ary articles and launching a short-lived literary and intellectual quarterly, the *London Review*. Whately published what was to become the standard text on logic, the *Elements of Logic* (1826), in which Senior included an appendix on 'Ambiguous Terms Used in Political Economy'. Indeed, Whately was probably responsible for injecting an unfortunate tendency in Senior towards word-chopping and logomachy, which helped dampen the influence of the great Senior in the world of economics. At any rate, Senior learned philosophy and theology from Whately, and the latter economics from Senior.

In Oxford, the Oriel circle was becoming a highly influential centre for Liberal and Whig views within the Anglican Church, a remarkable influence indeed in that traditionally high Tory and High Church university.[16] When the Drummond professorship in political economy opened up in 1825, Whately secured the post for Nassau Senior, and when Senior's term expired five years later, he recommended and obtained the position for Whately as his successor. Whately's Drummond lectures, the *Introductory Lectures on Political Economy* (1831, 2nd edition, 1832) continued and expanded the Senior tradition, particularly in value theory.

Indeed, methodologically, Whately went further than Senior. His linguistic and philosophical interests led Whately to see that the concept and terminology of 'political economy' tended to confuse and conflate these two distinct fields. This confusion hindered the scientific development of economics; hence Whately proposed substituting a new word, *catallactics*, the science of exchanges, for political economy. Whately defined man as 'an animal that makes exchanges', pointing out that even the animals nearest to human rationality did not have 'to all appearance, the least notion of bartering, or in any way exchanging one thing for another'. Focusing on human acts of exchange rather than on the *things* being exchanged, Whately was led almost immediately to a subjective theory of value, since he saw that 'the same thing is different to different persons', and that differences in subjective value are the foundation of all exchanges. Moreover, Whately pointed out that 'labour [is] not essential to value', and noted that pearls do not 'fetch a high price *because* men have dived for them; but on the contrary, men dive for them because they fetch a high price'.

Whately saw that the economic realm, and particularly exchange activity on the market, deserved its own sphere of analysis and inquiry. Even if integration later takes place, as analysis is applied to the political realm, there must first be a separation to allow the reasoning process its head.

But after separation and analysis, integration; and Richard Whately understood that the very fact that a separate sphere was secured for catallactic analysis meant all the more that integration with moral and theological analysis was required in order to come to policy conclusions. In his Drummond lectures, Whately was concerned to show, first, that, contrary to Oxford

Tories, political economy was not sinful, materialistic, or opposed to Christianity. In the first place, political economy is not to be considered, as had Smith and the classicals, a study of wealth; it is instead a study of human exchanges. But even a study of wealth is not sinful; in the first place, it is not sinful *per se* to examine the means of increasing wealth. There is no need for the political economist to step beyond his role as a scientist or catallactician, and advocate *policy* as a means of acquiring wealth or on any other grounds. Indeed, once he does so, he advocates public policy not as a political economist but in some other capacity. Whately also denounced, in their turn, the attempt to monopolize economics by the aggressively atheistic, secular, and 'anti-Christian' Ricardian circle. Certainly the latter adjective would not be excessive for people like James Mill and the Benthamite radicals. Whately also believed Ricardian teachings to be dangerous and 'anti-Christian' in the sense that they implied inherent class conflict between capital and labour, and between landlords and everyone else, and therefore denied the essential *laissez-faire* insight of a harmonious social order, an order that testifies to the existence of divine wisdom. In short, for Whately *laissez-faire* harmony and Christian insight into a divine order meet on a broad integrative level. Thus, while economic analysis is scientific and value-free, and cannot *directly* imply political conclusions, such analysis will lead to *laissez-faire* conclusions and, as such, is perfectly consistent with Christian insight into a beneficent divine order.

In addition to his subtle exposition on the nature of and distinctions among positive and normative economics, Whately denounced the naive fact-gathering methodology of the Baconian Cambridge inductivists, led by Richard Jones and William Whewell. The role of fact-gathering, Whately perceptively pointed out, was not in framing theory but in applying it to specific conditions. Looking at facts without the guidance of theory in their selection is virtually impossible. Scientific advances, Whately correctly noted, come not from gathering more data, but from looking at old facts in new ways – an example was modern insight into the nature of the circulation of the blood.

