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Jevons's Applications of Utilitarian Theory to Economic Policy*

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Ι

The precise nature of W. S. Jevons's utilitarianism as a guiding rule for economic policy has yet to be investigated, and that will be the first issue treated in this paper. While J. A. Schumpeter, for instance, asserted that 'some of the most prominent exponents of marginal utility' (including Jevons), were 'convinced utilitarians', he did not investigate the further implications for Jevons's policy analysis.¹

Moreover, Jevons's writings on economic policy are strikingly similar to those of J. S. Mill, yet mostly overlooked. I shall demonstrate the remarkable degree of common ground between Jevons and Mill on policy issues, a matter formally recognized, as I shall show, by Jevons himself. It emerges that Jevons's policy writings, like those of Mill, must be understood in the context of a wide-ranging programme for social reform. Jevons and Mill shared an intense desire to correct perceived social and economic injustices, as well as a common method of weighing predicted benefits and costs in the light of their overall goal of social reform. These goals largely coincided. For both, the primary welfare problem was what Jevons termed the 'deep and almost hopeless poverty in the mass of people', a problem which was to be

- * I would like to thank Professors S. Hollander of the University of Toronto, and Craig Heinicke at the College of William and Mary, members of the History of Economic Thought Workshop at the University of Toronto, participants in the History of Economics Society 1989 annual meetings, and an anonymous referee for helpful comments at earlier stages of this research, as well as the Social Sciences and Humanities Research Council of Canada for financial support.
- 1 History of Economic Analysis, New York, 1954, p. 1056; cf. p. 408. R. D. C. Black has noted that Jevons's utilitarianism has been neglected. He argues that while the greatest happiness principle—a 'social principle'—was not important to the Theory of Political Economy (henceforth TPE), the 'principle of utility', or theory of pleasure and pain, was integral to that work. Cf. 'Jevons, Bentham and DeMorgan', Economica, xxxix (1972), 125–7, and 'William Stanley Jevons', The New Palgrave, ed. J. Eatwell, M. Milgate, and P. Newman, 3 vols., London, 1987, ii. 1012–13. J. Spengler argues, without elaboration, that Jevons's examination of the role of the state evinced empiricism and utilitarianism. See 'The Marginal Revolution and Concern with Economic Growth', History of Political Economy, iv (1972), 480–1. But in 'Jevons and his Precursors', Econometrica, xix (1951), 233–4, R. Robertson suggested that the TPE provides evidence that Jevons 'subtly rejected' Benthamite utilitarianism. In T. W. Hutchison's discussion of Jevons on policy, there is no mention of utilitarianism (On Revolutions and Progress in Economic Knowledge (henceforth On Revolutions), Cambridge, 1978, pp. 96–102).

corrected by a variety of policies designed to encourage self-improvement on the part of labourers. 'Improvement' encompassed the achievement of intellectual, moral and economic independence; intervention was justified if it forwarded this goal providing always that the (expected) costs of intervention did not outweigh the (expected) benefits of improvement.

My examination controverts the recent evaluation by T. W. Hutchison, who has argued that 'around 1870' there occurred 'a major turning-point in economic policy' linked to Jevons's theoretical innovations in economics. It is 'surely not entirely coincidental' (runs this evaluation) that the policy revolution occurred in Britain where 'central Ricardo-Mill theories of value and distribution' were being challenged by 1870. More specifically, it is the rejection of the natural —wage theory that Hutchison claims 'opened up the whole question of poverty and social reform', while 'the utility concept and the principle of diminishing marginal utility... fostered ideas about redistribution and progressive taxation in England'. An emerging concern with unemployment is also linked to the theoretical developments.

Hutchison argues further that a new 'cautious' and 'empiricist' policy stance and methodology emerged 'somewhere about 1870' (pp. 94, 95). Here he points to the abandonment of the 'sweeping application of laissez-faire principles', with Jevons envisaged as 'if not a "revolutionary", at least a transitional figure', who appreciated that the issue of intervention must be decided on a case-by-case basis, by 'empirical examination' (pp. 96, 97). In short,

It is for its magnificently eloquent, often-quoted statements of an empirical, experimental anti-apriori approach to policy questions that Jevons's *The State in Relation to Labour* is famous. Jevons indeed is a forerunner of Sir Karl Popper both in his conception of scientific method in his *Principles of Science* and consequently also in his advocacy of empirical, piecemeal social experimentation (p. 101).

