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CONJECTURAL NOBEL PRIZES IN ECONOMICS: 1770 TO 1890*

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1. Introduction

Tonight I wish to talk to you on a subject that I hope will be suitable for a presidential address; in any case, it has been germinating in the back of my mind for a number of years, and is, as you will see, the result of two distinct influences on me. Moreover, I have been fortunate enough to convince my colleague at Carleton University, Professor Edwin G. West, who is a specialist in the area, to co-author this paper with me. (Although I have a maverick interest in the history of economic thought, and even one publication in the subdiscipline, I would not claim to be a specialist, despite a number of years of teaching this course.) Moreover, by forming an *ex post* jury of two, it may be hoped that most of the individual idiosyncracies have been filtered out, by the process of committee discussion.

Two distinct influences have led us to attempt this somewhat delicate (but passionately interesting) subject. First, in commenting on the lives of great economists of the past, in my history of thought classes, I have often found myself saying, "If Nobel Prizes in Economics had been awarded during his lifetime, Adam Smith (or Alfred Marshall or Leon Walras) would have surely won one". Such a remark, even foisted upon defenceless students who depend on your good graces for a satisfactory grade in the course, probably demands a more sustained justification than the mere documentation of the wide acceptance of a scholar's ideas and influence during his lifetime. In this paper, we attempt to provide this.

The second influence is the fact that we, in the Eastern Economic Association, have been singularly privileged in that we have been in contact, through these annual conventions, with no less than seven economists who have won Nobel Prizes. Professors Lawrence R. Klein and James Tobin, two of our ex-Presidents, won Nobel Prizes in 1980 and in 1981, respectively, and we rightly held testimonial dinners at subsequent annual

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conventions to honour their accomplishments. But it should not be forgotten that Professors Arrow, Leontief, Schultz, and Stigler have also participated in our past annual conventions, either as distinguished lectures or as members of a plenary session. Professor Paul A. Samuelson, moreover, the first American Nobel Laureate, favoured us last night as our distinguished lecturer with a fascinating discourse on Marx, Keynes, and Schumpeter. Since this year we are not having a testimonial dinner (only blatant imperialism would enable us to claim Professor Stigler), perhaps we may take a more dispassionate view of the long ago and the far away (with one exception) to see what might have happened if the late eighteenth century and the first nine decades of the nineteenth century had had our mania for awarding prizes for distinguished accomplishment.

Perhaps I should recall to you that, last year, after the second success in a row of one of our ex-presidents, there was some talk that we had been running a school to train Nobel Laureates. Indeed Dr. Saini, our Executive Director, even suggested that some of you who would like to develop in this manner enroll with me. (!) Now of course it is more than likely that Nobel Prize winners, in economics or in other disciplines, are principally created, not taught; it would be a rash individual who would claim that he/she could teach the ability to fashion creative analysis of the sort that wins Nobel prizes. Nevertheless, the temptation to remake history is generally very strong, and so I am going to ask your indulgence for the next hour or so, as we go through intellectual history and try to judge who would have achieved recognition during his own times. It should be a harmless pursuit, as all of our heroes are long since dead, so that we may have a certain objectivity about the whole exercise. Moreover, it is an inexpensive activity as well, because on this occasion there is no need actually to pay out the prize money!

In writing this address, we were excited by the discovery of an observation in the Encyclopedia Britannica that a nineteenth century economist (Lujo Brentano, Professor of Political Economy at Berlin, Strasbourg, and Munich) had already won a Nobel Prize (the Peace Prize) in 1927. However, it now appears that the Encyclopedia Britannica is wrong on this point, the real co-winner from Germany for that year being a Ludwig Quidde.

A more interesting case is that of Leon Walras. In his mature years Walras returned to the same ardent reformist themes of his youth. On of his later writings in this vein was an essay he submitted for the Nobel Peace Prize in 1907 entitled "La paix par la justice sociale et le libre echange". Walras was unsuccessful in his attempt. As you will see, however, he will have better luck with us.

2. Rules of the Game

Before presenting our suggestions about likely "Nobel Laureates" (in Table 2 below), we should state the conventions under which this retrospective game is to be played. We may elaborate five "rules of the game", the first three of which are procedural. First, as in the current competition, the scholar must be living at the time that the award is supposedly presented. Secondly, in any given award year, the prize may be presented to no more than two distinguished economists. Thus, a given "Nobel Prize" year may see the award presented to two, one, or possibly no economists, depending upon the judgement of the "jury" regarding that particular year. Thirdly, we putatively award the "Nobel Prize" only once every five years, in the manner that the American Economic Association awards the Francis A. Walker Medal; we have chosen the decade and semi-decade years (years ending in a "0" or a "5") to be the award years. Given the paucity of the population of economists during this period of one hundred and twenty years, this seemed to us a reasonable manner in which to proceed.