In 1832, Richard Whately left his Drummond chair prematurely on getting a surprise appointment to the high post of Anglican archbishop of Dublin, where he scandalized the evangelical faithful by refusing to be anti-Catholic and by insisting on being joyous on the Sabbath. The position of archbishop carried with it being one of the two 'visitors' of Trinity College, Dublin, the two who formed the ultimate appeals court for all intra-College disputes. Whately used his clout at Trinity to drive through, over fierce opposition, the establishment of a new chair of political economy at Trinity, under terms closely modelled on the Drummond chair. For the rest of his life, Whately examined and selected candidates for the post himself, and paid the salary of the professors.

The opposition from the board and the provost of Dublin University was based on a fear of the alleged radicalism of political economy. The provost wanted Whately to guarantee that the holders of the new chair would have 'sound and safe conservative views', to which the archbishop indignantly replied that he was 'appalled at such a suggestion, involving as it did the introduction of party politics into the subject of abstract science...'.

It was a subtle but important distinction that Whately was trying to convey – on an issue that plagues academia to this day. He was saying that it was proper – indeed important – to select a professor with the correct view of the broader implications of his subject as well as of its strictly scientific aspects. Yet it was decidedly not proper to judge the professoriat on the basis of their direct positions on narrow political issues, which Whately lumped together as 'party politics'. Thus, in gaining agreement on the Whately chair, the archbishop closely quizzed and selected the professors on the basis of their commitment to the Christian-liberal view of the harmony of the universe in general, and of the free market in particular; and to the Senior subjective utility theory of value as against the Ricardian labour theory.

Whately himself wrote a bit more on economics, reiterating his ideas in his *Easy Lessons on Money Matters; for the Use of Young People* (1833), an enormously popular work for children, that went into 15 editions in the next 20 years, and was translated into many languages. Remarkably, in this primer Whately hinted at another huge theoretical advance: generalizing the theory of pricing for all factors of production: 'If you consider attentively what is meant by the words Rent, Hire, and Interest, you will perceive that they all, in reality, signify the same sort of payment.'[17] But, unfortunately, Whately did not apply himself further to economics, and insights into value or distribution theory became scattered and fragmentary. From now on, he would have to rely on Whately chair holders to pursue the subjective tradition more systematically.

The first holder of the Whately chair suited the archbishop's requirements admirably. Samuel Mountifort Longfield (1802–84), the son of an Anglican vicar in County Cork, Ireland, had graduated from Trinity College a decade earlier and had won a gold medal in science for particular excellence in mathematics and physics. Longfield later won a coveted fellowship at Trinity, a post concentrating on mathematics and sciences – areas in which Trinity was far stronger than Oxford and Cambridge, which were just now enlarging their exclusively classical curriculum to enter the modern world. While serving as fellow of the college, Longfield entered Dublin Law School, and, graduating in 1831, became assistant to the Dublin professor of feudal and English law. Not only that: Longfield delivered a series of public lectures on the common law that was highly favourably received.

Mountifort Longfield more than fulfilled Whately's expectations. Not only did he use the leisure and the stimulus of the chair to hammer out a remarkably complete subjective and even marginalist theory of value and distribution – a genuine alternative to Ricardianism; he also imparted his stamp and the tradition of a subjective value theory alternative on Dublin University, leaving worthy successors to his chair. The brunt of Longfield's system was presented in his first published series of lectures, *Lectures on Political Economy* (1834). During the rest of his term, Longfield published two more sets of lectures; in 1836, he left the Whately chair to resume his legal career, becoming Regius professor of feudal and English law at Dublin University. Later he became a member of the Queen's Council. Longfield was an expert in real estate law, and in 1849 he was appointed as one of the three land commissioners in Ireland. A decade later, he became the prestigious judge of the landed estates court in Ireland. From then on he was known widely in Great Britain as 'Judge Longfield' for his efforts on behalf of land reform in Ireland. Aside from a few articles on banking, Longfield had no further leisure to pursue economic studies, and so his remarkable contributions to economics were crammed into his four years in the Whately chair. At the end of his life, Longfield returned to his early interest in mathematics, publishing a mathematical text, *An Elementary Treatise on Series*, in 1872.

Longfield's broad perspective of market harmony was quite similar to Whately's. In his *Lectures*, he wrote that the 'laws according to which wealth is created, distributed, and consumed, have been framed by the Great Author of our being, with the same regard to our happiness which is manifested by the laws that govern the material world'. Furthermore, Longfield was disturbed by Ricardo's pessimistic theory of distribution, and his portrayal of inherent class conflict between workers, capitalists, and landlords, with the former two being doomed by an inevitable rising lion's share of the product accruing to the unproductive class of landlords.

