

Only they can penetrate the fog caused by the depth of the great man's wisdom. Schumpeter notes that 'quickly his circle developed the attitude – so amusing but also, alas!, so melancholy to behold – of children who have been presented with a new toy. They thought the world of it. To them it was of incalculable value that only he could fail to appreciate who was too stupid to rise to Ricardian heights.'⁵ Its murkiness and difficulty only heightened the enjoyment and pride of the adepts over their new toy. Nowadays, this effect is considerably heightened by the fact that obscurity gives disciples and critics more to talk and write about, and thus greatly multiplies the career opportunities for scholars in the current age of publish-or-perish.

Another reason for the popularity of Ricardianism was the persistent cadre activity of the indefatigable James Mill. One of Mill's important actions was to help found the Political Economy Club in London in 1821, a club that quickly became for many years the centre of economic discussion and learning in Great Britain. It is characteristic of the early nineteenth century shift of the locus of economics from Scotland to England that this transfer was one of occupation as well as location. In Scotland, economic thought had centred in the two great universities of Edinburgh and Glasgow, with influence spread through academic, literary and business circles, and members of social clubs in the two cities. In England, on the contrary, there was almost no academic economics in the fossilized university courses of the day. Of the 30 founding members of the Political Economy Club, only one – Thomas Robert Malthus – was an academic, teaching political economy at the East India Company's College at Haileybury. The other leading English economists in the club included David Ricardo, businessman and financier Thomas Tooke (1774–1858), with Colonel Robert Torrens of the Royal Marines chairing the first meeting. Others were businessmen, publicists, and government officials.

A few years later, academic opportunities began to open up. Mill's Scottish friend and fellow leading Ricardian, John Ramsay McCulloch, who had been lecturing for several years, became professor of political economy in 1828 at the University College, London, and joined the Political Economy Club shortly thereafter. But after four years of teaching he had to spend the rest of his life as a financial controller. The first economics post at Oxford was a chair founded by the banker and evangelist Henry Drummond in 1825, but the term of the chair was only five years. The first chair-holder was the attorney and important young economist Nassau William Senior (1790–1864), son of an Anglican vicar in Berkshire, who had studied at Oxford and had joined the Political Economy Club two years earlier.⁶ The new King's College, London, established in the same year as University College (1828) as a Tory and Anglican haven to offset its non-denominational neighbour, appointed Senior to its own political economy post in 1831. But Senior was kicked out unceremoniously for publishing a pamphlet urging a reduction in

the budget of the Anglican establishment in Ireland, and he spent the rest of his career as a real-property attorney and government lawyer, with the exception of another Drummond professorship at Oxford in 1847–52.

Cambridge treated economics with such disdain that its only contribution was to have a young lawyer of no distinction in the field, George Pryme, teach economics without pay and at unpopular hours. Pryme taught under those conditions for over 40 years from 1816 on, remarkably becoming professor of political economy in 1828. Apparently he wrote nothing in economics and contributed to no important discussions.

4.2 The rapid decline of Ricardian economics

Before setting out to explain a problem one must be quite sure that the problem really exists. Surely, a partial answer to the conundrum of Ricardo's popularity and dominance over English economics is that that dominance was largely a myth. Until recently, the orthodox view in the history of economic thought was that Ricardianism dominated British thought from the date of Ricardo's *Principles* through Jevons's abortive revolution in 1871, and until the 1890s when Alfred Marshall's neo-Ricardianism supposedly integrated marginal utility into a basically Ricardian framework. One of the last expressions of this orthodoxy came in 1949, when Professor Sydney G. Checkland, from an anti-Ricardian perspective, bewailed the manner in which the two Scotsmen, James Mill and McCulloch, like Ricardo – the Spanish-Portuguese Jew – expatriates from their native culture, and therefore presumably alienated from mainstream English life, used brilliant cadre tactics to acquire their hegemony over English thought. Checkland saw that Mill was the cadre leader of the Ricardians, cleverly advising Ricardo not to give publicity to his critics by deigning to reply to them in the third, 1821 edition of his *Principles*. Mill wrote his *Elements of Political Economy* as a Ricardian textbook in 1821, but since it lacked popular appeal, the younger McCulloch, a charismatic, enormously strong, booming, burly, Scotch whisky-drinking figure of a man, took over as the popularizer and propagator of Ricardianism.