TABLE 1

Ages of Nobel Laureates in Economics at the Receipt of the Award and Frequency Distribution of these Ages and Associated Statistics

a. Nobel Laureates and their Estimated Ages:

<u>Year of Award</u>	<u>Nobel Laureate(s)</u>	<u>Approximate Age</u>
1969	Ragnar Frisch Jan Tinbergen	74 years 66 years
1970	P.A. Samuelson	55 years
1971	S.S. Kuznets	70 years
1972	K.J. Arrow J.R. Hicks	51 years 68 years
1973	W.W. Leontief	67 years
1974	F.A. Hayek Gunnar Myrdal	75 years 76 years
1975	L.V. Kantorovich T.C. Koopmans	63 years 63 years
1976	Milton Friedman	64 years
1977	J.E. Meade Bertil Ohlin	70 years 78 years
1978	H.A. Simon	62 years
1979	W.A. Lewis T.W. Schultz	64 years 77 years
1980	L.R. Klein	60 years
1981	James Tobin	63 years
1982	George J. Stigler	71 years

b. Frequency Distribution and Associated Statistics:

Age range:	<u>51-59</u>	<u>60-64</u>	<u>65-69</u>	<u>70-74</u>	<u>75-78</u>
No. of case:	2	7	3	4	4
<u>Median:</u>	66½ years.				
<u>Range:</u>	51-78 years of age.				

For the two substantive rules, we may explain them as follows. Like the original contest, this is a competition designed to recognize excellence in economic science, as judged by contemporary standards. Since it is impossible to resuscitate genuine eighteenth and nineteenth century scholars, we have attempted to constitute ourselves a jury for this purpose, being always mindful of the need to apply the standards of the times rather than our own retrospective judgements (where there might have been a conflict between the two). In other words, the conjectured awards in Table 2 below represent our best judgement as to likely outcomes in the years under consideration, if a jury of recognized economists of the time had sat down together and attempted to arrive at an award for the year in question, on the basis of consensus. However, we must confess that one semi-conscious bias may have crept in. Of course, we were aware of the death as well as the birth dates of the candidates, whereas a contemporary jury (at least one lacking clairvoyance) would not, of course, have been aware that a given year might constitute the "last chance" for a given candidate. Where we think that we may be under the influence of this particular consideration, we shall signal it, so that members of our audience may apply their own discount to our suppositions.

Finally, to be realistic, the factor of age should be taken into consideration. This is so because, like it or not, in the "real world" (including perhaps even the university world) current marginal productivity does not always reign supreme; supplementary considerations, such as age, may often play an important if secondary role. We have listed, in Table 1, the twenty Nobel Laureates in Economics up to the end of 1982 (with past presidents of the Eastern Economic Association in capitals), together with their estimated ages at the time of the award. (For the sake of simplicity, we assumed that all twenty had had their birthday by the time that the award was received; any error that this simplifying assumption introduces will not have any appreciable effect on what follows.)

From this table of raw data, we next constructed a frequency distribution of ages at the time of the receipt of the award (see Part b of the table); note that the median age for winning the Nobel Prize has been 64½ years from 1969 through 1982, and that the range was between 51 years of age (K.J. Arrow) and 78 years (Bertil Ohlin). If we allow for some trend in life expectancy, we might put a lower limit on the age for receipt of the prize in our contest of, say, 45 years. (This constraint appears to be binding, in several instances.) Similarly, we might say that our contemporary jury appears not to have considered anyone over 80 years of age, and indeed our oldest putative prize winners were 76 years of age (Francois Quesnay and, less definitely, Thomas Tooke). In turn, this is not to assert that current Nobel Prize committees actually apply such rigorous absolute constraints; we are only trying to model the outcome of a process.

3. Results of the Competition, 1770-1890

After this rather long introduction, we may present the results of our deliberations in Table 2. It shows the birth and death dates of the forty-two distinguished economists of the past whom we have considered for our putative "Nobel Prize". Because there is always some residual uncertainty in trying to predict how thinkers of previous centuries would have reacted in the event, we have made three columns to summarize our tentative judgements. In the first column, we have listed the names of fourteen economists who would probably (in some cases, almost certainly) have won such a prize, if such a competition had been held contemporaneously and according to the rules we have already outlined. In the second column, we list another seven winners, but here we are less certain of our judgements that these scholars would have been recognized by their contemporaries. In the case of the economists in columns one and two, we list the year (or, in a few cases, several possible years) in which the individual in question was judged likely to have won the award. The third column lists distinguished thinkers who were judged, for a variety of reasons, unlikely to have succeeded in winning the award