In value theory, Longfield worked out the subjective theory of value and price more fully than had been accomplished before in Great Britain. He concentrated firmly on market price as the important consideration rather than long-run price, and also showed that both are in any case determined by supply and demand. Longfield broke important new ground in his detailed marginal analysis of demand. Here he worked out the concept of consumer demand as a schedule, related to sets of prices, and even developed the idea of individual falling demand schedules as the fundamental basis of aggregate market demand. Even more fully than John Craig, Longfield showed that market demand curves are constituted by a spectrum of supramarginal, marginal, and submarginal buyers, each with different intensities of demand. Furthermore, 'the measure of the intensity of any person's demand for any commodity is the amount which he would be willing and able to give for it, rather than remain without it, or forego the gratification which it is calculated to afford him'. Yet, of course, despite the different intensities of demand, all exchanges will be at the same market price. If, then, 'the price is attempted to be raised one degree beyond this sum, the demanders, who by the change cease to be purchasers, must be those the intensity of whose demand was precisely measured by the former price... Thus the market price is measured by the demand, which being of the least intensity, yet leads to actual purchases'. In short, the marginal demand becomes a key to the determination of price.

In his analysis of supply, Longfield showed that the supply relevant to the real, day-to-day market price is a previously produced stock of a good now fixed for the immediate present period (in short, what would now be called a vertical supply curve for the immediate market period). Furthermore, Longfield saw clearly, in contrast to Ricardo, that cost of production in no sense determines price; at most, it contributes indirectly to that determination by affecting the extent of supply. His analysis comes close to the later Austrian theory by brilliantly pointing out that the effect of cost on supply comes from the expectations of producers in deciding how much of a good to make and put on the market. Thus the cost of production acts by its influence on the supply, 'since men will not produce commodities unless with the reasonable expectation of selling them for more than the cost of producing them'.

Professor Laurence Moss, a biographer of Longfield, has deprecated the latter's contribution to value theory as not a marginal utility theory.[18] Moss complains that while Longfield realized that utility was the source of all demand, he did not analyse utility beyond that, and stuck merely to an analysis of marginal demands and the demand schedule. This revisionist view seems merely to quibble over terms; while Longfield did not use the term marginal utility or break 'utility' down into individuals or groups, his doing so for demand and the degrees of demand goes most of the way towards a complete utility theory. Professor Moss is in danger of mistaking the term for the substance. It is true, however, that an unfortunate lingering Ricardianism led Longfield to endorse labour as a measure of value, a concept which is every bit as fallacious as the labour theory of value itself.

In Ireland, as we shall see, Mountifort Longfield, aided by Whately, left an important legacy of subjective value theory and anti-Ricardianism to his successors in the Whately chair at Dublin. But, unfortunately, he had no influence in England, where he was ironically well-known as Judge Longfield the Irish land reformer and unknown as an important and challenging economist. Senior, though closest in doctrine, knew of Longfield but only referred to him once on a trivial point and displayed no signs of being influenced by him. This neglect was intensified by the extreme provinciality of English economics in the nineteenth century. Generally, they would not deign to notice foreign writers, especially 'colonials' like Irishmen and Americans from whom they might have profited.

But Mountifort Longfield did succeed, at least, in establishing a utility-value tradition in Ireland. His successor in the Whately chair, Isaac Butt (1813–79), proudly called himself a disciple of Longfield, and advised his students to read, above all in economics, Longfield, Say and Senior – a worthy trio indeed. Like Longfield, and even more so, Butt's economic contributions were confined to the 1836–40 term of his Whately chair, his most important publications, *Introductory Lecture* (1837) and *Rent, Profits, and Labour* (1838), consisting of lectures delivered at Trinity. As we shall see below, Butt's main contribution was generalizing Longfield's marginal productivity theory of factor pricing and integrating Say's utility analysis with that theory. In utility theory proper, Butt corrected Longfield's Smith-like error in referring to consumption *per se* as 'unproductive'. Butt also noted that the labour theory of value might be in a sense applicable if labour were the only scarce resource, and if, moreover, it were homogeneous and costlessly mobile between industries. But such conditions are of course impossible.