The first important revision of the myth of Ricardian triumph came with the Marxist Ronald Meek's rebuttal of Checkland the following year.⁷ Checkland, he points out, made the crucial mistake – following J.M. Keynes – of treating Say's law as equivalent to the Ricardian system. While Ricardo and McCulloch followed Mill in considering Say's law to be very important, they did not regard it as crucial to the Ricardian system, which actually comprised the Ricardian theories of value and distribution. While Say's law indeed triumphed early, with only Malthus temporarily opposing it, the Ricardian system proper met a very different fate.

In fact, as he managed to do in other areas of the history of economic thought, John Maynard Keynes, in his *General Theory*, skewed and distorted

Ricardian development. It was only Keynes, in his preoccupation with promoting government deficits and inflationism and attacking Say's law, who made that law the central feature of the Ricardian system. It was also Keynes who distorted the facts by holding up Malthus as the proto-Keynesian hero, stubbornly calling for an anti-Say and anti-Ricardian alternative to the Ricardian system. On the contrary, Malthus, despite various differences, considered himself a Smithian and was generally friendly to Ricardianism as well as to Ricardo personally. Malthus's interest in the alleged 'general glut' and in denouncing Say's law, was an ephemeral product of the post-Napoleonic War depression in England. When England's prosperity returned after 1823, Malthus totally lost interest in the general glut question, and wrote no more about it. Say's law had triumphed except among a few radical fringe people in the economic underworld; and Malthus steadfastly refused to be drawn into alliance with them. These fringe persons, who continued their worn-out cries of a general glut into the 1830s, included the prolific left Tory statist poet and essayist Robert Southey (1774–1843), who had attacked deflation after the Napoleonic War, and MP, geologist, and authority on volcanoes George Poulett Scrope (1797–1876). Raising the fallacious cry of underconsumption, Scrope, in his *Principles of Political Economy* (1833), charged that any decline in consumption in favour of a 'general increase in the propensity to save' would necessarily and 'proportionately diminish the demand as compared with the supply, and occasion a *general glut*'. In this old proto-Keynesian fallacy, savings apparently 'leak' out of the economy, and result in permanent(?) depression. Apparently, investment, since it is transitional and not 'final', is not considered spending at all. And then, as in all varieties of crank economic analysis, the price system, and the relationship of selling prices to costs, is somehow not considered worthy of mention at all.⁸

George Poulett Scrope was originally named George Thomson, son of John Poulett Thomson, head of a firm of Russia merchants. He took the name Scrope after marrying an heiress of the Scrope family. Born in London, Scrope studied at Oxford and Cambridge, and was a member of the House of Commons for 35 years. A champion of free trade, he wrote so many pamphlets on economic issues (about 70) that he was commonly dubbed 'Pamphlet Scrope'.

In contrast to the triumph of Say's law, the Ricardian system proper was rapidly repudiated in the world of English economics. In January 1831, eight years after Ricardo's death, Colonel Robert Torrens addressed the Political Economy Club that Ricardo had helped to found. Torrens raised the crucial question: how many of the Ricardian principles were still held to be correct? His answer: all the great principles of Ricardian system had been abandoned, especially the critical ones of value, rent and profits. Samuel Bailey, in his great espousal of the utility theory of value in 1825, had smashed the labour

theory; Thomas Perronet Thompson had disposed of the Ricardian theory of rent; the theory of profit is unsound because Ricardo ignored the replacement of capital; and the Malthusian subsistence theory of wages had been generally abandoned.

To the Marxian Ronald Meek, this wholesale desertion of Ricardianism comprised a capitalist plot against the labour theory of value, whose socialistic implications had been drawn out during the 1820s by the Ricardian socialists. At any rate, by 1829–31, there were no adherents of the labour theory of value left in mainstream British economics; to Meek, the only exception was McCulloch, who in turn had abandoned Ricardo on many other issues, including the idea of productive *vs* unproductive labour, the theory of profit, and the theory of class conflict on the market implicit in the Ricardian theory of distribution.⁹ Only Say's law, with its strong *laissez-faire* implications, had survived what Meek laments as 'the purge'.

But the 'purge' or abandonment came even earlier, antedating the Ricardian socialists. Professor Frank W. Fetter, in his classic article,¹⁰ points out that upon Ricardo's death in 1823, James Mill wrote despairingly to McCulloch and noted that they were 'the two and only genuine disciples' of Ricardo in existence and McCulloch did not stay one for long. Fetter notes that economic opinion in the 1820s was diverse and unsettled, except for a general adherence to free trade. Everyone dismissed the portentous Ricardian conclusion that profits varied inversely to wages, except as a banal arithmetic truism. Furthermore, even Ricardo himself had pointed the way to abandoning his own crucial permanent subsistence theory of wages (which the German socialist Ferdinand Lassalle was later to call 'the Iron Law of Wages'). Ricardo had adopted the subsistence wage theory, taken from the hard-core Malthusian first edition of Malthus's *Essay on Population* (1798). But many of his statements apart from this rigid formal model were really adopted from the much weaker, indeed contradictory, second edition of the *Essay* (1803). These were qualifications which Marx would correctly note amounted to a desertion of the 'iron law'. Criticism of Malthusian doctrine prevailed in the journals by the late 1820s. Thus, in early 1826, a writer noted in the *Monthly Review* that the law of relentless increase in population operates only in poor societies. It moves