TABLE 2
"Nobel Laureates", 1770-1890

<u>Probably</u>	<u>Maybe</u>	<u>No or Probably Not</u>
Francois Quesnay (1694-1774) 1770		
A.R.J. Turgot (1727-1781) 1775		
David Hume (1711-1776) 1775		
Adam Smith (1723-1790) 1780		Sir James Steuart (1712-1780)
		Cesare Bonesana, Marchese di Beccaria (1738-1794)
Ferdinando Galiani (1728-1787) 1785	Jeremy Bentham (1748-1832) 1805, 1810	James Maitland, Eighth Earl of Lauderdale (1759-1839)
T.R. Malthus (1766-1834) 1815	David Ricardo (1772-1823) 1820	Adam Muller (1774-1829)
J.B. Say (1767-1832) 1820, 1825	James Mill (1773-1836) 1830	Henri de Saint-Simon (1760-1825)
	J.C.L. Simonde de Sismondi (1773-1842) 1835, 1840	Charles Fourier (1772-1837)
		J.R. McCulloch (1789-1864)
		J.H. von Thunen (1783-1850)
W.N. Senior (1790-1864) 1845	Thomas Tooke (1774-1858) 1850	Friedrich List (1789-1846)
		Frederic Bastiat (1801-1850)
		H.C. Carey (1793-1879)
		John Rae (1796-1872)

TABLE 2 Continued
"Nobel Laureates", 1770-1890

<u>Probably</u>	<u>Maybe</u>	<u>No or Probably Not</u>
J.S. Mill (1806-1873) 1855, 1860		H.H. Gossen (1810-1858)
		A.J.E.J. Dupuit (1804-1866)
W.G.F. Roscher (1817-1894) 1865, 1870, 1875	A.A. Cournot (1801-1877) 1875	Karl Marx (1818-1883)
		Henry Sidgwick (1838-1900)
W.S. Jevons (1835-1882) 1880		J.E. Cairnes (1824-1875)
		K.G.A. Knies (1821-1878)
Carl Menger (1840-1921) 1885		Bruno Hildebrand (1812-1878)
M.E.L. Walras (1834-1910) 1885		Alfred Marshall (1842-1924)
Gustav von Schmoller (1838-1917) 1890		F.Y. Edgeworth (1845-1926)

Note: Prospective year or years of the receipt of the award are indicated in square brackets.

during their lifetimes. In general, we shall not be commenting on these non-winners, although some remarks on the group as a whole and on a few of its members will be made in the following section.

Before turning to the individual years, we may note that two very distinguished eighteenth century scholars died too soon to have their merits recognized in this competition. Richard Cantillon, the Irish-French businessman turned economist, died prematurely in a fire in London in 1734, while his Essai sur la nature du commerce en general began to receive recognition only posthumously, in the mid-1750's. Charles Louis Montesquieu was similarly an intellectual giant of the mid-eighteenth century, and in this connection it is interesting to recall that John Maynard Keynes called him (in his introduction to the French edition of the General Theory) the greatest French economist of the era, and in Keynes' view he (Montesquieu) was far superior to Francois Quesnay (our first prize winner). We also know that the Scottish intellectuals of the second half of the eighteenth century (the milieu from which sprang David Hume and Adam Smith) held Montesquieu in enormously high regard. Be that as it may, the great philosophe died in 1755, fifteen years before we begin our contest, and so he would not have been eligible.

The honour of winning the first prize in this competition goes to Dr. Francois Quesnay, the unquestioned leader of les economistes, as they called themselves. (Historians of thought have fixed the appellation of "Physiocrats" upon them, but that is another story.) While few today would agree with the Marquis de Mirabeau that the three great inventions (to that date) were fire, the wheel, and le tableau economique (presumably few were those at the time who would have agreed unqualifiedly with this judgement), nevertheless the Nobel committee was able to cite Dr. Quesnay for his production of the first formal macroeconomic model, one which showed great promise for future development. In addition, it could be argued that Dr. Quesnay and his economistes had succeeded in making economics an independent discipline, with a number of ideas and concepts useful to the formulation of policy. Moreover, it should not be forgotten that the French court of Versailles was, at the time, the centre of intellectual development, and the Physiocrats were the economics scholars of this center, being at the height of their intellectual and political influence in 1770. We think it reasonably probable that an unbiased "Nobel Prize" jury would have given the award to the aging but still vigorous Dr. Quesnay in 1770.