Isaac Butt began as a precocious classical scholar and translator of Virgil. He was named to the Whately chair at the early age of 23, and, while teaching there, he took his bar examinations. After his term was over, Butt became an eminent attorney, and soon became an alderman of the City of Dublin. Later Isaac Butt denounced British policy during the Irish famine, and went on to became a famous and hard-hitting advocate of Irish home rule. Butt defended leaders of the Irish rising of 1848 in court, as he did the Fenian rebels in the late 1860s. Butt was also the founder, leader and chief organizer of the Home Rule Party, serving for a while in Parliament. His published writings after his Trinity period dealt with the Irish land question, where Butt advocated land reform on behalf of the Irish tenantry. As a tenants' advocate, Butt took the poorly paid side of these legal disputes, and hence was never well off and was often deeply in debt. His main publications on the Irish question were *A Voice for Ireland – the Famine in the Land, What Has Been Done and What is to be Done* (1847), and *The Irish People and the Irish Land* (1867).

Isaac Butt's successor in the Whately chair, James Anthony Lawson (1817–87), was also an attorney involved with the Irish question, but he took the opposing route to Butt, becoming a stern advocate of British law and order and suppression of his rebellious countrymen. Lawson also became the holder of the political economy chair at a remarkably early age (24), serving the full term from 1841 to 1846. Lawson entered Parliament, and rose to become solicitor-general and then attorney-general for Ireland, becoming a judge of the Common Pleas in 1868. There he meted out punishment for land rebels and Fenians; while Richard Cantillon remains as the only possibly murdered man in the history of economic thought, Lawson suffered an attempted assassination on the streets of Dublin in 1882.

Lawson's productivity in economics followed the same restricted path as that of his predecessors. His only published book was his *Five Lectures on Political Economy* (1844), consisting of some of his Trinity lectures; in later years, he occasionally printed some of his lectures on legal topics, the best-known being on mercantile law in 1855.

Unfortunately, the series of Lawson's lectures on value have been lost, his only published reference to them being contained in a brief appendix to his *Five Lectures*. We know enough, however, to see that Lawson was decidedly in the Trinity utility tradition, and even made a distinguished contribution to that doctrine. Thus Lawson declared that it was subjective utility and utility alone that determined the price of all goods. Lawson declared that 'It is a proposition always true, and of universal application, *that the exchangeable value of all articles depends upon their utility*, that is, upon their power to gratify the wants and wishes of man'. (Italics in original.) All other attempted explanations of value he saw as only partial. Demand and supply, for example, can only influence price by way of their effect on utility. In dealing with the effect of an increase of supply, Lawson arrived flatly and notably at the law of diminishing marginal utility. Thus, if someone's supply of a good increased,

> this will generally diminish its utility to him, or the degree in which he desires its possession, for as our particular desires are capable of being satisfied, it is obvious that we may have more of an article than we wished to use, therefore retaining the possession of that surplus is less desirable to us.

When coming to the cost-of-production theory of value, Lawson pointed out that the utility of a product, and not its cost, determines how much anyone will pay for it. While price may sometimes equal cost of production, this does not mean that cost determines the price. On the contrary, the coinciding of cost and price, Lawson added, can only come about 'through the medium of a change in supply and when this cannot be brought about, there is no such coincidence and no tendency toward it'. In that way, Lawson arrived at Stanley Jevons's newly hacked-out value position of a generation later.

In his *Five Lectures*, Lawson also developed the Whatelyan idea of economics as catallactics, as the study of exchanging man. In his first lecture, Lawson declared that economics views man 'in connection with his fellow-man, having reference solely to those relations which are the consequences of a particular act, to which his nature leads him, namely, the act of making exchange'. In his second lecture, Lawson failed to continue this line, and fell back on older discussions of political economy as the study of 'wealth'.[19]

The next holder of the Whately chair, William Neilson Hancock (1820–88), a student of Whately at Oxford, taught at Trinity from 1846 to 1851, and was also an attorney. He was a particularly scholarly lawyer, and in the last two years of his Trinity term he simultaneously held the chairs of jurisprudence and political economy at the new Queen's College, Belfast. Afterwards, Hancock was a secretary to many government commissions on land and education matters, and held posts as court clerk, ending his career as clerk of the Crown and Hanaper in Dublin. He was the principal founder of the Statistical Society of Ireland in 1847, and the Social Inquiry Society of Belfast four years later.

In contrast to the other Trinity chair holders, Hancock was interested in statistics and empirical work; he had graduated from Trinity in 1842 with a first in mathematics. He published a host of articles and pamphlets on empirical questions. Several dealt, almost inevitably, with the Irish land question, where, like Longfield and Butt but unlike Lawson, he championed the rights of the Irish tenantry and deplored the effect upon their condition of the British-imposed system of land tenure: e.g., *The Tenant-right of Ulster* (1845); *Impediments to the Prosperity of Ireland* (1850); and *Two Reports for the Irish Government on the History of the Landlord and Tenant Question in Ireland* (1859, 1866). Other pamphlets dealt with taxation and local government, in which he advocated a single tax on income, including the inheritance of wealth. A third group of articles advocated stricter control and supervision of the savings banks. Hancock's statistical work was done under the influence and guidance of Thomas Larcom, a land surveyor and statistician who filled many government posts, becoming under-secretary for Ireland in the 1850s.