in an inverse proportion to the acquisition of wealth; ... it is only when people become more luxuriant, when those engagements which form the principal charm in humble life lose their attractions by the substitution of habits of refinement, that the increase [in population] becomes progressively less.¹¹

Finally, in 1829, Nassau W. Senior's letters to Malthus effectively put the boots to the iron law. In this published exchange of correspondence, following the delivery of his lectures on population (*Two Lectures on Population, to*

which is added *A Correspondence between the Author and the Rev. T.R. Malthus* (London, 1829)), Senior dealt a devastating blow to the Malthusian doctrine. In the first place, while agreeing that excessive population growth could conceivably one day constitute a problem, Senior in effect stood Malthus on his head by pointing out that while population indeed pressed on the food supply in undeveloped countries, the history of the prosperous countries of the West had been marked by an increase in the food supply outstripping the rise in population. Indeed, this fact is simply demonstrated by the rising living standards of the western countries over the centuries. And this economic growth must be due to a general tendency of agricultural and other productivity to rise, as well as people devoting themselves to safeguarding their higher living standards. As a result, population does not grow enough to reduce the living standards of the public to the subsistence level. And while Malthus would not verbally go so far as Senior in speaking of a general 'tendency for food to increase faster than population', it was clear from Malthus's reply that the mellower Malthus of the second edition had triumphed. That Senior saw the full implications of the changes of the second edition is also demonstrated by his own formulation of the population principle: 'that the population of the world ... is limited only by moral or physical evil, or by fear of the deficiency of those articles of wealth which the habits of individuals of each class of its inhabitants lead them to acquire'. (Italics added.)

But while the iron law of wages was in fact finished *de facto*, it still continued to reign, as it were, *de jure*. For Nassau Senior, suffering from excessive piety toward Malthus, lacked the instinct for the jugular that would have stripped the veil of evasions from the grave fallacies of the Malthusian doctrine. Instead, Senior collaborated in the sham, insisting, though he knew better, on continuing to hail the Malthusian principle of population as a cornerstone of economic science. As Joseph Schumpeter, ever alive to the follies of economists, lamented:

[Senior] always treated Malthus with infinite respect – he even called him a benefactor of humanity (sic!) – and did all in his power to minimize his deviation from what he evidently considered to be established doctrine. All the less justification is there for the practice of some later writers who, with nauseating pontificality, treated Senior as a none too intelligent pupil who needed to be set right by Malthus. As a matter of fact, it is perfectly clear that Senior realized the extent to which Malthus' qualifications ought to have spelled recantation and to what degree his adherence to some of his former opinions spelled contradiction.¹²

4.3 The theory of rent

The Ricardian theory of rent was effectively demolished by Thomas Perronet Thompson (1783–1869) in his pamphlet, *The True Theory of Rent* (1826).

Thompson weighed in against this fallacious capstone to the Ricardian system: 'The celebrated Theory of Rent', Thompson charged, 'is founded on a fallacy', for demand is the key to the price of corn and to rent.

The fallacy lies, in assuming to be the cause what in reality is only a consequence... [I]t is the rise in the price of produce ... that enables and causes inferior land to be brought into cultivation; and not the cultivation of inferior land that causes the rise of rent.

Thompson goes on to note in wonder that Ricardo perceived the fallacy in the view that corn sells for a high price because rent is paid, and not vice versa, and yet pressed on to adopt a similar cost theory of price. Here Ricardo reversed cause and effect by maintaining that the cultivation of inferior land causes the price of corn to rise, instead of the other way round.