The implication of this claim is that Jevons's approach to policy was fundamentally different from that of his predecessors, Jevons being

² On Revolutions, pp. 62, 97, 92–3. M. Blaug has argued that there was continuity between neoclassical and classical economic policy analysis, marginal utility theory being 'largely irrelevant' to economic policy. See 'Was There a Marginal Revolution?', History of Political Economy, iv (1972), 269, 279. I agree that there was continuity; but, as far as concerns Jevons and Mill, this must be explained in terms of a common interpretation of the utilitarian principle.

³ Elsewhere Hutchison writes that Jevons was 'fundamentally and philosophically' anti-dogmatic, having abandoned his early 'thoroughgoing free-market view' ('The Politics and Philosophy in Jevons's Political Economy', *Manchester School*, l (1982), 376). Jevons's policy analysis itself is said to have undergone a transition between 1857 and 1882. This matter I take up below. E. Paul also concludes that Jevons abandoned *laissezfaire* doctrine, but recognizes that he was close to Mill methodologically. See 'Jevons: Economic Revolutionary, Political Utilitarian', *Journal of the History of Ideas*, xl (1979), 278.

more realistically attuned than they to the needs of his country and the abilities of policy makers. In his 'later years' he is said to have

possessed a realistic insight into the nature of economic knowledge and of its application to the problems of economic policy-making which has not been equalled by any other comparable group of economists, and was certainly far superior to that of [his] Ricardian predecessors with their comparisons with Newton, Euclid and the law of physics (p. 120; see also *The Politics and Philosophy of Economics*, New York, 1981, p. 39).

While Mill's article, 'Leslie on the Land Question' (1870), was, he allows, characterized by 'less rigid, Ricardian, deductive absolutism', Hutchison asserts that this 'relativism does not otherwise figure at all strongly or prominently elsewhere in the *Principles* or in the essay on Definition and Method' (p. 63).⁴

Vincent Bladen in his account of the period also points to a decline of the laissez-faire doctrine and increased 'realism' of professional economists by 1870. Economists from Adam Smith to J. S. Mill are said to have been 'so impressed with the possibility of the automatic functioning of the economic system that they preached the doctrine of laissez-faire' reducing 'the agenda of government . . . to a minimum'; whereas there is discernible a 'collectivist trend in legislation' in the writings of professional economists by 1870—including, conspicuously, Jevons. 5 In this account, throughout the late nineteenth century economists gained a new and realistic appreciation of the complexities of the economic system, a responsible attitude towards policy analysis, and a 'diminished faith in a priori reasoning':

Economists became more careful in applying theory, valid under certain postulated conditions of great simplicity, to the problems of the real world, and more sensitive to those changes in the characteristics of the real world which undermined views of public policy which had been well founded in the conditions of an earlier time (p. 309; cf. pp. 303-8).

The increased calls for intervention, it is asserted, reflected altered economic conditions rather than developments in economic theory (p. 306).

As remarked earlier, it is my contention that Jevons and Mill shared a common method as well as a common set of value-judgements defining 'the greatest good'. Both saw a role for intervention, but one

- ⁴ This position Hutchison subsequently modified by a concession that Mill's methodological shift occurred in the last eight years of his life (rather than the five years posited in his book), and that relativism does not figure *very* (instead of 'at all') strongly ('On JSM's Defence of Ricardian Economics', Open Letter to S. Hollander, Birmingham, 1981, p. 3).
- ⁵ An Introduction to Political Economy, Toronto, 1959, pp. 302, 303. Black, too, suggests that there was a trend in social and economic policy making 'from a more individualistic to a more collectivist approach ... with public opinion coming to question the established Victorian values of self-help and independence' ('Transitions in Political Economy', Manchester Special Lectures (unpublished typescript), 1982, pp. 7, 13).

which took account of individual initiative, and aimed at encouraging 'self-reliance'. For both, utilitarianism entailed a presumption in favour of encouraging independent and responsible behaviour, and liberty constituted a key element in the utilitarian goal.⁶

The paper proceeds as follows. I outline first Jevons's conception of utilitarianism, and proceed in section III to the application of utilitarian rules to policy analysis. Section IV focuses specifically on his analysis of trade unions and co-operation, where his vision of a reformed society peopled by self-reliant labourers is most striking. The extraordinary similarity between Mill and Jevons methodologically, in the choice of policy goals, and in the analysis of specified policy issues is demonstrated in section V. Jevons's intellectual debt to Mill is investigated in section VI. Finally, I turn to the implication of my analysis concerning the relationship between theory and policy, as well as the purported policy break of 1870.