While better known for applied economics, Hancock did publish a valuable theoretical work consisting of his *Introductory Lecture on Political Economy, 1848* (1849) delivered at Trinity College. He began by noting the ambiguity that had pervaded the use of the word 'value', and made clear that 'the word "price" is fortunately free from all ambiguity, and always means the exchangeable value of a commodity, estimated in the money of the country where the exchange takes place'. He proposed, then, to use the word price exclusively instead of exchange value. Price, furthermore, can change either 'from the side of things', or 'from the side of money'. Treating the former, he notes that such changes can only take place as a result of one or both of the following causes: 'either a change in the degree in which its possession is desired, or in its desirability; or a change in the force of the causes by which its supply is limited, or, in other words, by which it is made scarce'. Turning to demand, Hancock added that 'the degree in which the possession of a commodity is desired, is measured by the number of persons able and willing to purchase at each amount of price'. Hancock's utility, or quasi-marginal utility, analysis, emphasized a slightly different aspect than did that of his predecessors: namely, another aspect of what we would now call the falling demand curve. For he noted that 'it is observed that for commodities in general, their desirability increases very rapidly as their prices fall'.

On supply, Hancock again stressed limitations of supply rather than cost; and the limitations, or scarcities, of supply are dependent on the scarcities of the various factors of production. He implied that the returns to these factors is a question of their prices, and that any explanation of the prices of the factors must treat them uniformly, in accordance with the influences upon their demand and supply, i.e., 'by the application of the laws already stated with regard to other prices'.

But while Hancock was clearly in the Trinity utility tradition, we see already a falling-back, a loss of interest and a greater vagueness in the discussion of value or, indeed, of theory in general. And indeed, William Neilson Hancock was destined to be the last of the distinguished line of Irish subjective utility theorists at Trinity College.

4.7 William Forster Lloyd and utility theory in England

Just because Mountifort Longfield and the Trinity connection had no influence in England does not mean that the utility theory of value died out with such prominent economists as Bailey and Senior. Indeed, Nassau Senior's successor in the Drummond chair at Oxford was also a distinguished utility theorist. William Forster Lloyd (1794–1852) was the son of an Anglican rector from Gloucestershire. Lloyd went to Christ Church, Oxford, where he took a first in mathematics and a second in classics. Lloyd was a reader in Greek and then a lecturer in mathematics at Christ Church, and was also ordained as an Anglican minister, but never served a parish. Lloyd held the Drummond chair from 1832 to 1837, and seems to have done little at all after that. A sickly man, Lloyd retired to his county and displayed little interest in economics, in writing, or in politics before dying in middle age.

But for Lloyd as for the other Drummond and Whately chair holders, his term as professor provided him both opportunity and stimulus to compose, deliver and publish lectures in economics. His various lectures, including one delivered on value in 1833, were all published separately, and then collected and republished as *Lectures on Population, Value, Poor-Laws, and Rent* (1837).

One does not have to agree in politics to have similar views of economic theory. We have seen, for example, James Lawson's hard-core attitude against the peasantry. While William Lloyd was a utility theorist, he was far from a Whatelyan at Oxford; on the contrary, at Oxford Lloyd belonged to the high Tory circle at Christ Church that was the main counterweight to the Liberals at Oriel. Leader of the Christ Church Tories was William's elder brother, Charles Lloyd (1774–1829), who tutored future Prime Minister Sir Robert Peel at Christ Church, and soon became a close friend and adviser to Peel. At his untimely death in 1829, Charles Lloyd was Regius professor of divinity and canon of Christ Church, as well as serving as bishop of Oxford. He was widely known as 'the most influential Oxford Professor of his day'. Even though Lloyd taught and inspired many of the leaders of the future ultra-Tory, proto-Catholic Oxford movement, he himself, as well as William Lloyd, was a moderate, Peelite Tory, both theologically and politically. The influence of Peel and of his late brother Charles undoubtedly secured the Drummond chair for William Lloyd.

