selfish motives; very unselfish behaviour - e g "saving capital for the benefit of others" - may very well occur in daily life.⁴⁶ Therefore the fact that a bridge falls down is not a sufficient reason to discard a principle of bridgebuilding which has proved useful in many other instances.

Thus economic science has great tasks before it. Even though Ricardo drew erroneous conclusions in many respects and/or worked on assumptions which were too restrictive, the subject field which he cultivated is still relevant: "there are very few fields which offer so important and rich a harvest to scientific enterprise."⁴⁷ The rich harvest, if I have understood Marshall correctly, is not independent of Ricardo's "engine of discovery".

The ability of economic science to offer solutions to practical economic problems should not be overestimated, however. Marshall examines two limitations of a fundamental nature. In the first place, economy and economic problems cannot be treated in isolation from other social conditions. This is an attitude which Marshall associates with Comte and the latter's ambition to create an all-embracing social science, i e sociology. The second objection has been expressed by the historians. The solution to today's social problems is not to be found in the one theory or the other but must be sought in facts. In this case the facts which historical experience offers are superior to possible theories and the conclusions concerning concrete

⁴⁴ Obviously Marshall is not using the Popperian concept of "falsification". But is he not indicating the problems which can occur through the use of "naive falsificationism"? See Blaug, *The Methodology*, op.cit. p. 120ff.

⁴⁵ Pigou, *Memorials*, op. cit. p. 160.

⁴⁶ Op. cit. p. 160.

⁴⁷ Op. cit. p. 163.

situations which they can contribute. What position does Marshall adopt with respect to these assertions?

As regards the Comtean standpoint, Marshall admits that Comte helped convincingly to show how complex different types of social phenomena really are. However, it is one thing to announce this but another and considerably more difficult matter to design an all-embracing social science to take account of it. Such a science is not in sight. Marshall's advice accordingly becomes that "we must do what we can with our present resources"⁴⁸ and that in such a situation ordinary common sense can lead us a little way along the road.⁴⁹

What Comte simply failed to grasp is that a common and frequently fruitful method of tackling complex problems is to break them down into separate components. Perhaps such breakdowns are not always made with the aid of any formal theory or analytical method, but when once the breakdown has been accomplished, each part can be subjected to "a treatment by a specific scientific organon, if there be one ready". With regard to the aspect of society which we call the economy, Marshall is not in any doubt. In this field there is an established scientific method: "The economic organon brings to bear the accumulated strength of much of the best genius of many generations of men".⁵⁰ Despite the criticism of Ricardo, Marshall does not wish to break with the classical tradition but emphasises continuity instead.⁵¹

⁴⁸ Op. cit. p. 164.

⁴⁹ Later on Marshall was to make this approach into a leading principle for formulating economic theory. In a later edition of the *Principles* he writes in the introduction: "This volume then is concerned throughout with the forces that cause movement: and its key-note is that of dynamics. But the forces to be dealt with are so numerous, that it is best to take a few at a time; and to work out a number of partial solutions as auxiliaries to our main work. Thus we begin by isolating the primary relations of supply, demand and price in regard to a particular commodity: we reduce to inaction all other forces by the phrase 'other things being equal'. We do not suppose that they are inert: but for the time we ignore their activity".

⁵⁰ Pigou, op. cit. p. 164.

⁵¹ See Argyrous, G., *The Growth of Knowledge ...*

VIII

Now to the question of how Marshall meets the criticisms and objections of the "realistic" or historical school. As regards the level of ambition or the research programme which this school presented, Marshall offers no real objections. He particularly appreciates the desire to try to chart the historical background of diverse customs and institutions: "such studies have led directly to some broad generalisations that have greatly illuminated our path (...)". But these generalisations are unfortunately inadequate as a basis for the solution of "problems of our age". And above all they must not lead us to repudiate universal theories "and to seek the solution of economic difficulties in direct facts". For facts cannot speak for themselves. It is one thing to make observations of economic phenomena, but these cannot give any idea of the causes of the events whose result we observe. It is possible that the observations may give an indication of the time-sequence in which different events have occurred. To establish "that an event followed on, or that it coincided with, a certain group of events (...) gives no guidance except for other cases in which exactly the same set of facts occurs over again, grouped in the same way".⁵²

History seldom offers such cases, for "history does not repeat itself (...) the past can never throw a simple and direct light on the future". Therefore facts alone can never form the basis of an interpretation of economic history. For the same facts can be employed by different scholars to support competing conclusions. Nevertheless this does not necessarily mean that the one is more honest or nearer the truth than the other. "But, by grasping the same facts in different ways, by making different parts of the truth prominent, they suggest opposite conclusions."⁵³ How is this problem to be tackled?

In order to interpret economic facts in a satisfactory way at all - and this advice applies to the study both of economic history and of the present economic situation - we have to have some view of what sort of effects can be expected "from each cause and how these effects are likely to combine with one another".⁵⁴ It is obvious that Marshall's earlier insistence that economic analysis should have an empirical and historical support is no longer as forceful. Facts are "by themselves (...) silent".

⁵² Pigou, *op.cit.* p. 165-166

⁵³ *Op. cit.* p. 166-167.

⁵⁴ *Op. cit.* p. 168.

Marshall's conclusion bears repeating: facts do not speak for themselves. Can he mean that both the name we give to "facts" and the various kinds of causal connections by which we arrange these facts can (and perhaps above all should) be discussed? No answer is forthcoming.

On the other hand he does contend that economic science is now confronting a very important task, thanks to its ability to pass opinions about *possible* causal connections. In short, deduction as a method cannot be rejected. Kadish has interpreted Marshall's position as follows: "Rather than start from the collection of facts, the student was now urged to turn first to the study of theory".⁵⁵ But Marshall comes up with an important reservation which Kadish does not notice. For according to Marshall, there is a connection between economic theory and economic reality which is not entirely without problems. What are regarded as the central issues of economic science, i.e. the "core" of economic theory, are not independent of time and space. Therefore even the study of economic theory ought to contain an historical element. Marshall's own conclusion unfortunately does not do a great deal to clarify the question of how these two aspects are to be taken into account: "(...) the growth of the economic science is itself chiefly dependent on the careful study of facts by the aid of this knowledge".⁵⁶ Marshall does not supply any detailed methodological suggestions as to the form this research effort is to take. Once again, in other words, we can observe a degree of indecisiveness over a crucial question.

But Marshall does admit that the scientific approach which he advocates brings special problems as regards the study of and research into older economic history. To begin with, the quantity of economic facts is limited. The necessary source criticism therefore becomes more difficult. It is seldom possible to subject the sources to the necessary procedures, viz to "cross-examine, balancing them against one another and interpreting them by one another".⁵⁷ The commentary is really quite devoid of interest at this point, since it concerns a self-evident question of source criticism, viz what data exist and how these are to be interpreted in order to be regarded as "facts".

⁵⁵ Kadish, *Historians* ... p. 134.

⁵⁶ Pigou, *Memorials* ... p. 168.

⁵⁷ Op. cit. p. 168.

In the second place, and the complication is no less annoying, today's economic and social conditions are quite distinct from those which prevailed in "olden" times (and by "conditions" Marshall probably means here those relating to both institutions and values). Not least, economic history has helped to show that the universal assumptions of classical political economy have shortcomings. But after all the solution to the problem is not more facts. For even when a large body of facts are available they have to be processed. This processing requires a scientific method. Economic science possesses the method. Without doubt, Marshall is on to a key question here. Unfortunately he chooses not to go into detail about the answer. The reader/listener receives no detailed instructions as to what form the combination of historical facts with a general economic theory should take.

At the end of his lecture Marshall raises the question of the future task of economic science at Cambridge. He makes no secret at all of his mission. The task is to help to solve the concrete social problems facing England. To accomplish it successfully, however, requires an adequate scientific schooling which Cambridge has hitherto been unable to provide. Students interested in Economics have been compelled to study the subject within the framework of the Moral Science Tripos. This has involved special difficulties, for these students "are not attracted by the metaphysical studies that lie at the threshold of that Tripos".⁵⁸ Therefore a subject field of pure economics is required. Only when such a subject is in existence will the conditions have been created for the training of political economists who "stand fast by the more laborious plan of interrogating facts in order to learn the manner of action of causes singly and in combination, applying this knowledge to build up the organon of economic theory, and then making use of the aid of the organon in dealing with the economic side of social problems".⁵⁹

Without political economists of this type, questions concerning "the economic evils of the present day" are at risk of being handled by "impetuous socialists and ignorant orators". As regards the historically-orientated economists and their urging of the importance of understanding the past, Marshall does not believe that that discipline can contribute appreciably to the solution of current social problems.

⁵⁸ Op. cit. p. 171.

⁵⁹ Op. cit. p. 171.

What is it that these historically-orientated economists are advocating? What is it about their criticisms of the Ricardo line that Marshall objects to? Can one speak of an "English historical school"? What role does Cunningham play in all this?⁶⁰ Does he set the tone? The questions are many. Let us attempt a few answers. But we shall start by taking a necessary backward glance.

IX

In May 1876 the "Political Economy Club of London" celebrated the centenary of the publication of Adam Smith's "Wealth of Nations". Stanley Jevons has documented what happened at the meeting. Here we rely on Hutchison's summary of the event.⁶¹ He writes: Mr Gladstone was in the chair. The company was representative, in the most distinguished way, of politics, learning, the city, the civil service, and the aristocracy (...) and comprised a social and intellectual blend remarkable even in the England of that period. The eight Cabinet Ministers, or ex-Ministers, were headed by the chairman, Forster, Goschen, and Lowe. The regular members included Chadwick, Newmarch, Bagehot, and Morley, and the comparatively small company of university professors was represented by Fawcett, Thorald Rogers, Cliffe Leslie, and Jevons (...)"⁶² The question for the day was: "What are the more important results which have followed from the publication of *The Wealth of Nations* just one hundred years ago and in what principal directions do the doctrines of that book still remain to be applied?"⁶³

According to Hutchison, the subsequent discussion was no innocuous dinner-table conversation but "reads more like a forthright politico-economic debate with something of a *Methodenstreit* being waged in the background".⁶⁴

The debate was led off by Robert Lowe, a former chancellor in Gladstone's government. And his opening question was not of a political character as one might think. It was methodological and ran as follows: What is the vital

⁶⁰ Kadish, *Historians ...* p. 144.

⁶¹ Hutchison, *A Review of Economic Doctrines 1870-1929*, p. 1.

⁶² Op.cit.p.1.

⁶³ Op. cit. p. 1.