During the same year, Colonel Robert Torrens himself destroyed the Ricardian theory of rent even more effectively, zeroing in on the crucial fallacy of rent-as-a-differential. Characteristically Torrens, who was involved in all the economic controversies of the day and changed his mind significantly on nearly all of them, delivered his *coup de grace* in the third edition of a work in which he had originally predated Ricardo in the discovery and championing of the theory of differential rent. This work was the *Essay on the External Trade*, originally published in 1815. But now Torrens honed in on the critical point that the rent of land, *A*, does *not* depend on its being more fertile or productive than some other piece of land, *B*; that, on the contrary, the rent on each land stems from *its own* productivity, period, in turn partially determined by the scarcity of that particular land and by the demand for its product. The existence of a return on a piece of land is by no means dependent on the existence of inferior lands. As Torrens puts it:

Neither the gradations of soil, nor the successive applications of capital to land, with decreasing returns, are in any way essential to the appearance or the rise of rents. If all soils were of one uniform quality, and if land, after having been adequately stocked, could yield no additional produce ... still the rise in the value of raw produce ... would cause a portion of the surplus produce of the soil to assume the form of rent.

In the very same year, 1831, that Colonel Torrens was thus pronouncing the death of the Ricardian system, the Rev. Richard Jones (1790–1855), a Cambridge graduate, put the final boots to the Ricardian theory in his discourse 'On Rent', in his *Essay on the Distribution of Wealth*. A Baconian inductivist, historicist, and anti-theorist who paradoxically first succeeded Senior as professor of political economy at King's College, London, and then followed Malthus as professor at the East India College of Haileybury, Jones stressed the error of Ricardo's historical dictum that the most fertile lands are

always cultivated first in every country, which then moved successively to less and less fertile lands. For Schumpeter and others to dismiss Jones's case as confusing historical fact with an abstract theoretical model, misses the real point. Fallacious anti-theorist Richard Jones undoubtedly was; but from his own point of view, David Ricardo was *not* simply setting up an abstract and totally unrealistic theoretical model. Ricardo was interested above all in political applications, and he was deluded enough to believe that his model was spewing forth accurate laws of past and future historical trends. For Ricardo, inexorable rises in rent, crippling future economic development, were a predictable empirical consequence of his own theory. Specific empirical facts cannot give rise to or test theory, but a theoretical law that attempts to predict past and future *can* be validly countered by examining the course of actual history. Empirical facts can properly be used to refute empirical generalizations.

The various demolitions of Ricardo's theory of rent, especially that of Perronet Thompson, quickly triumphed in the economic literature. The Thompson critique had been anticipated in the influential journals, in the *British Critic* as early as 1821, and by Nassau W. Senior in the *Quarterly Review* in the same year. By the early 1830s, Thompson's view had triumphed in the journals, including an article by Samuel Mountifort Longfield, the first Irish professor of political economy at Trinity College, Dublin. By the 1840s, the Ricardian theory of rent was dead in the water, and almost beneath discussion; apart from McCulloch, the only one willing to defend it was the ardent and emotional Ricardian, the poet and writer Thomas De Quincey (1785–1859).

David Ricardo, as he himself acknowledged, did not originate his differential theory of rent. It began in 1777, on the publication of *An Enquiry into the Nature of the Corn Laws*, by the Scottish farmer, James Anderson (1739–1808). An Aberdeenshire farmer, Anderson founded and edited the weekly *Bee*, and later moved to London, where he edited publications in agricultural science and the arts. Anderson's theory, however, remained forgotten, until independently replicated by three writers in 1815: Thomas Robert Malthus, in his *Inquiry into the Nature and Progress of Rent*; Sir Edward West's (1782–1828), *Essay on the Application of Capital to Land*; and the first edition of Torrens's *Essay on the External Corn Trade*. Malthus did not integrate his theory into anything like the Ricardian system, and, furthermore, he was scarcely an opponent of the landlords or of land rent. To the contrary, Malthus defended the Corn Laws. On the other hand, West, an attorney and fellow of University College, Oxford, who later served as supreme court justice in India and died early of disease, so closely anticipated the Ricardian system that Schumpeter habitually refers to the 'West-Ricardian' theory.

The interesting question is: what gave rise, in a very short period of time (1815–17) to such intense concern, or at least attention to, the alleged problems of rising rents? For apart from the relatively unknown James Anderson, attention to rising rents occurs within a very few years shortly after the end of Napoleonic Wars. The answer was brilliantly supplied by the early twentieth century American ‘Austrian’ economist Frank Albert Fetter: the Napoleonic Wars of the first fifteen years of the nineteenth century were marked by high taxation, blockages of food imports, currency inflation, and consequently unprecedentedly high prices for ‘corn’ in England and hence highly inflated agricultural rents. It is surely no accident, as Fetter notes, that ‘the so-called Ricardian doctrine of rent was independently formulated by several other writers – West, Malthus, Torrens and others between 1813 and 1815 – when wheat prices were at their peak’.¹³