For 1775, the prize was more difficult to award. The intellectual influence of the Versailles court was still very strong, and some members of our hypothetical jury wished to give the award to Anne Robert Jacques Turgot (who was at the time Minister of Finance in Louis XVI's ill-fated monarchy), for his contributions to capital theory and to production theory, including in the latter the statement of what appeared to be an interesting principle, namely the Law of Diminishing Returns. On the other hand, some wished to cite the insightful Scottish philosopher-turned-economist, David Hume, for his interesting contributions to monetary theory and to the evolution of the balance of payments, to say nothing of his work on the theory of interest rates. (In the committee, there was some debate as to whether Hume's ideas, which were presented primarily in the form of isolated essays, should count as much as the more systematic exposition of Turgot's Reflections or even of the systematic exposition of Sir James Steuart's Principles of Political Economy. Finally, the committee decided to split the prize for 1775, awarding it jointly to A.R.J. Turgot and to David Hume. As you know, dear audience, this was just as well, because David Hume would not have been around to compete for the prize in 1780 (and, in any case, he would have been overshadowed by Dr. Adam Smith, his distinguished countryman).

There seems little doubt that 1780 would definitely have been Adam Smith's year. The Wealth of Nations was first published in March, 1776, and by the time that the prize

committee met in November 1780, Dr. Smith's magnum opus was already into its second edition, and plans were already under way to translate it into a number of continental languages. The policy prescriptions of the Wealth of Nations were starting to find their way into the British parliament, where Prime Minister William Pitt was an enthusiastic expositor of Smith's ideas. (Interestingly, it is possible that this great scholar might have been lost to economics. From James Boswell's London Journal, we may learn among other things that, during his days as a professor at Glasgow, Smith of times expressed regret that he had not pursued a military career, an idea that, given Dr. Smith's personality, Boswell found perfectly ridiculous.)

In 1785 the prize was awarded to Abbe Ferdinando Galiani, an Italian clergyman resident in Paris. Abbe Galiani distinguished himself with an early treatise in which he discussed and partially resolved the famous paradox of value, while his interesting Dialogues sur le commerce des bles, published in the very year (1770) that Dr. Quesnay won his award, marked the beginning of the wane of Physiocracy. Accordingly, for both critical and constructive contributions, the committee deemed that the award should go to Abbe Galiani in this particular year. This was just as well, because, as we know, Galiani was to disappear from the scene only two years later, so 1785 was obviously his last chance.

1790 was a dismal year, at least from the view-point of economic science. All four previous prize laureates were dead by the time that the committee met to consider the award for that year, most recently the great Dr. Smith, who had died in July of that very year. (Beccaria's great work, Elementi di economia pubblica, of which the late Professor Schumpeter thought so highly, was published only in 1804, ten years after his death.) The French Revolution, which had begun so promisingly in the eyes of many, was already starting to go to excesses, at least in the view of a number of critics. Altogether, it was a gloomy time, with few promising candidates on the horizon, and the committee thought it better not to award the prize in that particular year.

By 1795, Jeremy Bentham, who was to become the leader of the Philosophical Radicals, had entered into the economics arena with a spirited tract entitled "Defense of Usury", which was published in 1787 and which took Adam Smith to task for advocating legal maxima on the rate of interest (wrongly, on the part of Bentham, in the view of Joseph A. Schumpeter). However, Bentham did not really contribute seminally by this pamphlet. Bentham's later and more original ideas on economics (were largely unknown) outside the circle of Ricardo and the Mills. Certainly he published his Manual on Political Economy but this was mainly an exposition of the ideas of Smith and Turgot. It is true that Bentham's utilitarianism became the implicit philosophy underlying most of the policy prescriptions that the classical school saw fit to adopt. For his work on the "felicific calculus", for his thoughts in developing the philosophic approach of utilitarianism (summarized in the short-hand expression, "the greatest good for the greatest number"), and finally for his reputation on the continent, some may conjecture that Jeremy Bentham might have had a chance between 1805 and 1810. Since to us this is very debatable, we have entered him in Table 2 among the "maybes" for 1805 or 1810.

This leaves the other decade and semi-decade years between 1795 and 1810 without award winners, although it must be remembered that these years, being ones during which the Napoleonic Wars raged virtually incessantly, were turbulent ones and little conducive to economic scholarship. In particular, it might be noted that the great Jean Baptiste Say, our winner for 1820 or 1825, explicitly gave up the study of economics during the reign of Napoleon I, as he found it too dangerous a subject politically during such parlous times.

We note that, by 1815, Thomas R. Malthus was 49 years of age and hence would have been eligible, according to the rules set out at the beginning, for the receipt of our

putative Nobel award. (Indeed, some members of the committee wanted to consider him for the 1810 prize, but his youthful age ultimately counted against him.) There seems little doubt that Malthus would have won the 1815 award. His Essay on Population was well into its later editions, and his theory on this subject captured the imagination of several generations of economists. Moreover, external signs of recognition were coming rapidly as well: in 1804, Malthus was appointed to the chair of Political Economy of the East India College (eventually located at Haileybury), an institution of higher learning intended to train future functionaries of the East India Company. According to Professor Spiegel, Malthus' was the first chair in Britain to be called by the name of political economy, even though his duties entailed the teaching of some history as well. By this time, he had already been elected to the Royal Society (of Great Britain), and similar honours were shortly bestowed upon him by the learned societies of France and Prussia, two leading centres of scholarship.