⁶⁴ Op. cit. p. 2.

criterion of a useful economic theory? The answer ought to have been Milton Friedman's: the theory's predictive capacity! Lowe held that Adam Smith was successful in terms of that criterion. Smith's most important scientific contribution, therefore, was the founding of "a deductive and demonstrative science of human actions and conduct". A fundamental ingredient of the theory was methodological individualism: "(...) every man is the best judge of his own interest, and in doing the best for himself he is doing the best for the state". Certainly criticisms had been raised and the standing of classical political economy had been called into question, but in this field there is no more to be done: "(...) the great work has been done". G.W. Norman, the oldest member of the Club, agreed. As long as 55 years before, this gentleman had been familiar with the ideas expressed by Ricardo, Mill the Elder and Mill the Younger, Torrens, Malthus and Tooke. These had built on Smith. And Smith's doctrines, said Norman, were "in fact unattackable; they are true now and will be true for all time".⁶⁵

But there were critics among the company as well. One of these was Thorald Rogers. His criticism, however, was not concerned with Adam Smith's economic analysis but with the way in which certain people have interpreted that analysis. Rogers was unable to agree that Smith was a representative of pure deductionism. For Smith, historical observations were an important source of knowledge of economic reality and thus of the theory of the same. The great error was that Smith's successors simply "forgot" history as the theory continued to evolve.

*"There is to my mind nothing more significant than the difference of the process by which Adam Smith collected his inferences, and that by which his followers or commentators have arrived at theirs. Of this I am sure, that if they had adopted the principles on which he reasoned, we should have been saved a vast number of those fallacies which discredit our science."*⁶⁶

X

In Hutchison's interpretation of the history of economic doctrines, the period 1870-1890 represents a transitional period during which a "creative debate on the history of English political economy" was conducted. The conclusion may be correct, but with regard to the criticism of the Ricardo line it is of

⁶⁵ Op.cit.p.3.

⁶⁶ Op. cit. p. 4.

considerably earlier provenance. Moreover, it is not separately noticed in the literature of doctrinal history. However, Ashley's contribution to Palgrave's *Dictionary of Political Economy* of 1894 may give certain preliminary indications concerning the questions at issue before we go into the twists and turns of the Marshall-Cunningham controversy.

William James Ashley (1860-1927) is perhaps the foremost representative of the English historists and has also been called an English *Kathedersozialist* comparable to and influenced by Schmoller.⁶⁷ In 1888 he brought out his *Introduction to English Economic History and Theory*. The message is clear. Economic development is an evolutionary process. It cannot be predicted, but on the other hand it can be studied. Economic theory is a part of this process. It means that economic theories "are not universally true, they are true neither for the past ... nor for the future."⁶⁸ Ashley was offered a professorship in economic history at Harvard in 1892.⁶⁹ Thus he became probably the first professor of the subject in the world. At Harvard he came to function as a sort of mediator between historically- and theoretically-orientated economists.⁷⁰ The role was not a new one, however. During his time at Oxford he had attempted to reconcile methodological differences.⁷¹ However, in political respects he was a critic of *laissez faire* and had a strong faith in the ability of the state to solve "the social problem". After he returned to England he came to think of himself as an outsider in economic science. One reason was certainly the position which Marshall had by then succeeded in securing for economics.⁷² Nor would he show any great interest in trying

⁶⁷ Koot, *English Historical Economics*, p. 102.

⁶⁸ Op. cit. p. 108.

⁶⁹ See Cole, Arthur H., Economic History in die United States: Formative Years of a Discipline, *Journal of Economic History*, 28 Dec 1968.

⁷⁰ Coates, A.W., *Disciplinary Self-Examination*, p. 8.

⁷¹ Koot, op. cit. p. 104ff.

⁷² When Marshall retired in 1908, Ashley applied for the vacant chair. According to Koot, Marshall did everything he could to ensure that the considerably younger, and above all more theoretically-orientated, A.C. Pigou should become his successor. And so it turned out. In 1926 Ashley (66 years of age) was elected president of die totally new Economic History Society. The subject of economic history had now established its academic credentials. But Ashley had his doubts over the separation between economic theory, applied economics and economic history. In his presidential address

to achieve a compromise between the opinions of the theoretically- and historically-orientated economists respectively.

Now for Ashley's contribution to Palgrave's *Dictionary*. His task is to define the meanings of the main entries "historical method", "historical school of economists" and "economic history".

As regards the historical method, it is not specially fruitful to contrast it with the deductive. The study of economics can be concrete without being historical. An historical study can have at least partially deductive starting points. And he exemplifies: "(...) even the history of a battle, or other concrete event, is necessarily abstract, in the sense that it fastens upon certain salient, and omits what are regarded as inessential details".⁷³ But there are certain essential differences between the historical method and what he continues to call the static method. Both methods can arrive at laws or tendencies touching upon economic development. The difference is that the static method's result is based on fixed prior assumptions of an hypothetical nature. John Neville Keynes's *Scope and Method of Political Economy* is the most prominent manifestation of this approach. The historical method's sphere of interest is to discover the laws of economic progress without limiting assumptions. Therefore these laws will be more complex in character. Whereas the static method has its roots in physics and mathematics, the exponents of the historical method seek fruitful analogies with the views on development held by modern biological science. In brief, the starting point of any theory of economic development must be organic and therefore "the statical method of study [is] inadequate". If we accept the historical method, then economics becomes not an independent discipline but

he delivered the following somewhat acid comments: "The theoretical economists are ready to keep us quiet by giving us a little garden plot of our own; and we humble historians are so thankful for a little undisputed territory that we are inclined to leave the economists to their own devices." But the responsibility also rests on the inability of economic historians to create a "doctrine of the economic development of nations (...)". (Ashley, W.J., *The Place of Economic History in University Studies*, *Economic History Review* 1, Jan 1927.) In his lecture Ashley makes use of the term "evolutionary economics". One question which is interesting but which we shall make no attempt to answer here is whether Ashley had been influenced by Veblen.

⁷³ Ashley in *Palgrave*, p. 308. It is evident that Ashley does not make any distinction between abstraction and deduction.

an aspect of the scientific study of society. In this study it is impossible to disregard political institutions, religion, education, moral principles etc even "when special emphasis is laid on its industrial side".⁷⁴

In conclusion, Ashley observes that the historical method also implies the idea that economic and social development has a goal. A process of development probably has to have a "reference to an end (...) The consideration of the ideal form of social order thus comes into prominence, and in this way the study of economic science is brought very closely into relation to ethics".⁷⁵ Ashley does not go into detail as to how this teleological conception follows from an adherence to the historical method. In my opinion the causal relation is more than problematical.

As regards Ashley's fairly detailed treatment of different historical schools, we shall confine ourselves here to his view of the school's position in England. He considers that the deductive or theoretical school is still the dominant one in England (as in Austria and Italy). However, there are early if scattered expressions of a criticism of it. One critic, Richard Jones, was on the scene early even compared with exponents of sundry variants of the German historical school; he had repudiated the Ricardian doctrine of distribution, which in his view was unhistorical, as far back as 1830. But Jones' words fell largely on deaf ears.⁷⁶ Not until the 1870s is it possible to speak of "historical" criticism in England. The latter's most prominent representative was Cliffe Leslie. He made an important contribution to the introduction of the German historical school's programme into England.⁷⁷ However, it was William Cunningham who was to take as his starting point one of the programme's more important demands, viz that the study of

⁷⁴ Op. cit. p. 309.

⁷⁵ Op. cit. p. 309f.

⁷⁶ Jones, R., *Essay on the Distribution of Wealth*, 1831.

⁷⁷ Ashley cites Jones, R., *The Political Economy of Adam Smith*, 1870 and *On the Philosophical Method of Political Economy*, 1876. Leslie was also influenced by August Comte and the latter's efforts to create an all-embracing science of society, as appears with great clarity from the following citation: "the whole economy of every nation is the result of a long evolution in which there has been both continuity and change, and of which the economical side is only a particular aspect or phase. And the laws of which it is the result must be sought in history and the general laws of society and social evolution."

economics must begin with "detailed study and systematic teaching of economic history (...)"⁷⁸. The work alluded to here is obviously *Growth of English Industry and Commerce*. Nevertheless one cannot speak of a true English historical school. Moreover, the theoretical school is strong. Ashley refers here to Marshall's inaugural lecture of 1885 and to John Neville Keynes' methodological "manifesto", *Scope and Method*.

XI

And so to the treatment of the main entry "Economic History". Ashley's approach becomes less academic here, and time and again one can sense certain ironic undertones. He starts off with the question of the link subsisting between economic history and economic theory. We ought to bear in mind that when Ashley was writing this, economic history as a subject had no given or established place in academic teaching or scholarship. This does not mean that his answer to the question is devoid of interest. On the contrary, it has a surprising topicality despite the fact that it was delivered a hundred years ago.

Ashley distinguishes five different approaches to the relation between economic history and economic theory; the first of these he calls "the no-connection view". It supposes political economy to be a purely deductive science whose theories are based on certain simple and abstract postulates. The postulates are so self-evident that every thinking person accepts them without ado. There is no great need of "facts". For the practitioners of this type of political economy the need for economic history is about as great as the need for heraldry or genealogy!

The second view, which he calls "the hand-maid view", is a minor modification of the first one. Those who believe in economic laws may at times evince a certain degree of interest in buttressing these laws empirically. Economic history can help in this. If facts correspond with the theory, that is good for facts. If they do not, so much the worse for the facts - and for economic history.

But there are other ways out of the difficulties as well. If economic history shows that the theory's abstract conclusions can be called into question two possibilities are open. He calls this idea "the corrective view". The questioning of the conclusions can lead either to a re-examination of the

⁷⁸ Ashley in Palgrave's *Dictionary of Political Economy*, p. 313.

basic postulates or to a search for "disturbing influences". Ashley's reaction to this view does not seem entirely negative. Certain economists, including Cairnes, seem to have adopted the latter attitude, "but there are few examples of the practical application of the implied rule."⁷⁹

The fourth possibility is "the concurrent view", a fairly common one according to Ashley. The solution of the "relation problem" is simply to eliminate it. Economic theory and economic history have quite separate spheres of scholarly interest. The two sciences cannot be compared in methodological respects either. One devotes oneself either to the one subject or to the other. There is no reason to mix up the two.

The fifth and final view is frequently associated with representatives of the "historical school". It is called the "supersession view". The old political economy will and should be superseded by a new version whose alignment will be based entirely on the historical method. But, as Ashley indeed points out, such a view can lead to two different conclusions. Some will entirely reject the "laws" relating to rent, wages, profits etc formulated by the classicists. These will then be replaced by new inductively-developed "laws" instead. But Ashley says: "This view (...) is seldom directly formulated, and may perhaps be said to be due to certain vagueness of thought as to the character of economic 'laws'." The second approach is based on the notion that political economy will be replaced once and for all "by a doctrine of economic development - a philosophy of economic history; a view which is largely due to the influence of modern conceptions of evolution, and of the organic nature of society".⁸⁰ In this approach, "abstract deductive theory (...) [will] continue to be of use, as a *minor* (my italics) method of investigation, and as a useful preparatory training, but it will no longer dominate the field of economic thought".⁸¹ One can sense that this is the opinion which Ashley himself finds most sympathetic. Now we shall go over to Cunningham and the so-called "methodological battle" which was fought out between him and Marshall.