II

It is an essential feature of Jevons's utilitarian perspective that policy was not to be based on a theory of 'abstract rights'. In 1867 he offered this 'strong opinion':

no abstract principle, and no absolute rule, can guide us in determining what kinds of industrial enterprise the State should undertake, and what it should not.... Nothing but experience and argument from experience can in most cases determine whether the community will be best served by its collective state action, or by trusting to private self-interest (Methods of Social Reform and Other Papers, London, 1883, p. 278).

Jevons reiterated this argument in 'Experimental Legislation' (MSR, 1880, p. 275) and in 1882, when again he denied the existence of 'abstract rights, absolute principles, indefeasible laws, inalterable rules, or anything whatever of an eternal and inflexible nature' in social affairs (The State in Relation to Labour, (henceforth SRL), London, 1887, p. 6; cf. pp. 16, 9).

Further, from at least 1871, Jevons's approach to legislation was cautious, and appreciative of the fact that policy must take public opinion into account: 'The Government cannot always engage to teach people what is best for them, and . . . we must pay some attention to the

⁶ I agree with Hutchison's evaluation concerning Jevons's method, and policy goals. But I add to his analysis by demonstrating Jevons's utilitarianism and its near identity with that of Mill. Jevons emerges from my examination as *more* conservative and *less* willing to call for intervention than J. S. Mill. This supports Hutchison's argument that Jevons was 'cautious', but refutes his position that it was Jevons who ended the 'sweeping' adherence to *laissez-faire*.

⁷ For convenience, references to works published in *Methods of Social Reform (MSR)*, *Investigations in Currency and Finance (ICF)*, as well as *The Principles of Economics (PE)*, are referred to by the volume in which the piece was published (*MSR*, *ICF*, or *PE*), followed by the original date of publication.

most unreasoning prejudices' (The Principles of Economics and Other Papers, London, 1905, p. 223). Five years later he suggested that 'Compromise is of the very essence of legislative change, and as society becomes more diverse and complicated, compromise becomes more and more indispensable' (MSR, 1876, p. 247). And in 1880 he stressed the limitations which popular opinion placed on policy matters, so that while parliament might 'to a certain extent, guide, or at any rate restrain, the conduct of its subjects', its 'powers' were 'very limited' and 'a law which does not command the consent of the body of the people must soon be repealed . . . ' (MSR, 1880, p. 261; cf. SRL, p. 20).

In 1880 Jevons warned against (untested) wide-ranging legislative reform, this indeed being the 'main point' of 'Experimental Legislation' (MSR, p. 275). Whenever possible, legislators 'should observe the order of nature, and proceed tentatively' since major legislative interventions might entail 'catastrophic' disturbances of the orderly process of 'social growth':

Changes effected by any important Act of Parliament are like earthquakes and cataclysms, which disturb the continuous course of social growth. They effect revolutionary rather than habitual changes. Sometimes they do much good; sometimes much harm; but in any case it is hardly possible to forecast the result of a considerable catastrophic change in the social organism (p. 256).

In short, Parliament 'must give up the pretension that it can enact the creation of certain social institutions to be carried on as specified in the "hereinafter contained" clauses', being at any rate 'almost powerless' to create institutions (p. 261). Since the imposition of a 'sudden general' law was costly while affording 'no clear means of distinguishing its effects from the general resultant of social and industrial progress' (pp. 264–5), Jevons recommended that legislation be gradual and partial.⁸

In sum, legislation was 'not a science at all' but rather a matter of 'practical work, creating human institutions', akin to the craft of shipbuilding (SRL, pp. 7, 9). Sciences founded upon 'general principles of nature', such as ethics, economics, and jurisprudence, 'assist in the work of legislation' just as physical sciences 'instruct us in the making of a ship'. Jevons ascribed a complex synthesizing task to the legislator, involving 'use of any science, or of all sciences which have any bearing upon the matter' (p. 28). Legislation was to be approached in an 'all-round manner', the legislator being

neither chemist, nor physicist, nor physician, nor economist, nor moralist, but all these things in some degree, and something more as well, in the sense that he must gather to a focus the complex calculus of probabilities, the data of which are supplied by the separate investigations (p. 29).