In short, Professor Malthus was an obvious candidate for the award in 1815, if not earlier. It is perhaps worth remarking that this prize would have been earned before his fascinating work on the theory of gluts, in stark contradiction to the macro-theory of our 1820 or 1825 winner J.B. Say. The prize would also have been awarded before Malthus' work on differential rent (done more or less simultaneously with that of David Ricardo) had a chance to become a part of the intellectual milieu.

David Ricardo would surely have won a "Nobel Prize", had he lived long enough. A short life, however, is a big disadvantage in a competition in which age is not an irrelevant factor, as perhaps the examples of the late Harry G. Johnson and the late Arthur M. Okun (the first a former President of the Eastern Economic Association!) bear witness to in our time. To return to the historical issue, it might be noted that David Ricardo was already 48 in 1820, that his Principles of Political Economy and Taxation had already appeared in 1817 (with generally favourable reviews), and that he had become a member of the British parliament in 1819. In addition, he had established himself as a semi-popular writer on economic questions before the end of the Napoleonic Wars. Thus it seems likely that Ricardo could have won the prize in 1820, although there is always the possibility that the committee might have decided to award it to Jean Baptiste Say in that year, rather than in 1825. In any case, we should consider it ironic if the leading theoretician of the English Classical School were not to receive this hypothetical award, simply because of the shortness of his life.

Jean Baptiste Say was a very able economist of his day, and we have always considered it a great pity that most students of economics -- as well as most professional economists -- know Say principally by his famous (or to some his infamous) Law of Markets. Say's Traite d'economie politique was first published in 1803, but as we have noted above, Say thought it more prudent for the time being to abandon political economy, that very dangerous discipline under a ruler like Napoleon. With the restoration of the Bourbon monarchy, Say brought out a second edition in 1814, and the work went through three further editions during his lifetime. The British members of the Classical School meanwhile had already expressed a high opinion of Say, as his correspondence with Ricardo attests.

The English translation published in 1821 under the title, Treatise of Political Economy, won Say a favourable reputation in the United States. Thomas Jefferson was especially impressed and wanted to offer its author the chair in political economy at the newly founded University of Virginia. Say, however, appeared to prefer the charms of Paris to life on the frontier, and so he was able to resist the blandishments of the distinguished American statesman and ex-president.

Altogether, it seems likely that Jean Baptiste Say would have been awarded the putative prize in 1825 (if not earlier) for his many contributions to the discipline,

including his work on value theory, distribution (including the theory of entrepreneurship, a term he may have introduced to our discipline), and capital theory, as well as for his better known work in classical macro-theory.

Even though Ricardo was dead by 1830, Ricardo's system was very much alive. We must next consider therefore the chances of that devoted colleague and follower of Ricardo's, James Mill. Mill's two major works in economics were Commerce Defended (1808) and Elements of Political Economy (1821; definitive edition 1826), but his History of British India (1817) greatly added to his intellectual reputation with the literate public. Mill's published work, however, was largely a restatement of Ricardian principles (without the qualifications of the master), although there were some points of originality: Mill may share some of the credit (or blame) for the Law of Markets, which Say may have reworked after seeing Mill's own exposition of this theory. On the whole our decision to place Mill as one of the "maybes" in Table 2 seems appropriate. (We might note incidentally that J.R. McCulloch, another able if less original Ricardian, was too young in 1830 to be considered for the prize, by the rules delimited in the introduction to this paper.)

It is not outside the realm of possibility that, in 1835 (or even 1840), our "Nobel Prize" would have been awarded to Jean Charles Leonard Simonde de Sismondi, for works accomplished some years previously. In 1803, Sismondi published a two-volume work entitled, De la richesse commerciale; ou Principes d'economie politique, which contains an excellent discussion of the basis for international trade, anticipating in our time the Heckscher-Ohlin factor proportions analysis, making it an interesting alternative to the Ricardian analysis of comparative costs. However, if the committee wished to balance schools of thought, it would have focussed on Sismondi's second major work, Nouveaux Principes d'economie politique (first edition 1819, second 1827), which contains a clear statement of the underconsumptionist theory in a generally correct manner, namely the assertion that an unequal distribution of income may generate what we call a consumption function whose position is such that maintaining full employment continuously may be extremely difficult. (Schumpeter mentions that Sismondi introduced period analysis to strengthen this assertion, although not always in a clear and logically correct manner.)