⁷⁹ Ashley, op. cit. p. 675.

⁸⁰ Op. cit. p. 675.

⁸¹ Op. cit. p. 676.

XII

It was William Cunningham who introduced economic history as a subject at Cambridge. He became a lecturer there in 1878 and by then already had definite views concerning the relation between history and political economy in its classical version. He became a formidable critic of the Senior-Mill-Cairnes line mentioned earlier. One problem for Cunningham was that at this time there were no real outline works of an economic-historical character. In order to supply this deficiency he wrote a textbook of the subject himself. The result was *The Growth of English Industry and Commerce*. The first edition of the book was published in 1882. The book became a much-appreciated standard work and grew in its number of volumes over the years. When the seventh and last edition of the book appeared it comprised no fewer than three parts and had by then already been dubbed "little Cunningham".⁸² It seems that both adherents and critics of Cunningham's view of economic history are agreed that *The Growth* laid the foundations for the study of English economic history.⁸³ The work has even come to be regarded as representing the real prelude to the subject's "take-off".⁸⁴

Cunningham was critical of every form of deduction and *a priori* reasoning. His remedy for the tendency of political economy towards abstraction was history and the historical perspective. If that perspective were to be applied to economic science itself, said Cunningham, the economic doctrines which appeared during different eras would be shown as being in the highest degree influenced by the specific historical conditions that prevailed during those eras. In consequence of this, Cunningham advocated that students who were interested in economics should first of all familiarise themselves with the history of economic thought.

Economists schooled in the classical tradition were in Cunningham's view unfit to pronounce upon "real" economic conditions. Therefore they were incapable of giving advice on political questions either. Attempts to find universal economic laws for society based on general assumptions about human psychology were misdirected. Statements made by orthodox theory

⁸² Koot, op. cit. p. 139.

⁸³ Op. cit. p. 135.

⁸⁴ Harte, N.E. (ed.), *The Study of Economic History. Collected Inaugural Lectures 1893-1970*, London 1971, p. xviiiiff.

concerning rent, population, wages and profits were of no practical value.⁸⁵ Not even the new marginal utility theory of value formulated by Jevons receives any mercy under Cunningham's critical scrutiny. Admittedly the theory was capable of being expressed in mathematical form, thus appearing more "scientific" than earlier theories of value. But, says Cunningham, while the theory was certainly universal in its "form" it was nevertheless not "appropriate" to the study of the real economy or of economic history.⁸⁶ At this point it may be remarked that in his political value-judgments, Cunningham may be regarded more as a nationalist and protectionist than anything else. He has also become noted for his favourable view of mercantilism. In contrast to Marshall, however, he was not specially interested in practical policy and possible solutions to social problems. But he did become involved in the tariff question, arguing for protectionism and more generally for the desirability of a *Sozialpolitik* in England along German lines.

Cunningham's attack on Marshall had its genesis not only in different methodological approaches. There were personal reasons as well for Cunningham's somewhat intransigent attitude to Marshall. For Cunningham had applied for the professorship in political economy to which Marshall was appointed in 1884 (taking up his duties in 1885). After Marshall had taken over the post Cunningham had hoped to be able to teach economic history alone and thus within the ambit of both the History Tripos and the subject field that included the moral sciences. Marshall did not permit this, however. Cunningham was allotted the task of teaching economic theory particularly.⁸⁷ The opportunities for developing economic history were thereby limited. In 1888 Cunningham relinquished his university lectureship at Cambridge and took up an appointment at Trinity College. He was never again to obtain a post at this university. But he did not abandon the struggle. And his opponent was now no longer a scientific tradition. It had a face. It was that of Alfred Marshall.

XIII

Cunningham's first attack came in 1889 in an address to the British Association for the Advancement of Science. The starting point for the

⁸⁵ Koot, op. cit. p. 139.

⁸⁶ Op. cit. p. 143f.

⁸⁷ Op. cit. p. 142.

criticism was the way in which Marshall, in his inaugural lecture, had dealt both with the medieval English and with the present Indian agriculture. Instead of accepting and proceeding from a realistic description of the differences which existed in terms of production forms, land ownership etc, Marshall had strained to find resemblances between the two agricultural systems. Cunningham is in no doubt as to the reason. Marshall had selected and arranged facts in such a way as to be capable of illustrating Ricardo's theory of rent.

Despite the fact that Marshall expressly repudiated Cunningham's interpretation, the criticism was still there when the address was published later on.⁸⁸ But it was not only these attempts to prove underlying universal principles by means of historical examples that upset Cunningham. He was evidently touched on the raw by the criticism which Marshall, in his inaugural lecture, directed at "the historical school" in England and this despite the fact that the criticism was extremely mild and in no way aimed at Cunningham personally.

In 1890 Cunningham launched another attack.⁸⁹ Again it is Ricardo's theory of rent which is the target. This time Cunningham chooses to express himself ironically on the subject of Marshall's attempt to make the theory into a general one. Marshall must simply have been joking with his readers: "(...) it is not always easy to tell when the Professor of the dismal science is making a joke".⁹⁰

It was to be some time before Marshall allowed himself to be provoked by Cunningham's criticisms. After the publication of the *Principles* in 1890, however, Cunningham found a new target. His article entitled "The Perversion of Economic History", of 1892, took the form of a ruthless assault on the two introductory chapters of the *Principles*. They deal with "The Growth of Free Industry and Enterprise" and "The Growth of Economic Science". It is Cunningham's "notice" which constitutes the prelude to what has gone down to history as a *Methodenstreit*. Marshall's contribution to it is limited to a reply, and a fairly brief one at that. But let us return to Cunningham.

⁸⁸ Maloney, "Marshall, Cunningham ... ," p. 441f.

⁸⁹ The title is "What did our Forefathers Mean by Rent?", *Lippincott's Magazine*, Feb 1890. Information from Maloney, op. cit. p. 442.

⁹⁰ The citation is from Maloney, p. 442.

Marshall's aim in these introductory chapters, Cunningham declares, is to show that man as an economic being has been driven throughout the ages by a sort of "spirit of maximisation" but that this spirit has been restrained by a variety of institutional conditions, customs etc. Economic history from the Middle Ages onwards is a history of the gradual demolition of these obstacles to the rationally-calculating individual. The element of perversion in such a way of writing history is self-evident in Cunningham's eyes. That the motive for the economic actions of mankind should be the same whatever historical period or whatever society is involved, and that these motives should "have produced similar results, and that, therefore, it is possible to formulate economic laws, which describe the action of economic causes at all times and in all places", is a conception which Cunningham finds utterly unacceptable.⁹¹ To approach history with preconceived notions of this sort concerning the basic springs of human action shows remarkable intellectual dishonesty. Marshall's approach leads either to misinterpretations of facts or to a disregard for facts. Marshall is simply disqualified as an economic historian.

What seems to upset Cunningham most is that an economist should venture to step into the domain of economic history. One feature of the affair is that some of the book's reviewers have held its value to be contained precisely in the historical retrospect in the introduction. These reviewers have not realised that Marshall's survey was based on "two or three badly chosen books".⁹² Cunningham scents a conspiracy. The economists are simply trying to subordinate economic history to themselves. This is revealed inasmuch as:

*"... the ordinary economist ... professes himself extremely interested in History, and like a French King ... expresses a wish to do anything he can for it. To this polite desire it is surely not discourteous to reply, laissez faire, laissez aller. Economists do not leave it alone; they do not pursue it seriously, but try to incorporate some of its results into that curious amalgam, the main body of economic tradition; and the result is the perversion of economic history."*⁹³

⁹¹ Maloney op. cit. p. 442.

⁹² Koot, *English Historical Economics*, p. 145.

⁹³ Cited from Koot, op. cit. p. 145.

Cunningham is also critical of Marshall's methodological individualism, as we would call it today. In presenting the history of the English economy, for example, to view it as a question of the growth of freedom of the private individual, and to make increasing individual liberty the main cause when explaining the rise and development of free enterprise, is an entirely erroneous angle of attack. In Cunningham's view it is not the individual who stands at the centre but the nation. A true economic science, therefore, will be based not on the individual but on society at large. And society "does not lay down universal maxims for the world at large, nor does it concern itself with the private affairs of individual men (...)" It is the nation which ought to be the obvious starting point and "the industrial life of the nation is correlated to the social conditions which its constitution exhibits and maintains".⁹⁴

XIV

Marshall's contribution to the methodological battle, after Cunningham had challenged him by launching five published attacks over a period of three years, was confined to a single reply.⁹⁵ His "A Reply" is a swift riposte to Cunningham's criticisms of the introductory chapters of the *Principles*. It was printed in the same number of the *Economic Journal* as Cunningham's notice of (part of) the *Principles*.⁹⁶

What provokes Marshall to indignation most is that in his opinion Cunningham has misinterpreted his exposition at a number of points, and probably deliberately at that. He has done this by tearing quotations from their context, for example, and also by means of "one infiltration of a rough word into a plausible generalization so as to turn it into an absurd one".⁹⁷ Marshall also makes the point that he does not usually respond to criticisms directed against him. But there is cause for a breach of the principle on this occasion. One such cause is that Cunningham's false interpretations will be read by scholars in other countries and thus lead to misconceptions with

⁹⁴ The citation is from Kadish, *Historians, Economists*, p. 143.

⁹⁵ Maloney, *op. cit.* p. 441.

⁹⁶ In future the page references to "A Reply" will refer to Guillebaud's edition, with commentaries, of the *Principles*. See Marshall, A., *Principles of Economics*, C.W. Guillebaud (ed.), *Notes* London 1961.

⁹⁷ Maloney, *op. cit.* p. 442.

regard to the aims of the *Principles* and what Cambridge stands for.⁹⁸ Another cause is that Cunningham is a colleague and former pupil of Marshall's and therefore "could not fail to have entered into my point of view, to speak on full information, and to report me accurately".⁹⁹

Marshall starts off rather defensively. He states that he has been planning for a long time to write an outline work of English economic history and that he has therefore been assembling material for such a work for a considerable period. One of the objects of such an historical study would be to demonstrate that the current problems of English industry (i.e. the England of the 1890s, and the question of that country's relative decline, my note) did not have their origin in historical factors but were of "recent date".¹⁰⁰ Unfortunately these collections of material developed to the point where they had become so comprehensive that the results had to be compressed. Marshall admits that in the process "they lost, no doubt, some sharpness of outline and particularity of statement". Therefore the opening chapters are to be regarded as a mere introduction: "They have no claim to be history; but they were not written without due consideration of those simple and well known 'actual facts', which Dr Cunningham supposes me to have neglected".¹⁰¹

That the *Principles* should contain, as Cunningham alleges, an underlying assumption that "the same motives have been at work in all ages" and that it is accordingly possible to find general laws in the economic field is an interpretation which Marshall declares totally false. Actually he takes the opposite view, and this is reflected most clearly in the chapter on the development of economic science. If the modern economist has learnt anything, it is that when a scientific question passes through different stages of development, the laws which applied to an earlier stage cannot be applied to a later one without modifications. And this lesson has been learnt from biology. In point of fact, says Marshall, the ambition is to show "how similar causes acting on people under dissimilar conditions produce more or less

⁹⁸ Guillebaud, *Notes*, p. 749.