Most of Lloyd's lectures were devoted to his quasi-statist and paternalistic views on public policy. Of particular interest, however, was his lecture on value. There Lloyd, stumbling through the literature, thinks he discovers in the *Wealth of Nations* inspiration for a subjective theory of value. Value, Lloyd asserts, is 'a feeling of the mind'. It can be understood as belonging to a single object, he added, where the feeling reveals itself 'at the margin of separation between the satisfied and unsatisfied wants'. But value, or even utility, cannot be intrinsic to any object. Utility, points out E.R.A. Seligman of Lloyd's theory, 'is predicated of an object with reference to the wants of mankind. Ice is useful in summer, useless in winter. Still the intrinsic qualities of ice are at all times and in all places the same'.[20]

After treading what was by now familiar ground about an increase in the supply of an object diminishing and eventually satiating demand, William Lloyd suddenly arrives at a great light – a remarkably clear portrayal of the law of diminishing marginal utility. Lloyd points out:

> Let us suppose the case of a hungry man having one ounce, and only one ounce of food at his command. To him this ounce is obviously of very great importance. Suppose him now to have two ounces. These are still of great importance; but the importance of the second is not equal to that of the single ounce. In other words he would not suffer so much from parting with one of his two ounces ... as he would suffer, when he had only one ounce, by parting with that one, and retaining none. The importance of a third ounce is still less than that of the second; so likewise of a fourth, until at length, in the continual increase of the number of ounces, we come to a point when ... the appetite is entirely ... lost; with respect to a single ounce, it is a matter of indifference whether it is parted with or retained. Thus, while he is scantily supplied with food, he holds a given portion of it in great esteem, in other words, he sets a great value on it; when his supply is increased, his esteem for a given quantity is lessened, or, in other words, he sets a less value on it.

Similarly, Lloyd goes on, the utilities of different goods compared with one another and each of their values falls with increase in supply; so a good that may be more valuable than another in an absolute philosophic sense, in the sense of a class of the commodity, can be worth very little if its supply is abundant. Thus, 'Water is more wanted by a man almost dying with thirst than by another who has quenched his thirst, and desires only to wash himself. It is on want, thus estimated, that value depends'.

More specifically,

> If, to a man who has already half a dozen coats, you should offer to give another, he might probably reply that he would have no use for it. Here, however, he would speak, not of the abstract utility of the coat, but of its special utility to him under the circumstances of his want of coats being already so far supplied. This, though not quite the same thing as value, approaches very near to it. The coat would be of no use to him; therefore, were he to have it, it would not be valuable in his estimation... But this is very different from the utility of the coat in the general sense of utility...[21]

William Lloyd was also clear that value, being subjective, could not be measured. In a passage reminiscent of and going beyond Bailey, he writes trenchantly that

> It would indeed be difficult to discover any accurate test, by which to measure either the absolute utility of a single object, or the exact ratio of the comparative utilities of different objects. Still it doesn't follow, that the notion of utility has no foundation in the nature of things. It does not follow, that because a thing is incapable of measurement, therefore it has no real existence. The existence of heat was no less undeniable before thermometers were invented, than at present.

Lloyd goes on to point out, quite correctly, that value or valuation is anterior to exchange, and that such valuations also take place in the case of an isolated Robinson Crusoe economy. Unfortunately, Lloyd was so enamoured of the distinction between value and exchange, and of Smith's faulty split between use- and exchange-values, that he failed to complete the task of the theory of demand and link up marginal utility analysis with consumer demand and the determination of market pricing. Such men as Butt, Longfield, Lloyd and Bailey had hammered out many of the building blocks of the marginal utility theory of pricing and even of the marginal productivity theory of factor prices; it required the Austrians, however, to put the pieces together and set forth an integrated whole.

If Lloyd's value theory seems to have had little or no influence in England, the eminent Nassau Senior's utility theory was picked up and lauded a decade after the publication of his *Lectures*. Thomas C. Banfield (c. 1800–60), had spent many years in Germany, and in his 1844 lectures at Cambridge, Banfield brought to England the good news that economic theory on the Continent was not blighted by any Ricardian miasma; instead, he noted that a flexible form of Smithianism was dominant in Europe. In addition to basing his doctrines on Say, von Storch, and Senior, Banfield was the first English economist to refer to the marginal theorist Heinrich von Thünen, and to the advanced Smithian Friedrich von Hermann. In the preface to his lectures, published as *The Organization of Industry* (1845), Thomas Banfield pointed to the enormous changes that had been made in economic theory during the past two decades by the subjective theory of value, 'which demands of producers at least as much attention to the physical and mental improvement of their consuming fellow-citizens as to the mechanical operations' or production. Wages, he noted, will depend on the productivity of labour, i.e., 'the utility of the instrument of which a man understands the use'. In his lectures, Banfield emphasized the relativity and degree of intensity of wants as the function of economic science.