It might be noted that both of his books brought Sismondi offers of a university position (including one from the Sorbonne in 1819, the year he published the Nouveaux Principes), which he turned down to remain in his native Geneva. While not a full-fledged socialist, Sismondi was definitely an interventionist (with a romantic bent toward a guild form of organization); as an interventionist, he may have been one of the first of the twentieth century "liberals". In any case, in the conservative (if not reactionary) environment that followed the fall of Napoleon and the restoration of the continental monarchies, his reformist ideas (such as the introduction of social insurance and the encouragement of labour unions) had little chance. We may conjecture, however, that had Sismondi really won one of our "Nobel" prizes it is doubtful that he would have written, as he did a short time before his death, "I leave this world without having made the slightest impression, and nothing will be done".

The prize for 1845 (or possibly for 1840) was awarded to William Nassau Senior, the first holder of the Drummond Chair of Political Economy at Oxford University. In 1845 (or in 1840), Senior was between his two five-year tenures of this chair (1825-30 and 1847-52), but he kept busy as an adviser to government (like a number of our modern Nobel Laureates) and also in his thriving practice of real-property law (unlike most modern economists). In awarding him this prize, the committee cited Senior's seminal contributions in scope and method, value theory, and capital and distribution theory (abstinence as a scarce productive agent, which must be remunerated if a sufficient supply is to be forthcoming), which are admirably set forth in his An Outline of the Science of Political Economy (1836). Perhaps it is ungracious to add that the committee

equally ignored the somewhat lower standard of performance of Senior's Letters on the Factory Act (1837), which both Marx and Schumpeter have scored roundly, although from a different perspective.

The field of macroeconomics is represented by Thomas Tooke, who in 1850 was 76 years of age and hence (if we judge that he indeed did win the prize in 1850) becomes our oldest award winner since Dr. Quesnay, the first recipient of this hypothetical prize. By 1850, the first volumes of Tooke's masterful six volume work, History of Prices had reappeared; the final two volumes, co-authored with William Newmarch, were to come in 1857. Among Tooke's other contributions were his Inquiry into the Currency Principle of 1844 (which Schumpeter found rather polemical) and his leading role in the founding of the Political Economy Club of London in 1821. Tooke may be cited for his detailed empirical work on the development of prices (similar to, but from a different theoretical perspective, the Friedman-Schwartz volume on a monetary history of the U.S.A. in our time) and also for his attempts to construct an alternative to the quantity theory of money, an attempt about the success of which opinions differed at the time and still do, to a certain extent, today.

By 1855 John Stuart Mill was 49 years of age and his Principles of Political Economy, with Some of their Applications to Social Philosophy had already gone through four of the eventual seven editions. Moreover, the book in which J.S. Mill's more original contributions appear, Essays on Some Unsettled Questions of Political Economy (written around 1829 and 1830), was published in 1844. J.S. Mill was, by common consensus, one of the leading intellectuals of the age, and it would be practically inconceivable that he should not have won the equivalent of a Nobel Prize in Economics, had such been available during his time. In saying this, we must recognize that economics cannot claim J.S. Mill exclusively, as he made a number of contributions in philosophy and in political science also; moreover, it should not be forgotten that Mill practiced his discipline of economics or political economy on a full-time basis only during a short period of his life. Nevertheless, his redefinition of the Ricardian vision of the economic process marked an era, and so there is probably no need to cite his specific contributions such as his offer curves in the area of international trade theory, or his treatment of economies of scale and the problem of joint products. We shall suppose that John Stuart Mill won the putative award either in 1855 (when his wife Harriet Taylor was able to savour it with him) or in 1860 (when he would have made a sentimental but probably merited acknowledgement speech paying tribute to her revered memory).

The next scholar to win our hypothetical Nobel Prize is Wilhelm G.F. Roscher, who was to teach at the University of Leipzig for forty-six years, from 1848 until his death in 1894. We think it likely that Roscher would have won the prize in 1870, although it is possible that he might have won it five years earlier or later. In any case, as one of the founders of what has been called "the Older Historical School" in Germany, Roscher enjoyed an enormous prestige and respect, first within the German-speaking world and later in other centres of scholarship. In this connection, we may simply note that Carl Menger dedicated the first edition of his Grundsätze der Volkswirtschaftslehre (1871) to Roscher and also that Roscher's Grundlagen der Nationalökonomie (first ed., 1854) went through 26 editions and was published in an English translation in 1878, under the title of Principles of Political Economy.