⁹⁹ *Op.cit.* p. 749.

¹⁰⁰ The original note for this assertion runs: "The chief of these problems I took to be 'whether it is really impossible that all should start in the world with a fair chance of leading a cultured life, free from the pains of poverty and the stagnating influence of excessive mechanical toil.'" *Op. cit.* p. 736.

¹⁰¹ *Op. cit.* p. 736.

divergent effects". An important addendum comes in a footnote. Cunningham has contended in an article that political economy is not a science dealing with "cause and effect" but a branch of pure science resembling logic and geometry. In these the question of causality is of no interest. But Marshall takes another view:

*"I hold on the contrary that economics is a science akin to biology, and not to logic; and that the conception of cause and effect is appropriate to it. There is therefore no common ground for the discussion of what the methods of economics ought to be, and I confine myself to observing that he (Cunningham, my note) is mistaken as to what my method is."*¹⁰²

In other words, Cunningham has attributed to economic science characteristics which it does not possess.

And so to the question of the historical relevance of Ricardo's theory of rent. Marshall believes himself to have been misinterpreted on this question as well. But he exploits Cunningham's criticism. It gives him a chance to develop his view of the relation between economic theory and history, and he gives the impression of regarding this as an urgent task.

He flatly rejects the view ascribed to him by Cunningham, to the effect that "when we possess Ricardo's theory of rent we know the inner working of the determination of rent in all ages". Instead, Marshall confesses that he has long agreed with a view common in historical literature, viz that "in primitive times" (the example is the Middle Ages), most men's thoughts and behaviour were guided by customs. These customs were to be regarded as virtually absolute and immutable, and, says Marshall: "I looked on the facts of custom as generally ultimate, and incapable of being analysed and explained".¹⁰³ In recent times, however, he has modified his opinion without having wholly abandoned it. For the opinion can be pushed too far. The fact must not be disregarded that in time customs can be changed and even vanish "under the varying circumstances of the time and place, and with the ceaseless development of social and political conditions, of trade and the acts of production". People who lived during "primitive times" under the influence of diverse historically-determined customs and traditions naturally thought in a different way from ourselves. But we must not exclude the possibility that beneath the surface of these societies behaviour could occur which tended to

¹⁰² Op. cit. p. 737.

¹⁰³ Op. cit. p. 738.

resemble the modern rational (and utility-orientated) ends-means behaviour. Such deviant behaviour could lead to changes in given customs. People "adopt different means for attaining their ends from those which we do, and are not nearly as conscious of what they are doing. But I believe that the desire to do what is best for oneself is seldom absent from human nature."¹⁰⁴

It is true that customs and rules sanctioned by tradition may constitute impediments to individual action. But there is always a degree of elbow-room available within them which certain individuals, consciously or unconsciously, can exploit. Marshall refers here to authorities on medieval English agriculture¹⁰⁵ and also to experts on Indian agriculture "in which the mediaeval tone lingers most". Even under these production conditions, unchangeable to the casual glance, "there may be running many keen little pursuits of private gain".¹⁰⁶ In other words (than Marshall's), a rational economic man, orientated towards self-interest, may find some room for manoeuvre, even in apparently static and tradition-bound societies. Such an opinion is "(...) quite consistent with the belief that in backward times and places there are many rights and dues which are, for a while at least, as rigidly fixed by custom as they could be by modern law or contract made out on stamped parchment".¹⁰⁷ Marshall draws a simile to illustrate this possibility of room for manoeuvre.

XV

The medieval manor can be compared to a modern firm, at any rate as regards property rights and the possible forms which the relation between landowner and cultivator may take. The modern firm has to adapt itself to the body of laws and contractual relationships in force. These can be likened to the customs and traditional rights and duties to be found "in backward times".

¹⁰⁴ Op. cit. p. 738.

¹⁰⁵ Marshall cites Vinogradoff's *Villainage in England*, and also an introduction which William Ashley wrote to a work by M. Coulanges entitled *Origin of Property in Land*.

¹⁰⁶ Guillebaud, op. cit. p. 739.

¹⁰⁷ Op. cit. p. 739.

For with respect to property rights to land one finds that "one member or members is the sleeping partner, and another member or group (...) is the working partner (...)". As long as custom forbids the landowner (who is thus a sleeping partner in this situation) to expel the people who till the land by increasing their rents or labour obligations, the payment which the "working partner" has to make is not to be regarded as rent of land. But circumstances may change, and thus also the way in which the relationship between the "sleeping partner" and the "working partner" is to be interpreted.

The "division of labour" established between the two groups of actors by common law and tradition is not stationary and untouchable but may come under the influence of "external disturbances". Marshall does not discuss in detail how and why these disturbances arise. The result, however, may be that the institutional arrangements are changed and the theory of rent thereby brought under the spotlight. For rent sets the upper limit to the individual landowner's scope for laying claim to a surplus from the tiller of the soil. The landowner may be very well aware of the boundary without this signifying that he has any knowledge of the stipulations of the theory of rent. "Most of the native landholders (...) make no formal analysis: but occasionally it happens to some of them to have considered whether the necessities of the tenants, with their existing habits, leave a surplus out of which they could (with sufficient pressure) meet increased claims, direct or indirect".¹⁰⁸

In other words, the indirect element in this situation consists in the fact that the claim to a surplus which certain landowners will make from their tenant farmers may be formulated in such a way as to constitute an unconscious application of Ricardo's theory of rent. In the further discussion of how this can be the case, Marshall makes another analogy with a natural science. Perhaps it may be thought a trifle prolix.¹⁰⁹

¹⁰⁸ Op. cit. p. 740.

¹⁰⁹ But as analogy or metaphor it is fully in line with what McCloskey regarded as an important and desirable methodological ingredient of the rhetoric of political economy. See McCloskey, D., *The Rhetoric of Economics*, Wisconsin 1985. The rhetoric of political economy aims to persuade and convince. Metaphors, analogies and similes therefore form part of the conversation between economists. Invisible hand, equilibrium, depression, elasticity and "human capital" are some examples of such linguistic embellishment.

The more primitive a society is, the more difficult it is to detect certain "subterranean forces" requisite for economic development. Here, says Marshall, there is a parallel with the problems which a modern geologist may encounter in his work. A geologist has the ability to study the flows and directions taken by the groundwater in a particular geographical district. Thanks to the existence of "modern analysis" or, if preferred, a "theory" of the phenomenon, geology can also state the physical and chemical conditions underlying the groundwater movements observed. Equipped with this knowledge, the scientist can provide answers to the more amateurish questions which a casual visitor to the district may be expected to pose: why does this lake exist at all; how can the water spring forth from nothing?

Marshall's recommendation is that the economic historian should investigate *in the same way* the habits and patterns of action which apply "on the spot". Exactly what Marshall has in mind in giving this advice the reader is not told. However, perhaps he means that such a scholar, equipped with the interpretations suggested by modern analysis, would be able to detect the very "feeble" attempts at "modern" behaviour to which the "subterranean waters" have given rise.¹¹⁰ Let us summarise Marshall's argument so far:

Customs, practices and other institutionally-conditioned restrictions and stipulations which guided men's economic behaviour in olden times or which guide that of "primitive" people today may appear wholly alien compared with those applying to modern society. But they do not exclude the possibility of discovering a "subterranean channel". Such a channel is a manifestation of "the desire to do what is best for oneself".¹¹¹ And Marshall goes on:

"Habit and prescriptions do indeed prevent many kinds of original individual action from being thought of at all, and they prohibit others: but there always remains a fringe of debatable ground in which a pushing character can assert itself. Those who know best the rural districts of England, or parts of the Continent or of India in which the mediaeval tone lingers most,

¹¹⁰ With respect to Cunningham's attack Marshall writes: "Now my only suggestion was that the economic historian should in like manner explore contemporary customs on the spot; and that, aided in like manner by modern analysis, he should use his knowledge to guide him in searching the slender records of medieval customs for subterranean channels of change: we can examine and cross-examine the living, but not the dead." Op. cit. p. 741.

¹¹¹ Op. cit. p. 738.

recognise the most fully how under a very still surface there may be running many keen little pursuits of private gain; and they tell quaint stories of sly devices for getting the best of one's neighbours even in the quietest corners of the world. The very quiet affords time and opportunity for elaborate manoeuvring in small matters."¹¹²

After this exposition comes the real attack on Cunningham. To believe, as the latter does, that Ricardo's theory of rent is applicable only to an agriculture which produces for a market is a grave misconception. For the theory contains a generally valid principle, and it embraces all types of incomes "derived from almost every variety of Differential Advantage for production (...)"¹¹³.

Of course the principle ought to be applied with a certain amount of caution. But one thing is clear. Ricardo himself had no intention whatever of confining the theory's applicability to "the market case". And Marshall continues: "(...) he did not limit his reasoning in any way to it. What he did (...) was to reckon the value of the produce *as that which it would have fetched if it had been all sent to the same market*".¹¹⁴ To an observant reader this interpretation may seem familiar. To discuss an economic theory's assumptions in "as if" terms is associated particularly with Milton Friedman's instrumentalism and defence of the use of unrealistic assumptions.¹¹⁵ If we are to believe Marshall, such a methodological approach was already exhibited in Ricardo! Back to Marshall's discussion.

Even if a relatively small portion of aggregate production goes to a market and therefore no market price in the true sense emerges, "the general principles of the Ricardian analysis (...) [can] often be applied without using the term 'market price'."¹¹⁶ The theory simply has a greater field of application than Cunningham is willing to ascribe to it. But the theory must

¹¹² Op. cit. p. 739.

¹¹³ Op. cit. p. 741f.

¹¹⁴ The italics are Marshall's and the citation is to be found on p. 742 of Guillebaud, *Notes*.

¹¹⁵ See Friedman, M., *The Methodology of Positive Economics*, in *Essays in Positive Economics*, Chicago 1953 and Blaug, *The Methodology of Economics*, p. 103ff.

¹¹⁶ Guillebaud op. cit. p. 742.

always be related to surrounding factors and conditions, which may make it necessary for the theory's pronouncements to be modified. Nevertheless, to modify is not the same thing as to reject. And Marshall exemplifies.