It certainly seems that economics in England, by the later 1840s, was poised for a mighty 'Austrian' breakthrough, for an integrated system elaborating the effect of human purposes and values and their interaction with the scarcity of resources. Yet something happened; and economics, poised for a great breakthrough, sank back into the slough of fallacies constituting the Ricardian system. And the important body of pre-Austrian or anti-Ricardian thought was forgotten as if it never existed, only to be resurrected either a generation later or as late as the twentieth century. How this unfortunate retrogression came about will be treated below.

4.8 A utility theorist in Kentucky

If the Trinity College contributions to subjective utility theory remained unknown outside Ireland, still more obscure was an isolated and amazing contribution in the course of several articles in a Kentucky newspaper. Written by the youngish but influential editor of the *Frankfort (Ky) Argus*, Amos Kendall (1789–1869), later to become a leading brain-truster of Andrew Jackson in his battle against fractional-reserve banking and particularly against the Bank of the United States, the articles remained unread and unknown even in the United States until exhumed by historians in the twentieth century.[22] And yet especially considering that they were written in 1820, antedating Bailey and even Craig, they were phenomenal. Not only did they champion subjective value; they were the first expression of the law of diminishing marginal utility.

Kendall was moved to explore the question of economic value by a fierce dispute in Kentucky during the catastrophic Panic of 1819 on whether or not debtors should receive relief at the hands of the state government. While Kendall was not opposed to all relief measures, he was disturbed by proposals that would have repudiated all existing debt. To explore the subject in depth, Kendall published three articles in the *Argus*, beginning on 27 April, examining the problems of money and more fundamentally, the nature of value. Unfortunately, in his autobiography, arranged and edited posthumously by his son-in-law, Kendall gives no hint on which economists might have inspired his advanced views.

In his first article, Kendall went straight to the basics and examined the question of value *per se*. He begins by saying that there have been many erroneous explanations of value: labour expended, price, even demand. But, he points out,

> All these notions are erroneous. Things have *value*, not because they are produced by labor, nor because they are in general demand, nor because they will sell or exchange for a certain number of dollars, *but simply because men desire to possess them. Desirableness is value*. In exact proportion that a thing is desirable it is valuable. (Italics in original.)

Kendall went on, in dismissing the 'value paradox', to say that water and air have little or no value because of their abundance: 'Were meat and bread as common as air and light they would possess no more value; they would not create desire.' In the Garden of Eden, land, being superabundant, possessed no value. Labour, Kendall went on, conferred no value, for:

> With regard to the produce of labor, value is generally antecedent to the labor of production. It springs from our desire to possess that which labor may produce. Were labor to fix value upon its products, everything on which much has been spent would be very valuable. This notoriously is not the fact... But labor could not make a thing valuable which was not desirable. Labor may be wasted. It may be applied to the production of that which nobody desires, which has no value.

And Kendall sparkingly concludes: 'Things do not become valuable because men spend labor upon them, but men spend their labor upon them because they are valuable.'

The demand for a product, furthermore, stems from men's desire to obtain it. The desire is primary: 'Demand is not, therefore, the cause of value... A thing becomes desirable or valuable before there is a demand for it. The demand follows... But when the desire to possess it cease, it has value no longer, and is no longer in demand.'

The next step, for Kendall, is that desires, being subjective and evanescent, cannot be measured, and that therefore neither can value:

> What standard can be invented for the desires of men? Can the necessities, the comforts, the pleasures, the fashions, the opinions, and the caprices of man be reduced to any standard? Are they not ever changing like the winds of heaven? Measure never varies. A yard is always equal to the length with which it is compared... These lengths, surfaces, and quantities never vary or change. Therefore they may be reduced to a standard which shall be uniform and last forever. But does value never vary? Will that which is now worth a dollar always be worth just the same sum?

Tastes and desires are ever-changing, and so therefore is value; hence it can have no measure or standard. Kendall then concludes his devastating critique – one that we might wish Ricardo and his epigones had read and understood:

> To make a standard of value you must first make every acre of ground, every bushel of wheat, and any given quantity of any other article, at all times, in all situations and under all circumstances, sell for precisely the same amount. There must be no such thing as profit or loss, or buying or selling.
>
> We have said enough to show the utter impossibility of a standard of value, and that to talk seriously of any such thing is simply ridiculous. We may as well talk of a standard of hunger, thirst, opinion, fashion, caprice, and all those wants ... which make things desirable.