Although not antagonistic to theory as such (indeed Roscher's Principles covers much the same ground as does J.S. Mill's), Roscher stressed the relativity of so-called economic laws and the need to verify supposed economic principles by the evidence of experience, as obtained from historical records. We should conjecture that the awards committee would cite Professor Roscher for his seminal work in developing the new paradigm for economic research, with a mention also of his voluminous work in the history of economic thought (it may not be an exaggeration to consider him the Joseph A.

Schumpeter of his day) and also for his life cycle theory of national economies.

The story of the distinguished French academic, Antoine Augustin Cournot, and the initial lack of success of his seminal work in economics, Recherches sur les principes mathématiques de la théorie des richesses, is well known. Of course, it should not be forgotten that Cournot achieved notable success during his lifetime, as a recognized scholar in mathematics (probability theory in particular) and in philosophy and also in university administration (he was the rector of a particular university on two occasions). Moreover, and more pertinent to our discussion here, during the last decade of his life, Cournot started to get some recognition for his earlier work of three and a half decades previously. Both William Stanley Jevons (our laureate for 1880) and Leon Walras (our co-laureate for 1885) recognized explicitly Cournot's contribution to the development of value theory and, in particular, a mathematical treatment of it.

It is not inconceivable that, by 1875, one or both of these leading scholars might have nominated the aged Cournot (he would have been 74 at the time) for the hypothetical award; nor should it be forgotten that both Jevons and Walras were established scholars by that date, Jevons having obtained his professorship at Manchester in 1866 and Walras his in Lausanne in 1870. Thus it is possible that the committee might have cited Cournot, in 1875, for his contributions to value theory, particularly a mathematical formulation of it, and also for his fruitful work in attempting to fill the gap of the functioning of markets with only a few sellers (rather than one seller a monopolist or many sellers), particularly the fascinating case of duopoly. Indeed, if we wish to give the committee the gift of foresight, the committee might have even conjectured that Cournot's solution to the duopoly problem would have been studied with interest even a century later. In any case, if such a felicitous ending to the Cournot story did occur, this shows once again the advantages of a long life. Poor old H.H. Gossen, whom Jevons and Walras equally rediscovered in the late 1870s, did not live long enough to benefit from such belated recognition.

Our laureate for 1880 is W. Stanley Jevons, a fascinating personality who in that year was just barely old enough to have been considered, according to the rules outlined at the beginning. Of course, we know, as the prize committee could not have, that 1880 was the only year for which Jevons could have won the prize, as his life was cut short by a tragic drowning accident two years later. In the realm of the history of economic thought, Jevons is well known for his "rediscovery" of Cantillon. But of course Jevons had a number of major achievements in his own right, also. Schumpeter describes him as "one of the most genuinely original economists who ever lived". His work in the subjective theory of value is probably the domain for which he is best known today, but his other accomplishments should not be forgotten either. His applied work in statistics (trend fitting, seasonal adjustment, graphic presentation and index numbers) would undoubtedly have been cited by the committee, as well as his detailed work documenting a mass of developments concerning individual business cycles.

Perhaps the work that assured Jevons the most reputation among the thinking public of his time was his 1865 work, The Coal Question, which applied the Malthusian theory of an exhaustible natural resource (land, in Malthus' case) to an energy source (coal), thus predicting the unsustainability of the growth of the British economy. While it was fashionable for some time in the twentieth century to deprecate Jevons' pessimism, many of the same concerns have been raised recently by the Club of Rome. In any case, this work brought Jevons to the attention of the aged J.S. Mill, who praised it in parliament, and also to the notice of Prime Minister Gladstone, who sought Jevons' advice on these issues. It is also interesting to note that Jevons had a number of accolades in his own day; for instance, he was elected to the Royal Society as early as 1872.

For 1885, the prize was awarded jointly to the two other economists who played leading roles in the propagation of the subjective theory of value, Carl Menger of the University of Vienna and Leon Walras of the University of Lausanne. The award committee not only cited the works of these two eminent economists in developing the subjective theory of value but also Menger's work on methodology (in particular, his stress on methodological individualism), and Walras' vision of the functioning of an idealized competitive economy, one in which simultaneous equilibrium ruled throughout all the markets of the economy. The work of both of these economists is probably well known to most of the audience tonight; we should simply remind you that the late Joseph A. Schumpeter considered Walras "the greatest of all economists", despite "his questionable philosophies about social justice, his land-nationalization scheme, his projects of monetary management, and other things that have nothing to do with his superb achievement in pure theory".

We envisage the committee in the throes of a difficult decision for 1890, the last year that we shall consider tonight. The choice was between Gustave Schmoller, Professor and later Rector of the University of Berlin (whom the government of imperial Germany was later to ennoble), and Alfred Marshall, who had just ascended to the chair of political economy of Cambridge University five years earlier. Ultimately, the committee decided in favour of Schmoller, perhaps on the ground that Marshall's seminal work (his Principles) was still too fresh to be appraised accurately, while Schmoller had succeeded in imposing both his presence and his approach in an entire country, whose universities were leading centres of scholarship in the final years of the nineteenth century. It should not be forgotten, for example, that a number of American economists, such as John Bates Clark, went to Germany for graduate training in economics during this period.