When Cunningham applied the theory of rent to Tudor times in England, the money rents, according to the theory, ought to have shown a falling tendency because the cultivated area was diminishing. In reality the money rents rose. Must the theory not be false then? No, says Marshall, but other circumstances as well as those included in the theory must be taken into account - circumstances which Ricardo discussed in other connections. In the first place, the inflow of silver and other precious metals may have contributed to the rise in the money rents. Such an inflow may have offset the trend towards falling rents. Another reason why the expected trend of rents failed to occur may have been that the reduction of the cultivated area was a consequence of "several causes; and that if due to some of these causes, it would result in a rise; if due to others, in a fall of real rents (...)".¹¹⁷

Marshall finds a third reason why the theory cannot be verified directly by actual developments in the fact that during this period a changeover occurred from corn production to sheep-rearing so as to meet the growing demand for wool. Growing demand ought of itself to bring about an increase in real rents. It did compel a more intensive cultivation of the land still in use for corn production. This reduced the return to the marginal "doses" of labour and capital which were necessary for production, which in turn raised the value of each unit of corn "(...) and this in turn would enable a smaller quantity of corn to suffice to remunerate the farmer for every other dose of labour and capital; and therefore a larger corn-surplus, or corn-rent, would remain for the landlord. I believe this reasoning to be a well-known example of that set of doctrines which economists have in their minds when they speak of Ricardo's characteristic teachings as to rent."¹¹⁸

It is worth pointing out that what Marshall is introducing (in respect of the third reason at least) is scope for both technical change and changes in demand. In other words the original theory has been embellished with ancillary hypotheses. Perhaps Marshall's "rescue" of the theory constitutes an example of how he strives to retain continuity with the past and emphasise

¹¹⁷ Cp. cit. p. 743.

¹¹⁸ Cp. cit. p. 743f.

that his own "economics" does not constitute a "revolution" or breach with the classical tradition.¹¹⁹

At the end of his reply Marshall comes on to what he calls Cunningham's "minor points". He argues that in addition to their both holding conflicting opinions about the way the Greek and Roman economies functioned, what Cunningham's criticism amounts to is the calling into question of "opinions which I do not hold, and which I believe I have not expressed; while in several cases I think I have definitely expressed opposite opinions".¹²⁰ In Marshall's eyes, therefore, Cunningham's attack is one of a series of several aiming at representing Marshall to be the historical school's foremost traducer. Marshall declines to be regarded as hostile to economic history. Even though the most important task "for our age" is to study conditions in the existing economy, he in no way wishes to dissociate himself from the scholars who "have given their lives to the study of economic history". But the latter must not forget - and this is surely an important remark - "the good work that has *already been done in the scientific analysis (...)*"¹²¹ (my italics)

By his reply, Marshall has transgressed his principle of never responding to criticism. At the end of his "reply", however, he offers thanks to those who have expressed opinions about the *Principles* in various ways, and writes: "(...) for the good will, fairness and generosity of interpretation (...)"; and this applies to "those who on the whole condemned the book, as well as those who on the whole approved it".¹²² Cunningham apparently belongs in neither of these camps. On the other hand Ashley's name figures among the critics whom Marshall appreciates.

Cunningham was afforded no opportunity of replying, at any rate not in the *Economic Journal*. The discussion was regarded as closed as far as the journal was concerned. A brief comment by Cunningham in the *Pall Mall Gazette* brought no fresh arguments into the "methodological dispute".

In the New Year of 1893, Mrs Mary Paley Marshall received a letter from one of Marshall's former teachers, Benjamin Jewett. This seems to have been a reply to an earlier letter from Mary Paley. In it, Jewett expresses his

¹¹⁹ See Argyrous, *The Growth of Knowledge*.

¹²⁰ Guillebaud, *Notes*, p. 748.

¹²¹ *Op. cit.* p. 748.

¹²² *Op. cit.* p. 749.

pleasure that "notwithstanding such insects and wasps as Dr Cunningham, Alfred looks back on his last year with such satisfaction".¹²³

XVI

We shall notice some further contributions of programmatic character on Marshall's part. The first of these is a lecture which Marshall delivered to the newly-formed "Cambridge Economic Club" in 1896. The lecture is to be found, in adapted form, in the *Quarterly Journal of Economics* under the title "The old generation of economists and the new".¹²⁴ There can be no doubt that the article formed an important feature of Marshall's campaign for an Economic Tripos. However, the interesting question in this context is whether, in the guidelines he lays down for the "economics" of the future, he also adopts positions touching on the relationship to economic history. The second article does not deal with economic history at all. But it is still of interest. Here Marshall discusses the value of, but also the dangers associated with, analogies between the natural sciences and economic science with respect to principles and methods. The latter contribution appeared in the *Economic Journal* one year after the journal had published the former article. Some kind of connection cannot be excluded. I believe that as far as Marshall is concerned it is a matter of clarifying or even modifying certain methodological guidelines which had been drawn up in "The old generation".

Marshall says in the introduction to the article that the early nineteenth century economists carried out important preparatory work for the task with which the economists of the new century are now confronted. Unfortunately he has to say that when he himself began to be interested in economic science in the late 1860s its academic standing was not high. Despite the fact that its representatives had developed bold universal principles for differing social conditions, there was strong criticism both of the scientific approach and of the conclusions which followed from it. The criticism was partly of an intra-disciplinary character. The German historical school's questionings were an example of this. But this intra-disciplinary criticism "had less influence than the rapid changes which were taking place throughout the whole Western World in the economic structure of society, and in the tone

¹²³ The information is taken from Maloney, "Marshall, Cunningham ...", p. 443.

¹²⁴ *Quarterly Journal of Economics*, Jan 1897. The article is reprinted in Pigou, *Memorials*. The page references which follow are to Pigou's work.

and temper of political thought (...)"¹²⁵ In other words, what Marshall is wanting to stress here is that social development has meant that the general principles of "the old economists" no longer have the same bearing, and that there is need for a new theory. Does this position mean that Marshall regards economic theory as historically relative? Are the historical economists (including Cunningham) right on this point? Marshall offers no enlightenment on the question. He turns instead to a critical examination of Richard Jones, perhaps the first representative of the English historical school. This early "empiricist", as we have already observed, had a prominent place in Ashley's presentation of the English historical school.¹²⁶

Jones had strongly criticised the Ricardian deductionism of the early 1830s.¹²⁷ Part of the thrust of this criticism was that what are presented as general principles not infrequently turn out to be special cases when confronted with observations of reality. Marshall considers this objection to be somewhat irrelevant. There is no general principle that does not have exceptions. And with that comment we must be content.

Another and in my view more important point in Jones' criticism can be summed up as follows. If a scholar takes a stand in favour of one or the other general principle, this may limit his willingness, or his opportunities, to seek new facts. This warning too - a prudent one when all is said and done - is regarded by Marshall as devoid of relevance. He considers it to be based on a misunderstanding. "Richard Jones had not fully grasped the modern distinction between generality of doctrines or dogmas, and generality of

¹²⁵ Op. cit. p. 295.

¹²⁶ See p. 23.

¹²⁷ Richard Jones' most important work is *An Essay on the Distribution of Wealth and the Sources of Taxation*, of 1833. In it Jones argues that Ricardo's theories of rent, population and profit do not hold water when subjected to testing by the inductive method. According to Scott Gordon, Jones was a forerunner of the "historical" and "institutionalist" schools of political economy but attracted no followers during his lifetime. See Scott Gordon, *The History and Philosophy*, p. 202. See also Millar, William L., *Richard Jones: A Case Study in Methodology, History of Political Economy*, 1971. Millar holds that Jones was not a narrow-minded inductionist but argued in fact that the deductive and inductive methods complemented each another.

analytical conceptions and ideas (...)"¹²⁸ Marshall offers no further guidance as to how the distinction is to be made between doctrines and analytical conceptions. But a discussion follows which may possibly clarify what its consequences are.

No practical problem can be immediately understood or solved by being subordinated to some universal doctrine. The reason is that reality is many-faceted and our knowledge of it limited. In seeking solutions we have to resort to guesswork and common sense rather than reasoning "on strictly logical lines".¹²⁹ However, such an approach does not mean that we have to reject general principles and statements. Rather the reverse: "The growing perfection machinery in economics (...) widens and deepens the issues with which the economist has to deal (...)." But these general principles must not predominate. They must "keep in the background like a modern general: but they control larger forces than before". For general principles also influence the mode of thought, the ideas which come up. They change "the course of the world ever more and more (...)"¹³⁰

Once again, it seems to me, Marshall lands in a sort of contradiction. General principles have their shortcomings but are not therefore to be forgotten in practical policy. At the same time, general principles obviously exercise an influence on the actual development of society. A crucial question at this point is *who*, in that case, thinks of these general principles, and *how*? Can this knowledge be attained entirely independently of the society in which one lives? But let us return to Marshall's argument.

It is a by no means uncommon opinion, says Marshall, that the more knowledge (the empirical sort, one must suppose) we acquire of economic and social life, the more diversified and impenetrable it appears. The scientific conclusion from such a view is that increasing (empirical) knowledge renders attempts at generalisation more difficult. Marshall cannot agree with this conclusion. He makes a comparison with developments in physics. For the development of knowledge in that science has "gone over the same ground a little ahead of social science". The Comtean element in this approach need scarcely be pointed out. In physics, increased knowledge of the variety and complexity of nature has frequently enabled the underlying explanatory principles to be reduced! And there is reason to bear this fact in

¹²⁸ Pigou, *op. cit.* p. 296.

¹²⁹ *Op. cit.* p. 297.

¹³⁰ *Op. cit.* p. 297.

mind in the study of economics as well. It is therefore a good thing that there has begun to appear "a growing readiness among economists, as among students of physical science, to recognize that the infinite variety and complexity of nature's forms is compatible with a marvellous latent simplicity of her governing principles".¹³¹

It is perfectly clear that Marshall does not see here any crucial methodological difference between sciences of nature and sciences of society. Nor does he do so with respect to "governing principles" in physics and biology. Nevertheless he will refer to biology and evolution again: more about this problem later. For the moment it is sufficient to observe that Marshall does not hesitate to draw direct parallels between physics and economics - and this without really discussing possible differences and similarities, i.e. without problematising the similarity. His approach to the scientific study of economics in society can be summarised as follows: In economic life there are basic principles and forces to be taken into account, and equally there can be special circumstances in every individual case. It is important to take note of these special circumstances. But the prerequisite of being capable of noticing them at all is that one knows the general principles. The study process itself "involves a passage upwards from particulars to general propositions and ideas; and a passage downwards from them to other particulars".¹³²

Marshall's declaration of how the study of economics is to be conducted does not stand out at once with crystal clarity. Which road is the most important? The one by which one attempts to discover general principles from the observable? Or is the journey to start off from the universal (insofar as this category has been identified), by whose light the individual and possibly unique observations may be analysed? As we have remarked, Marshall does not discuss the matter. For my own part I feel that his somewhat vague approach anticipates the motto which he chose for his work of economic history *Industry and Trade*, published in 1919. The motto runs: "The many in the one, the one in the many."¹³³

¹³¹ Op. cit. p. 298.

¹³² Op. cit. p. 298.