4.4 Colonel Perronet Thompson: anti-Ricardian Benthamite

We must pause a moment to consider the fascinating character of Colonel Perronet Thompson, an ardent Benthamite radical, and a champion of free trade and opponent of the Corn Laws. Thompson, the son of a prosperous merchant and banker from Sussex, and MP for a decade, spent the first part of his adult life in the military, retiring from active service in 1822 at the age of 39 with the rank of lieutenant. Despite this relatively low rank, Thompson had been made the first royal governor of the colony of Sierra Leone in 1808, but got himself recalled quickly by clamouring for the abolition of the slave trade. His removal by the Tory British government over the issue of slavery radicalized young Thompson, whose education in classical liberalism was further advanced by reading Adam Smith and Turgot. After retiring from active service, Thompson was compensated for his low rank in important work over a long military career by being repeatedly promoted while inactive. By the time of his death, Thompson had risen to the rank of full general.

Before going into military service, Thompson had graduated from Queen’s College, Cambridge, and been made a fellow of that college. On retiring from the military life, he joined Bentham’s circle of admirers and plunged into Benthamite utilitarianism and radicalism. Thompson’s first published work appeared in the very first issue of Bentham’s own periodical, the *Westminster Review* (1824). His *True Theory of Rent*, designed to uphold Adam Smith’s views on rent as against Ricardo, followed; and the next year, Perronet Thompson published his well-known *Catechism on the Corn Laws* (1827), generally considered the most important work in the entire anti-Corn Law literature. Later, Thompson became one of the most effective members of the Anti-Corn Law League. In 1829, only half a decade since his plunge into politics, the now Lieutenant Colonel Thomas Perronet Thompson became the sole owner of the Benthamite *Westminster Review*, and contributed articles to

every issue until relinquishing ownership seven years later. After being defeated for Parliament in 1834, Thompson won election a year later, taking his stand with George Grote and the philosophic radicals in Parliament. Losing his seat two years later, he ran several times unsuccessfully, serving in Parliament from 1847 to 1852, and again from 1857 to 1859.

Thompson's writings were prolific, and in many areas. At the age of 59, a six-volume collection of his writings to date was published, *Exercises, Political and Others* (1842), and he kept writing pamphlets and newspaper articles on democratic reform until the day before his death, at the age of 86. In addition to his widespread political and economic concerns, Thompson wrote and published works on mathematics, the science of acoustics, and the theory of musical harmony. An organ built on the lines of Thompson's harmonic theory received honourable mention at the Great Exhibition of 1851.

Thompson contributed more to economics than his attack on rent. His first article in the *Westminster Review*, 'On the Instrument of Exchange', followed Bentham's own inflationist views by advocating an inconvertible paper currency. Another, equally dubious, contribution of Thompson's in the same essay followed up a hint made ten years before by Malthus. Malthus, who had been trained in mathematics at Cambridge, had observed, in a pamphlet in 1814, that differential calculus might prove useful in the theory of morals, economics and politics, since many questions in these disciplines centre around the pursuit of maxima and minima. By the time of the publication of his *Principles of Political Economy* in 1820, however, Malthus had wisely grown sceptical of the possibilities of maths in economics as well as in ethics and politics. Thompson, however, also trained in mathematics at Cambridge, had no such scruples, and his 1824 article opened a fateful door by using the differential calculus in defining a maximum gain. The perfect Benthamite, steeped in looking at maxima of pleasure and minima of pain, had struck a fateful chord; Pandora's Box had been opened.

Thompson's sympathy for mathematical economics, however, did not keep him from denouncing the Smith-Ricardo search for a fixed and invariable measure of value, which he wisely dismissed as a chimera. Furthermore, in the *Westminster Review* in 1832, Thompson trenchantly criticized all cost theories of value, pointing out that cost and price almost always differ. And these differences, he added, are not accidental and ephemeral, as Smith and especially Ricardo assumed in their focus on the long-run 'natural' price; on the contrary, these 'short-run' differences are the essence of the dynamic real world: 'This perpetual oscillation on both sides of the cost price, instead of being an inconsiderable accident, is in reality the great agent by which the commercial world is kept in motion'.