The Nobel committee cited Schmoller for his work on alternative methods to finding economic truths or reality, as well as his interesting monograph on the clothiers' guild of Strasbourg. Perhaps also there was a subconscious desire to appear neutral in the famous methodenstreit (between Schmoller and Menger and their respective followers) and awarding the prize to both of them in succession was as good a way as any to achieve this end.

4. The Non-Winners: A Vindication by History

We had originally intended to say something at length about each of the excellent or at least original thinkers who appear in the third column of Table 2. But the hour is getting late; and a number of you want to go to pursuits other than the writing of counter-factual history. Accordingly, a few desultory remarks will have to suffice.

J.R. McCulloch, a competent Ricardian, probably suffered from the fact that, by the time that he was old enough to be considered for the prize (1845 through 1860), he was overshadowed by other members of the English Classical School who were more innovative (Senior and J.S. Mill in particular). J.H. von Thunen, H.H. Gossen and A.J.E.J. Dupuit appear to be classic illustrations of innovative thinkers who wrote ahead of their time, as J.S. Schumpeter has so aptly classified them. But the individual whose fertile mind has most clearly had its influence on, and recognition from, history is Karl Marx, whose contributions were discussed and debated this afternoon. It seems relatively clear that Marx would not have even been considered for such a prize during his lifetime, especially since two of the three volumes of his major work Das Kapital (Capital) and his discussion of economic doctrines in Theorien über den Mehrwert (Theories of Surplus Value) did not appear during his lifetime. Indeed, it can be argued that serious academic discussion (or, alternatively, serious professional discussion by non-Marxists) of Marxian economics began only with the publication of Bohm-Bawerk's Zum Abschluss des

Marxschen Systems in 1896, translated in 1898 as Karl Marx and the Close of His System. Thus, whatever our present evaluation of Marx's contributions to our discipline (and the colloquium this afternoon certainly showed a divergence of opinions in this regard), it seems clear that Marx would not have been a strong contender for such an award during his lifetime.

On the other hand, we need not feel excessively sorry for Alfred Marshall, even if we have hypothesized that he finished second in the competition for 1890. Looking forward from 1890, one might say that he would appear to have a promising future in front of him!¹

5. Conclusion

George Stigler once observed that great economists are those who influence the profession as a whole and that they can only do this if their doctrines do not involve too great a change from the views and knowledge of the rank and file of their science. We believe that the bygone authors that we have designated for a Nobel prize have all possessed the necessary qualities for greatness in Stigler's terms. And indeed the award system works through consultations between the Nobel committee and an author's current peer group. We have shown that some economists, such as for instance Cournot or von Thunen, have influenced the profession as a whole only after a lag, so our process of awarding Nobel prizes has been prone to certain accidents of time and circumstance. But what of those economists who fail because, in Stigler's words, their doctrines involve too great a change from that of the rank and file of the profession?

The name of Karl Marx once again comes to mind. The fact that the influence of Marx was a long time maturing was partly due, it seems safe to say, to the delay in translating him into English. As for his intellectual contribution, his method of analyzing the business cycle was probably fifty years in advance of his time. Beyond this it is also probably true to say that his labour theory and his theory of exploitation did involve too great a change from the doctrines entertained by the majority of the profession in his own day so that on Stigler's grounds his chances would have been small.

To have influence on one's current profession is not, in retrospect, merit-worthy in a constant sense. Economics was rather dull, for example, between 1850 and 1870 and possibly during the Napoleonic era. It was far more of an accomplishment therefore to have caught the profession's attention in say the period between 1815 and 1845 than in the middle years of the nineteenth century. But we have worked on the assumption that there was a tendency to award a prize to the best candidates available. Even in a more lively or dynamic period we should recognize that the profession might have made mistakes or might have temporarily been led astray. Some would argue that this was so, for example, during the period of flirtation with Benthamite utilitarianism and during the later part of the century when Schmoller's historical school was so dominant.

But perhaps tonight we too have been led astray, at least in some of our

1. In this regard, it is interesting to note that Professor Samuelson, in his attribution of an hypothetical Nobel Prize in economics from 1901 to 1930 (in his obituary for Bertil Ohlin), concludes that Marshall would have won such a prize in 1902, preceded only by Eugen von Bohm-Bawerk.

judgements. To tell us where and why will at least afford good after-dinner conversation. So thank you for your patient attention, and meanwhile bon appetit!

Secondary References

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