¹³³ Marshall attempted to explain the meaning of the motto in a letter to W.A.S. Hewins, the first rector of the London School of Economics. He wrote: "In my view the *Many* is the ground of study; the *One* is the Holy Grail to be sought by the pious and laborious pilgrim; and the *One* where so found is to help as a guide through life over the broken ground of the *Many*."

It is evident that Marshall is endeavouring to find a connecting link between the general and the specific. Can it consist of a combination of formal economic analysis and economic history? For such a possibility is probably capable of being united with the pronouncements he makes. The answer, however, is in the negative: "(...) in economics we deal with the whole of man's nature, though we lay chief stress on certain special aspects of it". Therefore economic history is not enough. "We need more than economic history (...) we want a history of man himself (...)." ¹³⁴ And again physics sets the pattern, for that science strives to find a "hidden utility in the forces that govern molecular movement" in the same way as "social science is seeking her utility in the forces of human character". To seek for the general in human behaviour is not only important in studying history. It will also be possible to use the results for making predictions. They will be able to offer "guidance for the future". One cannot escape the impression that Marshall appreciates most the help contributed by political history to the knowledge process "out of that tangled complex which constitutes the history of man". ¹³⁵ For political history has shown how human nature has developed. Therefore it can also make important contributions to the "thread" of history formed by economic history. Economic history, as I interpret Marshall's not entirely limpid conclusions, is subordinate to political history, at any rate as far as concerns the uncovering of the unifying principles which guide human behaviour so as to be in a position to write "a history of man himself (...)". But above all, physics ought to serve as the scientific model, as indeed emerged from the earlier simile of bridges in Venice.

XVII

The conclusion is difficult to reconcile with the views which Marshall was to set forth a year or so later in an article in the *Economic Journal*. It was now a matter of the weaknesses and limitations which emerge when the principles and methods of physics are transferred to economics. Nor is Marshall certain

See Coats, A.W., Alfred Marshall and the Early Development of the London School of Economics: Some Unpublished Letters, *Economica* no.37, Nov 1967, p. 411. See also Chasse in *History of Political Economy*, vol. 16, 1984, p. 398.

¹³⁴ Pigou, op. cit. p. 299.

¹³⁵ Op. cit. p. 300.

any longer that such transfers can be made directly. What physics can supply economic science with is analogies. But analogies with physics obviously have their limitations. His call is to work instead with analogies between economics and biology.¹³⁶

Concepts such as "static" and "dynamic" are utilised in economic science. It needs to be clearly borne in mind that they are borrowed from physics. In that science there is no clear boundary between the two methods or approaches, at any rate not in a mathematical sense. On the other hand it can be said, speaking purely generally, that a static solution is considerably simpler (still in a mathematical sense) than a dynamic one, and that it:

*"(...) may afford useful preparation and training for the more difficult dynamic solution; and it may be the first step towards a provisional and partial solution in problems so complex that a complete dynamic solution is beyond our attainment".*¹³⁷

¹³⁶ These viewpoints are set forth in "Mechanical and Biological Analogies in Economics" and reproduced in Pigou's *Memorials* p. 312-318. The item concerned consists of an extract from a major article in the *Economic Journal* of March 1898, under the title "Distribution and Exchange". The article opens with a criticism emanating from Irving, Fisher and others. The original text is divided into four sections. It is the first two of these which are reproduced in Pigou. The third section contains a statement which is interesting for our purposes. It concerns the criticism raised against the two opening chapters of the *Principles*. Marshall writes: "(...) complaints have been made that my first Book keeps the reader too long from entering the main work before him. But it is needed from my point of view. The chapters on the Growth of Free Industry and Economic Science are no doubt long, in spite of their being wholly inadequate if regarded as sketches of economic history. But they have no claim to be so regarded. Their aim is different. It is to emphasise, as the keynote of the treatise, the notion that economic problems are not mechanical, but concerned with organic life and growth (...) they offer a view continuous with that of classical tradition, but differing in the stress laid on this element of organic life-growth. They claim to show that the past can afford just guidance for the present and the future only when full account is taken of the changes in man himself, and of his modes of life and thought and work: and to sketch some leading features of those changes which are of most importance for the economist." Cited from Guillebaud, *Notes*, p. 62 f.

¹³⁷ Pigou, *Memorials*, p. 312.

Many economic thinkers have transferred concepts from physics to economics. One who believed very much in this approach was John Stuart Mill. And Marshall has a certain degree of sympathy for such a method as long as it is the equilibrium state that is involved. When Mill argues for the application of "the principle of the Compositions of Forces", it is because the principle offers simple mathematical solutions: "... we have but to add by simple arithmetic the forces acting at a point in any direction; and make sure that the sum is zero".¹³⁸ For example, when we speak of "balance" or "equilibrium" between supply and demand it is just the analogy to the principle that we are applying: "(...) we think of demand and supply as crude forces pressing against one another, and tending towards a mechanical equilibrium (...)".¹³⁹

When we come to dynamic problems, however, physics cannot offer any solution, and the reason is mainly of a mathematical nature. Simple arithmetic is not enough for this type of problem:

*"(...) they need the strength and delicacy of vast and subtle mechanical engines working out large volumes full of mathematical formulae and figures. But these engines cannot be applied to economics (...) dynamical solutions, in the physical sense, of economic problems are unattainable".*¹⁴⁰

A distinguishing feature of "the earlier stages of economic reasoning" was the very fact that those like Mill who exercised such reasoning relied on approaches resembling mechanics and the static analysis in physics. The criticism does not mean that the analogies which were drawn lack relevance. The very frequent *ceteris paribus* restriction, for example, has made it possible to isolate a problem and ignore temporarily all the "disturbing" tendencies which can occur. The more a problem is isolated, the more exact the analysis can be. But isolation also has a cost: "(...) the less closely does it correspond to real life".¹⁴¹

And this real life has indeed changed since Mill's time. The latter's conception, or "model", as we should call it, of a stationary economy was not

¹³⁸ Op. cit. p. 313.

¹³⁹ Op. cit. p. 318.

¹⁴⁰ Op. cit. p. 313.

¹⁴¹ Op. cit. p. 314.

wholly unrealistic in Mill's day, says Marshall. But the conception was also based on its being possible to hold many disturbing tendencies in check by the *ceteris paribus* assumption. Mill was influenced in his conception of reality by the "black shadow" which Ricardo and Malthus had helped to throw over the land: growing population, increased scarcity of raw materials, increasing rents at the expense of profits and wages. This "black shadow" offered no hope that things would improve. Even though Mill's views on the distribution question were somewhat different, Marshall believed that Mill had been unable to liberate himself from this gloomy message. But, he goes on to say, the situation has changed:

*"In our own age pressure of numbers on the means of subsistence does not cause a fundamental readjustment of the notion of equilibrium even for long periods; we can allow for the growth of population by estimating demand and supply alike, not with regard to a total flow of so many units of product per annum, but with regard to a flow of so many units per head per annum."*¹⁴²

Certainly problems will arise even in the future, but they will not resemble those which are associated with stagnating or stationary economies. That picture of the economy was based on an analogy with the statics of physics, equilibrium being a key feature. Mechanical analogies of that sort have probably had their day. The pendulum no longer swings back and forth along the same path. Therefore a new theory is also needed as far as economic life is concerned, for "future events cannot happen under exactly the same conditions as they did". Economic progress or economic evolution (Marshall put both "progress" and "evolution" in quotation marks in his text), as applicable in both the industrial and the social sphere, are matters of "organic growth, chastened and confined and occasionally reversed by the decay of innumerable factors, each of which influenced and is influenced by those around it; and every such mutual influence varies with the stages which the respective factors have already reached in their growth".¹⁴³

This is something to which modern economic analysis must pay attention. Therefore biological analogies are to be preferred to mechanical. Apart from the standard reservation "other things being equal", Marshall concludes his appeal for biological analogies in terms that are almost poetic:

¹⁴² Op. cit. p. 316.

¹⁴³ Op. cit. p. 317.

"(...) with every spring the leaves of the tree grow, attain full strength, and after passing the zenith decay; while the tree itself is rising year by year to its zenith, after which it also will decay. And here we find a biological analogy to oscillations in the values of commodities and services about centres which are progressing, or perhaps themselves oscillating in longer periods (...) The Mecca of the economist is economic biology rather than economic dynamics."¹⁴⁴

In other words, even though Marshall does not discuss economic history directly in this article, there are numerous reasons for remarking upon it as far as we are concerned. First there is the methodological message. Here there is a clear exhortation to the next generation of economists to abandon static analysis and advance further. The analogies with static mechanics have been necessary but now the practitioners of economic science must switch their focus to a dynamic perspective on the economy.¹⁴⁵ Secondly, this new theory makes it possible to understand, not a Ricardian stagnating economy and not the stationary economy predicted by Mill, but a *growing* economy. In brief, a theory of growth is needed.

Thirdly, Marshall argues that in the future development of theory, analogies to biology's doctrine of evolution will be the most promising.

Not that I believe there is the least connection, but in the same year that Marshall voiced these opinions, Thorstein Veblen, the American institutionalist and "slayer of neoclassicism", was writing an article under the title "Why is Economics not an Evolutionary Science?"¹⁴⁶ Nor is it the last time that Marshall goes into the similarities between biological and economic theories. In the preface to the fifth edition of the *Principles* in

¹⁴⁴ Op. cit. p. 318.

¹⁴⁵ It needs hardly be pointed out that the appeal would ring out unheard for more than fifty years. Not until then did the beginnings of a neoclassical growth theory appear. The evolutionary perspective had to wait some decades longer still for attempts at an evolutionary perspective on the economy to be made. See e.g. Alchian, A., Uncertainty, Evolution and Economic Theory, *Journal of Political Economy*, vol. 58, no 3, 1950. See also a considerably later attempt, Nelson, R & S. Winter, *An Evolutionary Theory of Economic Change*, Cambridge 1982.

¹⁴⁶ *Quarterly Journal of Economics*, vol. 12, 1898.

1905, he returns to the question, reproducing almost word for word the argumentation from "Mechanical and Biological Analogies".¹⁴⁷

XVIII

By the time the fifth edition of the *Principles* came out, Marshall's fight for a separate Economic Tripos had already produced results.¹⁴⁸ An Economic Tripos was established at Cambridge in 1903, thus partly severing a long tradition of close contact between economics, politics, moral science and history.¹⁴⁹ It may be added that the success in establishing the special Economic Tripos was not followed by any great rush of students.¹⁵⁰

It now became no longer possible to study "economics" as a subject within the ambit of moral science and history. However, the History Tripos became a route allowing of specialised studies of economic history. Economic history became simply a specialisation within the discipline of history, in the same way as political or constitutional history.¹⁵¹ It may be observed that Cunningham had expressed a strong desire for "economics" to be retained as

¹⁴⁷ See Guillebaud, *Notes* p. 45ff.