4.5 Samuel Bailey and the subjective utility theory of value

In 1825, Samuel Bailey (1791–1870), a rising young merchant from Sheffield, published a thorough demolition of Ricardian value theory, in his *A Critical Dissertation on the Nature, Measures, and Causes of Value*. Bailey at last brought into English economics the subjective utility theory of the French tradition; unfortunately, he was not gracious enough to acknowledge that fact. While his essay was clearly in the Say tradition, for example, his brief and brusque references to Say's *Treatise* gave no hints of acknowledging his indebtedness. But in any case, Bailey's demolition of Ricardo was devastating. Beginning with Ricardo's definition of value as the relative price, or purchasing power, of particular goods, Bailey went on to show the absurdity and inner contradiction of Ricardo's claim that each good acquires an absolute and invariable value from the quantity of labour hours embodied in its production. For one thing, if the quantity of labour needed to produce good *A* remains the same, its value, contra Ricardo, can scarcely be invariable, if the quantity of labour embodied in other goods, *B*, *C*, *D*, etc. has changed. In short, value is strictly relational, a ranking among goods, and therefore cannot be absolute or invariant. Furthermore, Bailey demonstrates that value is not inherent in goods at all, but is rather always a process of subjective *evaluation* in the minds of individuals. Value, as Bailey pointed out, 'in its ultimate sense, appears to mean the esteem in which any object is held. It denotes strictly speaking, an effect produced on the mind ...'. Value is purely a 'mental affection'. Furthermore, he profoundly states that value is not only a subjective estimation, but also that valuation is necessarily *relative* among various goods or objects; value is a matter of relative preference. Thus Bailey:

When we consider objects in themselves, without reference to each other; the emotion or pleasure or satisfaction, with which we regard their utility or beauty, can scarcely take the appellation of value. It is only when objects are considered as subjects of preference or exchange, that the specific feeling of value can arise. When they are so considered, our esteem for one object, or our wish to possess it, may be equal to, or greater or less than our esteem for another...

But if value is subjective and relative (or relational) valuation, it follows that it is absurd for Ricardo to hanker after an invariable measure of value.

In a scintillating and telling passage, Bailey displays the inner contradictions and absurdities of any objective, absolute theory of value, and specifically of the Ricardian quantity of labour variant. The Ricardians had lost sight of

the relative nature of value, and ... consider it as something positive and absolute; so that if there were only two commodities in the world, and they should both

from some circumstance or other come to be produced by double the quantity of labour, they would both rise in real value, although their relation to each other would be undisturbed. According to this doctrine, everything might at once become more valuable, by requiring at once more labour for its production, a position utterly at variance with the truth, that value denotes the relation in which commodities stand to each other as articles of exchange. Real value, in a word, is on this theory considered as being the independent result of labour; and consequently, if under any circumstances the quantity of labour is increased, the real value is increased. Hence, the paradox, [quoting from the devoted Ricardian Thomas De Quincey] 'that it is possible for A continually to increase in value – in real value observe – and yet command a continually decreasing quantity of B'; and this though they were the only commodities in existence.

In sum, as Bailey pungently noted, 'the very term absolute value, implies the same sort of absurdity as absolute distance...'.

Bailey then enters into a penetrating discussion of the theory of measurement, showing the tremendous gulf between genuine measurement of real or physical objects and any concept of 'measuring' something as subjective and relative as human valuation. In the case of physical objects, such concepts as length or weight are measured by fixing an invariant physical measure, such as a foot rule, and then comparing the length of other objects in question with such a rule. In human valuation, 'measurement' is quite different; it is simply the expression of prices or relative purchasing powers of different goods in terms of one money, or medium of exchange. Here there is no physical operation such as measurement of physical objects. In the case of money there is a 'common expression or denominator of value' in money rather than an invariable physical object of comparison. In fact, these prices or quantities are relative and variable, and there is no invariability involved. Indeed, Bailey would have done still better to abandon the term 'measure' altogether, and to confine it strictly to the invariant standards used to compare physical objects, simply confining the idea of comparing relative prices in terms of money to the term 'common expression' or common denominator'. A great deal of confusion in economic theory might have been avoided.

In the course of demolishing the idea of an invariable measure of value, Bailey took deadly aim at the notion that the value of money is invariant over time, and therefore can be used to compare general prices over time. While the money commodity is not more fixed in value than any other, one of its attributes, and one of the reasons it is chosen as money on the market, is its 'comparative steadiness of value', as Bailey sensibly termed it in a later work on money and its value (*Money and its Vicissitudes in Value*, 1837). But its value is not constant, and therefore there is no way of measuring value over time. But commodities only have value relations to each other at the same time; a commodity has no value relation to itself at different times. As Bailey puts it:

We cannot ascertain the relation of cloth at one time to cloth at another, as we ascertain the relation to cloth in the present day. All that we can do is to compare the relation in which cloth stood at each period to some other commodity ... We cannot say, that a pair of stockings in James the First's reign would exchange for six pair in our own day; and we therefore cannot say, that a pair in James the First's reign was equal in value to six pair now, without reference to some other article. Value is a relation between contemporary commodities, because such only admit of being exchanged for each other; and if we compare the value of a commodity at one time with its value at another, it is only a comparison of the relation in which it stood at these different times to some other commodity.