4.9 Wages and profits

In addition to the labour theory of value, another vital cornerstone of the Ricardian system – the alleged inverse relation of wages and profits – was also riddled quickly by British economists. We have already seen the disappearance of the hard-core Malthus of the first edition of the *Essay on Population*, so necessary to the conclusions of Ricardian theory.

Even more than the explicit rejection of Malthusianism, the periodicals vehemently attacked the Ricardian view that wages and profits move inversely to each other. The *British Critic* denounced this thesis as early as October 1817, and two years later another writer zeroed in on the methodology of what would later be called the 'Ricardian Vice' with proper scorn:

> taking for granted, as usual, that money never changes in value and the proportion between the supply and demand of any given commodity never alters (which is as if the astronomer were to assume as the basis of his calculations, that all the planets stand still and that they all stand still to all eternity), he assigns a specific sum to be divided between the master and the workman, as the unalterable price of the goods which they produce; from which adaptation of hypothetical conditions, it naturally follows, that, if the workmen get more, the master-manufacturer must receive less, there being only a certain sum to divide between them.[23]

Other writers, including Malthus in 1824, made similar critiques, and also noted that, empirically, wages and profits generally increase or decrease in the same direction. Thus, John Craig pointed out that historically wages and profits moved not inversely but together: 'It is rather a startling circumstance attending this theory, that what it represents as the necessary effect produced by high wages upon profits in all branches of industry, is directly contrary to the experience in each particular trade.' Craig went on to explain that 'a new demand for a commodity at first enriched those, who, being in possession of this commodity, are enabled to raise the price; the desire to participate in their gains soon directs new capital to its production, and a rise in wages speedily ensures'.

Once again, it is not legitimate for Ricardian apologists to dismiss this critique as historical rather than analytical in nature, for empirical generalizations meant to apply directly to reality as in the Ricardian system are properly open to empirical rebuttal. Such rebuttal may challenge the conclusions as well as the more familiarly 'theoretical' procedure of challenging the realism of the theory's premises.

By the 1840s, the idea of an inverse relation between wages and profits had been completely discarded. But if the Malthusian subsistence theory did not determine wages themselves, then what *did*? Not many wandered into this unknown territory. But as early as 1821 the unknown but remarkable Scotsman John Craig emphasized that wages are determined by the supply and demand for labour, and not in any sense by the price of food. Two elements in the demand for labour were stated though not analysed in full: the 'capital from which wages are advanced to the workman', and the 'demand for the produce of his labour'. Craig, by the way, neatly demolished Adam Smith's spurious distinction between 'productive' and 'unproductive' labour. He cogently concluded that 'wealth may consist in whatever be the object of man's desire, and every employment which multiplies those objects of desire, or which adds to their property of yielding enjoyment is productive'.

The next important step in the theory of wages came from Samuel Bailey who, in the course of his definitive critique of Ricardian value theory in 1825, pointed to the crucial role of the productivity of labour in determining wages:

> the value of labour does not entirely depend on the proportion of the whole produce which is given to the labourers in exchange for their labour, but also on the productiveness of labour... The proposition, that when labour rises profits must fall, is true only when its rise is not owing to an increase in its productive powers... If the productive power of labour be augmented, that is, if the same labour produce more commodities in the same time, labour may rise in value without a fall, nay, even with a rise of profits.

One of the critical problems in developing the productivity theory of wages was the Ricardian insistence on emphasizing the alleged laws of aggregate distribution, of 'wages' as a whole and as a total share of national product and income, rather than as wage *rates* of individual units of labour. J.B. Say had presented a productivity theory of wages, but had not analysed the determination of particular wage rates in any detail. Nassau Senior, in the early 1830s, while confused on the topic of wages, came out for the productivity theory. He also managed to demolish Adam Smith's 'productive' *vs* 'unproductive' labour doctrine, stressing, as had J.B. Say, 'production' as the flow of *services*, which emanate both from material and immaterial products.

The truly revolutionary step forward in the theory of wages – indeed in the theory of all factor pricing – came with Mountifort Longfield, in his *Lectures on Political Economy*. As we have seen, Longfield was concerned to show, in contrast to the Ricardian class-conflict theory of income distribution, that workers benefit from capitalist development. (Ironically, Longfield's *laissez-faire Harmonielehre* was replaced by a far more statist attitude in later life.)