¹⁴⁸ See Groenwegen, Alfred Marshall and the Establishment, p. 646ff. and Kadish, *Historians, Economists*, chap. 6.

¹⁴⁹ But not completely. The fact that Marshall's pupil and successor, Arthur Pigou, became a pioneer in the field of welfare theory is expressive of the fact that issues of morals and values had not been removed from the agenda. See note 12. Joan Robinson says in one of her books that another great Cambridge economist "reintroduced the moral problem which *laissez faire* had abolished. It is true that we in Cambridge had never been taught that political economy should be value-free (*wertfrei*), or that the positive and the normative can be sharply separated. We knew that study took place for the purpose of producing profit as well as clarity." The Cambridge economist alluded to was obviously John Maynard Keynes. See Robinson, J., *Ekonomisk filosofi*, Stockholm 1971, p. 98.

¹⁵⁰ In Groenwegen op. cit. there are statistics of the intake, p. 649.

¹⁵¹ See Kadish op. cit. p. 214.

a study option in the History Tripos in the form of a sub-branch of economic history. This did not happen.¹⁵²

Five years after the Economic Tripos had been established, Marshall retired and was succeeded by his former pupil Arthur Cecil Pigou. However, retirement did not mean that his scholarly work was at an end. He published *Industry and Trade* in 1919 - "a great effort of will and determination on the part of one who had long passed the age when men rest from their labours".¹⁵³ The book considers trends in the English economy as well as conceivable changes in the world economy. Long passages of the work are purely descriptive, reflecting Marshall's lifelong concern for the collecting of "facts".

Is *Industry and Trade* a work of economic history? Does it constitute an attempt to unite "an engine of analysis" with the multifaceted economic and social realities? To the former question Marshall himself returns a clear negative: "The volume has no claim whatever to be a contribution to economic history: but an endeavour has been made to turn a few hints derived from the past to account in explaining the present (...)." ¹⁵⁴ This modesty may of course have something to do with Marshall's not wanting to provoke an action replay of the *Methodenstreit* with Cunningham.¹⁵⁵

The second question is not so easy to answer.¹⁵⁶ Economists educated in Marshall's spirit did not find *Industry and Trade* particularly interesting. It lacked the analytical elements which had made the *Principles* so successful. In many respects it was a different sort of book. It summed up, perhaps in somewhat unstructured fashion, Marshall's historical knowledge and his

¹⁵² "Cunningham did not aim at excluding economics from the History Tripos but rather to subjugate it to economic history, but Cunningham was not all powerful. His fellow-historians, including his student Ellen McArthur, found his view outdated (...)" Op. cit. p. 215.

¹⁵³ Keynes, *Essays*, p. 260.

¹⁵⁴ Marshall, A., *Industry and Trade*, London 1919, p. vi.

¹⁵⁵ See Hutchison, *A Review of*, p. 70.

¹⁵⁶ Whitaker, however, has the idea that with *Industry and Trade*, Marshall was indeed attempting such a synthesis and that the book actually summarises what would have become a *Principles Part 2*! See Whitaker, John, (ed.) *Centenary Essays on Alfred Marshall*, Cambridge 1990.

perceptions of industrialisation and developmental tendencies during the late nineteenth century, and of more topical tendencies with respect to market forms and the growth of prosperity. Perhaps Keynes' verdict on the book is the right one:

*"The chief value of the book lies, however, in something less definitive and more diffused than its central themes. It represents the fruits of Marshall's learning and ripe wisdom on a host of different matters. The book is a mine rather than a railway (...). It contains the suggestions, the starting points for many investigations. There is no better book for suggesting lines of original inquiry to a reader so disposed."*¹⁵⁷

Nevertheless I think that the preface at least, and above all the book's motto, expresses a wish for synthesis. The declared aim of the work is to study "the technical evolution of industry, and its influences on the conditions of man's life and work". And the motto of the study is "The many in the one, and the one in the many".¹⁵⁸ We have come across this before. What is its meaning? My own interpretation, perhaps too critical, is as follows.

A fundamental requisite for conducting a study of economic reality, whether that reality be historical or topical, is that the study should be rooted in some kind of "preliminary theoretical" view of how general tendencies interact. Marshall gives no indications as to whether the scholar in question himself chooses such a "theory" or not. To assert that Marshall is expressing the Popperian view that facts are "theory-impregnated" would be an over-interpretation. The question of *how* in the course of the scholarly process one arrives at that which constitutes the general tendencies also remains unanswered. But it is important that the empirical multiplicity ("the many") should be subjugated to some uniform principle or principles ("the one"). A further complication arises at this point. Some basic principles (however we may have reached them - my comment) may well be called into question on the ground that "facts" (the many) do not support them. How is this problem to be treated? When does the influence of "the many" assume control over "the one"? Marshall's recommendations offer little guidance. In such troublesome cases there is a need for "an exhaustive study (...) (that) ranges

¹⁵⁷ Keynes, *Essays*, p. 262.

¹⁵⁸ Marshall, Alfred, *Industry and Trade. A study of industrial technique and business organization; and of their influences on the conditions of various classes and nations*. London 1919, p. v.

over many fields of work".¹⁵⁹ In any such study, however, one overall principle must not be forgotten - a principle which was also the motto of the *Principles* in 1890, viz "*Natura non facit saltum* (...) evolution is gradual and continuous on each of its numberless routes". It is difficult not to feel once again that Marshall's methodological recommendations are not particularly elucidatory.

XIX

Our re-reading begins to draw to its end. The object has been to study Marshall's view of the relation between economic analysis or theory and economic history, i e "facts". We have examined some of Marshall's own contributions on the question as well as attitudes expressed by representatives of the not specially homogeneous English historical school. We have been concerned with what the current doctrinal history periodisation categorises as the period of upheaval signalling the transition from a classical to a neoclassical political economy. That the criticisms raised by the English historical economists were weighty and not without significance is not so frequently apparent when this periodisation is applied. The English equivalent of the *Methodenstreit* between Schmoller and Menger has been discussed. However, the arguments presented during its course turned out to be not entirely fresh. The clash between exponents of the Ricardian deductive political economy and an historically-orientated economic science was already in evidence by the middle of the nineteenth century, i e long before Marshall chose his scholarly path and launched his campaign for a separate subject of economics in the academic education offered at Cambridge.

What is to be our opinion of Schumpeter's verdict cited in the introduction?: "Marshall was in fact an economic historian of the first rank (...)"¹⁶⁰ To begin with, Schumpeter's assertion is a trifle anachronistic. It would not be until 1929 that an institutionalised academic discipline under the name of economic history made its appearance in England. Not until 1926 was an association - the Economic History Society, with Ashley as president - created for teachers and scholars with an interest in the economic history field.¹⁶¹ Another view on the matter has to do with the level of my ambition

¹⁵⁹ Op. cit, p. v.

¹⁶⁰ See p. 6 of this work.

¹⁶¹ See note 72.

as far as the present survey is concerned. It is impossible, of course, with the limited "re-reading" which has been done to give an unequivocal answer to the question of Marshall's attitude to economic history. Nevertheless there is one conclusion that can be drawn. Marshall was never specially inclined to take up a conclusive position. In several of the texts of programmatic character which have been reviewed here it has been difficult to establish what was really Marshall's own opinion and what were his attempts to over-bridge antagonistic stand-points. Marshall's great caution is vouched for¹⁶² but still a little hard to understand bearing in mind the energy he put into the campaign for a separate subject of economics.

Now I am not the first to have had problems in understanding how Marshall really regarded the relation between theory and history. Others have also wondered whether his attitude to the value of history for economic analysis underwent change over the years. For example Hutchison writes:

*(...) it is impossible to follow precisely the path by which he moved and the reasons moving him. It is impossible to say how far there was an important shift of methodological views, how far an acceptance of academic trade-union demarcations between analysis and history, then being strongly asserted (...) and how far, finally, the historical work simply got crowded out from the scarce time of his old age, when what were to have been the later volumes of the Principles were being pushed to completion at the same time as constant minor adjustments were being made to the analysis of the first volume."*¹⁶³

The re-reading has also resulted in discoveries of certain "modern" elements in Marshall's methodological discussions. Marshall was using the "as if"

¹⁶² See Corry in the *International Encyclopaedia* and Whitaker in *Palgrave*. According to Whitaker, Marshall was inclined to play for time and not specially happy to debate or stand out as a public figure - though this was something which he had to accept because of the campaign. Corry ascribes this wariness to Marshall's father, whose "(...) paternal control and repression had a marked and lasting effect on Marshall". Keynes offers the following verdict: "(...) Marshall was too much afraid of being wrong, too easily upset by controversy even on matters of minor importance." See *Essay* p. 213. The fact that it took such a long time for the *Principles* to come out, Keynes thinks, has something to do with his caution.

¹⁶³ Hutchison, op. cit. p. 70.

assumption - today associated primarily with Milton Friedman - as early as 1892. Nor can any reader have failed to notice Marshall's predilection for using metaphors and analogies in order to clarify his reasoning and convince his readers. Here is an early form of McCloskianism, in other words. Or was it a case of McCloskey's having reinvented the wheel?

I have suggested earlier that Marshall also pursued arguments reminiscent of those of the neo-institutionalist school. To examine the economic history elements of the *Principles*, or the whole of *Industry and Trade* for that matter, from this neo-institutionalist perspective would form an interesting research task. One need only recall how Marshall's conception of "subterranean channels" in the primitive society circumscribed by various customs and institutional restrictions led slowly to an emancipation of rational economic man.¹⁶⁴ My own guess is that the result of such a comparison would be that nothing is new under the sun. One problem at this point, however, may be to establish whether there are one or several neo-institutionalist perspectives.

It is also important to remind ourselves that the battle between the historical economists (the leading ones being Richard Jones, Cliffe Leslie and William Ashley) and the deductionists (among whose number John Neville Keynes and later on Marshall must be counted) was not about the establishment of economic history as a separate discipline. The debates and disputes concerned the future of political economy. The controversy cannot be reduced to a question of choosing between deduction and induction. As we have already observed, Marshall had a very ecumenical - perhaps we should say generous - attitude to that problem. We likewise found the English historical school's great forerunner Richard Jones sharing this attitude.

It is also important to point out that the tradition handed down from Ricardo and "classical political economy" by no means enjoyed monopoly status among English economic "thinkers" during the latter half of the nineteenth century, as is often asserted in traditional expositions of the history of economic thought. Then it is another question whether the disputes between the two camps had primarily to do with differences of political opinion or whether they arose out of diverse methodological demands for an economic theory. Koot, not entirely unexpectedly bearing in mind the title of his work, contends that it was primarily a matter of political dividing lines, between

¹⁶⁴ See p. 43 of this work.

laissez faire and *neomercantilism* in other words.¹⁶⁵ Is it possible in such situations to make any clear distinction between ideology and methodology? I shall not even attempt to answer that question here.