Until recently, historians have believed that Bailey's work made no impact on the Ricardian world of British economics, and fell into obscurity, only to be resurrected at the end of the nineteenth century by economists looking for forerunners of the marginal utility theory. Actually, we now know that, despite a vicious personal assault (probably by James Mill) on Bailey in the *Westminster Review*, Bailey's *Critical Dissertation* was widely read among economists and virtually swept the field. In his January 1831 funeral rites for the Ricardian system before the Political Economy Club, Colonel Robert Torrens declared that 'as to value', Bailey's *Dissertation* 'has settled that question'. Indeed, the year after Bailey's work was published, Torrens praised it highly in the third edition of his *Essay on the External Corn Trade*, calling it in his preface 'a masterly specimen of perspicuous and accurate logic', spearing 'that vague and ambiguous language in which some of our most eminent economists have indulged'. And remarkably, the changeable Torrens stuck to that estimate throughout his life. In the lengthy introduction to his *The Budget* (1844), in which he revised and retracted many of his earlier views, Colonel Torrens went out of his way to affirm that 'the gifted author of "A Dissertation on the Nature, Causes, and Measures of Value"', has set finally at rest the long agitated question, whether value should be regarded as an absolute or positive quality inhering in commodities, or as a relation existing between them'.

Samuel Bailey wrote an effective reply to the *Westminster* critic (*A Letter to a Political Economist*, 1826), but apart from this and his *Money* tract, most of his numerous writings dealt with philosophy and with political reform. For this prosperous Sheffield merchant, born into a mercantile family, founder and four-time president of the Sheffield Literary and Philosophical Society, was in intellectual matters an ardent Benthamite. He devoted the bulk of his intellectual resources to Benthamite writings on philosophy and on radical reform, and twice ran unsuccessfully on a reform ticket for Parliament. Bailey made a considerable philosophical impact with his first book, his *Essay on the Formation and Publication of Public Opinion* (1821). The *Essay's* emphasis on the utilitarian value of free discussion greatly influenced James Mill, John Stuart Mill's *On Liberty*, and Francis Place. In economic

matters, Bailey's *Essay* grounded economic activity in subjective, mental phenomena, and explicitly rejected the emphasis on British classical economics on physical material objects. The methodology of economics, Bailey maintained, was introspective of one's empirical surroundings. Bailey saw economics as a 'science of mind' rather than as technology. Clearly, his methodology and philosophy of economics were far more 'Austrian' than has been realized.¹⁴

Bailey's later works were non-economic, including *Essays on the Pursuit of Truth* (1844), *The Theory of Reasoning* (1851, 1852), and three series of *Letters on the Philosophy of the Human Mind* (1855–62). His final publication was a two-volume book using etymology to rearrange and reinterpret some of Shakespeare's plays (*On the Received Text of Shakespeare's Dramatic Writings and its Improvement* (1862–66)).

Samuel Bailey was the most important and influential subjective value theorist; but he was not the first to bring subjective utility theory to nineteenth century Britain. That honour belongs to the virtually unknown Scotsman, John Craig (c. 1780–c. 1850). All that we know about Craig is that he was a citizen of Glasgow, and was a member of the fellowship of the Royal Society of Edinburgh, and yet nothing else is known about his occupation or background. After writing a three-volume work on the *Elements of Political Science* (1814), Craig made his striking if unnoticed contribution to economics, in his *Remarks on Some Fundamental Doctrines of Political Economy* (1821).

Craig not only brought utility into a British economics dominated by discussions of cost and 'natural price'; for the first time in Great Britain, he brought value theory to the verge of the concept of marginal utility. Starting with the axiom that utility is the basis of all value, Craig proceeds to the influence of supply: 'relative values of commodities may change, and those persons who happen to be possessed of articles which are produced in larger quantities than formerly, or which from other circumstances becomes less in demand, may find themselves poorer...'. In short, greater quantity leads to a lesser value. More abundance leading to lower value had once been a commonplace of economic thought; but precisely why is this true? Craig first notes that an increased quantity of, say, broadcloth will lower its price. He then goes on to explain, in a truly notable passage, that

All of the broadcloth, that, in the estimation of purchasers, was worth the former price, had been formerly brought to market, and if more is now to be disposed of, it must be to those who did not reckon its utility equivalent to its former cost. New purchasers indeed will appear in proportion to the reduction of price; because at every step of the decline it is brought down to the estimate, which an additional number of persons had formed of its power of producing gratification, or in other words, to their estimate of its value in use.

Thus, John Craig not only explicitly refuted the dominant Smithian view of the separation of value in use from value in exchange, showing that the latter depended strictly on the former. Even more important, Craig had captured the essence of the marginal utility doctrine without the label: showing that as the quantity of a good increases, its price or value must fall in order to tap a new group of purchases whose utility estimate of the good had been too low to allow them to purchase the good at the original higher price for the smaller product. In short, purchasers previously sub-marginal now become marginal for the additional product as the price falls. As Professor Thor Bruce declares,

Craig appears on the very verge of expressing the idea of marginal utility. He broke away from the theory held by his contemporaries, which was based on the cost idea, and became the first exponent of the idea of the connection between utility and value. In thus emphasizing the utility theory he was the forerunner of the Austrian School of the latter half of the nineteenth century.¹⁵

Craig doesn't stop there. If more broadcloth, for example, has been produced and its price has therefore fallen, the previous purchasers now have surplus revenue, which they will use to increase the demand and therefore the price of other products. Hence the fall in value of broadcloth will increase the demand and the price of other goods. Therefore, an increased supply of some goods does not necessarily lead to a fall in general values, but rather to a restructuring of prices and to additional real income to consumers.

Craig concludes from his value analysis that exchange-value not only depends on use-value, but is also an accurate measure of that value. Craig points out in his introduction to the *Remarks* that only after the body of his tract was written did he come across J.B. Say's *Treatise* and see the similarity in approach. He adds, however, that Say's proper concentration on exchange-value should have been amended to point out that it is also the embodiment or expression of value in use.

Attacking the Ricardian labour or cost theory of value, Craig points out that the value of any good is determined not by its cost of production, but by its demand and supply, the demand varying continually in accordance with consumer desires, and the supply changing according to the scarcity or abundance of its factors of production, as well as the fertility of agriculture. Or, as Craig put it:

even if the cost were ascertained, it would not enable us to judge of the exchangeable value. Exchange value depends entirely on the proportion in the market which the demand for an article may bear to the supply, a proportion ever varying, on the one hand, according to the plenty or scarcity of capital or labour, and the fertility of the season.

If Samuel Bailey was preceded by John Craig, he was succeeded, six years after his *Dissertation*, by Charles Foster Cotterill, in his *an Examination of the Doctrine of Value...* (1831). Cotterill not only generally endorsed Bailey's subjective utility theory; he also pronounced, the same year as Torrens, the demise of the Ricardian movement, noting bemusedly that 'there are some Ricardians still remaining'.

4.6 Nassau Senior, the Whately connection, and utility theory

During the late 1820s, Nassau W. Senior delivered a series of lectures as Drummond professor at Oxford, some of which were collected in Senior's only published book, his *Outline of the Science of Political Economy* (1836). Senior carried forward Bailey's subjective utility theory; how much he was influenced by Bailey is difficult to say, since, like all too many economists of his era, Senior acknowledged virtually no like-minded colleagues or influences upon his own work.

Senior did acknowledge J.B. Say, however, and began his value analysis by stating that value depends on utility and scarcity, thus returning to the continental tradition. Senior added that utility is relative to human desires and to different persons, and is not intrinsic in objects. Utility, he pointed out:

denotes no intrinsic quality in the things which we call useful; it merely expresses their relations to the pains and pleasures of mankind. And, as the susceptibility of pain and pleasure from particular objects is created and modified by causes innumerable, and constantly varying, we find an endless diversity in the relative utility of different objects to different persons, a diversity which is the motive of all exchanges.

Scarcity, or the natural limitation of supply, was for Senior the main influence on relative utility. In the course of his discussion, Senior virtually came to formulate the law of diminishing marginal utility:

Not only are there limits to the pleasure which the commodities of any given class can afford, but the pleasure diminishes in a rapidly increasing ratio long before those limits are reached. Two articles of the same kind will seldom afford twice the pleasure of one, and still less will ten give five times the pleasure of two.

While he was completing his studies at Oxford, young Senior acquired as his tutor a young man, only three years older than himself, recently appointed as a fellow at Oriel College, from which he had graduated several years earlier. The Rev. Richard Whately (1787–1863), philosopher and theologian, and son of an Anglican minister, was to become Senior's close and lifelong friend. Even though Senior became an attorney, he remained a central part of the Oriel College circle clustered around the charismatic Whately. The circle engaged in literary studies and pursuits, with Senior publishing several liter-