Marshall had no objections at all to studies of the historical origins of diverse customs, rules and institutional arrangements and their impact on the way economic reality was shaped during different historical periods. It was preferable that the result should facilitate some sort of generalisation, however. Historical knowledge is not sufficient, and the reason is simple: economic science has a mission, viz to present solutions to current economic and social problems. In face of this mission, historical knowledge is not enough. A theory is required. The examination of what we know must be made in the light of an "engine of analysis". But the development of such an engine must not become an end in itself. A theory for theory's sake would be nothing in Marshall's eyes.

Can the methodological dispute between Marshall and Cunningham offer any indication of how Marshall viewed the possibilities of economic analysis, and thereby economic theory, being fructified by empirical evidence and historical knowledge? Even though Marshall, in his reply to Cunningham's attack, strove to bridge the differences between them, his methodological standpoint is clear. There are universal principles of economic life and it is possible to attain to a knowledge of these. Economic history can contribute to the process of acquiring such knowledge. Perhaps the universal principles are sometimes suppressed in older or more primitive forms of society, but they nevertheless form minor "subterranean channels" which sooner or later come up to the surface. To "relativise" economic behaviour historically was something Marshall could not accept. To start out from these general principles increases our understanding not only of today's society but also of economic conditions in the past.

¹⁶⁵ The complete title of Koot's book is *English Historical Economics, 1870-1926. The Rise of Economic History and Neomercantilism*. Moreover, Koot argues too that John Maynard Keynes brought about the completion of the historians' neomercantilism in the 1920s and 1930s through his criticism of *laissez faire*. Of course it is a very debatable conclusion. Joan Robinson has a different opinion, to the effect that Keynes introduced new (or perhaps new-old) elements into economic theory: "(Keynes) reintroduced time into economic theory. He awakened the Sleeping Beauty from the long oblivion to which 'equilibrium' and 'perfect knowledge' had condemned her and forthwith led her out into the world." See Robinson, *Ekonomisk filosofi*, p. 100.

How to acquire a knowledge of these universal principles then becomes a crucial question. In Marshall's view the acquisition of new knowledge is a process which must be gradual. We must begin in all humility by making analogies with the very simplest set of problems in natural science - the static mechanics of physics. In this way we can get on the track of certain principles. But we must not be satisfied with that. For the economics of the real world cannot be understood if too many of its conditions are banished to the realm where "all else is unchanged", any more than if the perspective is restricted to those instances where equilibrium and balance exist. The next step in the development of theory, therefore, must be to apply a dynamic and evolutionary perspective to the economy. This brings us to the really fruitful analogy, viz that between economics and biology. This theory, undeveloped as yet, will enable us to get on the track of economic growth and the mysteries of economic development. Such a theory is of pressing importance for the simple reason that the economy of the modern society is characterised by growth and expansion. The industrial societies have left the stagnating or stationary economy behind them. What Marshall is obviously hoping for is that the next stage will be the development of a theory of economic growth and progress. Such a theory must not only leave static mechanics behind but must also devise some mode of expression or some language other than that offered by mathematics.¹⁶⁶

¹⁶⁶ See Coase, Marshall on Method. Jacob Viner discussed Marshall's attitude to mathematics as an aid to political economy in a lecture to the American Economic Association in December 1940, i.e. on the same occasion when Schumpeter gave his views on the significance of the *Principles* for historical theory. Viner says, *inter alia*, that Marshall "had grave mistrust of the consequences of unrestrained employment of formal mathematics in economic analysis", and that the prototype of economic science was to be found in biology rather than in mechanics. Viner further points out that Marshall's interest in biological analyses must be viewed in the context of the ideas and currents which were in circulation at Cambridge at this time. "(...) the influence of Darwin and of Huxley was strong. Cambridge was becoming a center for distinguished work in the biological science (...) (and) (...) biological ideas were then very much in the air and could be absorbed without special effort". See Viner, J., Marshall's Economics in Relation to the Man and to His Times, *The American Economic Review*, vol. 31:2, June 1941, p. 231 f. Viner was reluctant to go into detail concerning how these scientific and intellectual currents influenced Marshall. Clearly there is an exciting research task to be carried out here.

What role will economic history play in the development of theory? Does it have an important task in the changeover from static to evolutionary theory? Does "dynamic economic theory" become possible only when historical experience and historical multiplicity are introduced? Does not the biological analogy presuppose that the preceding pattern of economic development is known? Can knowledge of historical economic conditions facilitate the abandonment of the static theory or its being reduced to a transitional theory between the static and the evolutionary? Our investigation has shown that Marshall did not give any unequivocal answers to these questions. This deficiency, however, may be said to be more than offset by the fact that after the passage of almost a century these questions are still topical and the answers are still awaited.

XX

The possibility cannot be excluded that it was in his campaign for an Economic Tripos that Marshall emerged, in an indirect and perhaps involuntary way, as an opponent of historical elements in the "engine of analysis". The establishment of "economics" as a subject distinct from the more imprecise field of "political economy" signalled not only an organisational victory but also a methodological dissociation from any need for historical, ethical, moral-philosophical or other "soft" elements in "economics". The gulf between historically- and the more theoretically-orientated economists was accordingly widened. The separation also led, whether deliberately or not, to the acceptance of economic history as an independent scholarly discipline. Perhaps this separation has not been given a sufficiently prominent place in the history of English political economy. But the methodological controversies caused the representatives of the original "historical economists" in many cases to adopt a position directly hostile to theory - a position not really compatible with the views which had been expressed by representatives of the English historical school from Jones via Leslie to Ashley (and possibly Cunningham). The possibility cannot be excluded that the hostility to theory was a reaction, and perhaps even an overreaction, to Marshall's successful campaign.

The Cunningham-Marshall methodological dispute would be followed by another one in the early 1920s. The combatants in this one had both been pupils of Marshall. The affair in question is of course the wrangle between

Clapham and Arthur Cecil Pigou.¹⁶⁷ It was initiated by Clapham, and the contribution does not have much of Marshall's "ecumenical" tone.¹⁶⁸ The "divorce" is over, and what matters now is that everyone must take responsibility for the future. As far as Clapham is concerned this means a direct dissociation from theory. The "empty boxes" which political economy can offer the economic historian are empty and remain so, i.e. totally valueless. Economic history is to be regarded instead as a sub-department of the all-embracing subject of history, on a par with religious, military and diplomatic history. What constitutes possibly the most important characteristic of economic history is that the results of research not infrequently permit of being expressed in quantitative terms.¹⁶⁹ Pigou's standpoint in this methodological battle, briefly, is based on the idea that perhaps historical uniqueness and historical multiplicity are of interest in themselves. It is certainly interesting that some English king at some time died from a surfeit of lampreys. But this sort of knowledge does not contribute anything to economic analysis.

"The historian is interested in matters of fact; but the logician is interested in implications. What right has the one to condemn the other?"¹⁷⁰

But let us return to Marshall and attempt to formulate some final conclusions.

Marshall's successful campaign of 1903 for a separate Tripos in Economics also opened the way for the establishment of economic history as a separate *historical* discipline. It signalled the separation of economic history from "economics". In an indirect and certainly unintentional way Marshall helped economic history to become a special history subject at Cambridge. The consequences of this divorce for the two subjects can be and have been debated. To Kadish the divorce means "the contraction of economics" and he

¹⁶⁷ See Clapham J.H., Empty Economic Boxes, *Economic Journal* vol. 32, 1922 and Pigou, A.C., Empty Economic Boxes: A Reply, in the same number of *Economic Journal*. Both articles are reprinted in Stigler, G.J. and K.E. Boulding (eds), *Readings in Price Theory*, Chicago 1952.

¹⁶⁸ See also footnote 15.

¹⁶⁹ A point which Clapham also makes in his presentation of economic history in the 1931 edition of *Encyclopedia of the Social Sciences*.

¹⁷⁰ Stigler and Boulding, *Readings*, p. 132.

regrets the separation.¹⁷¹ Maloney does not believe that the historians understood what was going on in economic science at all. This was particularly so with regard to the application of the marginal principle.¹⁷² To Hartwell, the separation meant that "good old economic history" changes to merely "old history".¹⁷³ Coleman would probably concur in this description of history when, after a long career as professor of economic history at Cambridge, he is forced to confess that in methodological respects the subject of economic history today is neither fish nor fowl. The fusion between history and economic theory which Adam Smith and representatives of the short-lived Scottish historical school were preparing during the latter half of the eighteenth century never came about. But that is another story - more precisely, the story of economic history itself.¹⁷⁴

Whitaker is aware that as Marshall got older he became increasingly conscious of the place of history in economic analysis, and that *Industry and Trade* is a manifestation of this interest. A planned second part of the *Principles*, according to Whitaker, was to be a synthesis between theory and

¹⁷¹ Kadish, *Historians*, chap 7.

¹⁷² Maloney, "Marshall, Cunningham", p. 450f.

¹⁷³ Unfortunately Hartwell does not discuss why no "marriage" came about between "economics" and "economic history". However, he does say that "good old economic history" in fact anticipated much of what the new institutionalist school makes a great fuss about today. For it had "a major interest in the conditions of freedom and restraint, especially those embodied in legal institutions controlling property rights, which limited individual economic action, and devoted much effort to investigating the origins of property rights and the development of customs and law as they affected property rights". Hartwell, *Good Old Economic History*, p. 28.

¹⁷⁴ Coleman, *History and the Economic Past*, chap. 2. See also Skinner A., *Economics and History: The Scottish Enlightenment*, *Scottish Journal of Political Economy*, no 15, 1965. Of Marshall and economic history Coleman says: "Marshall's hope for a 'more philosophical treatment of society as an organism' has certainly not been fulfilled. In its journey from the 'philosophical history' of Smith and Millar to the 'new economic history' of today, what the subject has gained in the exact specification of economic problems it has lost in increased constriction and separateness from the rest of history (...) Marshall was aware of the inappropriateness of his analytical tool-kit for dealing with the larger and longer questions of history." Coleman *op. cit.* p. 128f.

history.¹⁷⁵ At this point Schumpeter's assessment of Marshall may also be recalled: "(...) an economic historian of the first rank (...) his mastery of historical fact and his habit of mind did not dwell in separate departments but formed so close a union that the live fact intrudes into the theorem and the theorem into the purely historical observations".¹⁷⁶

Did political economy take a different direction from that which Marshall really advocated? How is economic analysis to be related to economic history? Is there anything which Marshall "regrets" with regard to the influence which his ideas and methodological standpoints came to exercise? There is a partial answer, and it is comforting for the practitioners neither of political economy nor of economic history:

"If I had to live my life over again I should have devoted it to psychology. Economics has too little to do with ideals. If I said much about them I should not be read by business men (...)"¹⁷⁷

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¹⁷⁵ Whitaker, Some Neglected Aspects, p. 190ff.

¹⁷⁶ See p. 6 of this work.

¹⁷⁷ Pigou, Memorials, p. 37

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