⁸ Elsewhere Jevons argued that fenced machinery might 'palpably' prevent industrial accidents; yet the observed outcome was complicated by possible altered behaviour patterns, a moral hazard problem (SRL, p. 27).

'The greatest good of the greatest number' was the criterion for evaluating these probabilities. Against his caution, Jevons balanced a reformist attitude: 'no social transformation would be too great to be commended and attempted', provided that 'it could be clearly shown to lead to the greater happiness of the community', that is assuming 'scientific evidence of [its] practicability and good tendency' (SRL, p. 11). Thus

the State is justified in passing any law, or even in doing any single act which without ulterior consequences, adds to the sum total of happiness. Good done is sufficient justification of any act, in the absence of evidence that equal or greater evil will subsequently follow (p. 12).

The evaluation of any act of government entailed a judgment concerning 'the balance of good or evil which it produces'; this of course constituting the 'outcome of the Benthamist doctrine' (p. 17). Interpersonal and intertemporal weighing of the net balance was required: 'It is not sufficient to show by direct experiment or other incontestable evidence that an addition of happiness is made. We must also assure ourselves that there is no equivalent or greater subtraction of happiness,—a subtraction which may take effect either as regards other people or subsequent times' (p. 28). While he recognized that a policy such as a tax on matches would impose hardship upon labourers in the industry as a result of a fall in demand for their product. Jevons stressed the short run nature of this hardship, and concluded that 'It is the law of nature and the law of society that the few must yield to the good of the many' (a reference to those citizens outside the industry who benefit from the imposition of a sound tax), 'provided that there is a clear and very considerable balance of advantage to the whole community' (*PE*, 1871, p. 221).9

In principle, no group or person was to receive special treatment in the comparisons of 'happiness': the Factory Acts received high praise for being 'disinterested legislation' treating of 'the health and welfare of the people at large' (p. 52; cf. p. 53). Taxation, also, was to impinge equally upon citizens.

But what, precisely, did the notion of 'happiness' entail? Jevons suggested in the *Theory of Political Economy* that prices might be used to measure 'utility' (p. 12), but recognized the narrow focus entailed by this procedure:

It is the lowest rank of feelings which we here treat. The calculus of utility aims at supplying the ordinary wants of man at the least cost of labour. ... A higher calculus of moral right and wrong would be needed to show how he may

⁹ It is a defect of his argument, that Jevons did not raise the issue of compensation. To my knowledge the only mention of compensation occurs in A Serious Fall (1863), where he argued that since the government never decreed gold as a 'real standard of value', it was not obliged to compensate those who lost following an inflation (ICF, pp. 94-5).

best employ that wealth for the good of others as well as himself. But when that higher calculus gives no prohibition, we need the lower calculus to gain us the utmost good in matters of moral indifference (p. 27).

Insistence upon a broad perspective emerges when Jevons turned to policy as such. In *The State in Relation to Labour* he suggested that policy makers who sought general happiness must consider not only 'economic' but also 'moral', 'sanitary' and 'political' probabilities (p. 30). Thus, the evaluation of policy measures involved more than a simple-minded observation of prices.¹⁰

In a review of *Utilitarianism* published in 1879 Jevons conceded Mill's case that pleasures ranged from 'high' to 'low'. Yet he argued in opposition to Mill, that pleasures might be ranked 'high' or 'low' according to Benthamite measures of their 'length, intensity, certainty, fruitfulness, purity and extent' (to large numbers of people). A comparison of policies would then reveal which contributed most to overall happiness. Thus 'after the model of inquiry given by Bentham, [we may] resolve into its elements the effect of one action and the other upon the happiness of the community'.

But two problems remained. Even if all persons are treated the same in this comparison (and there is reason to doubt that Jevons actually adhered to this precept), it is by no means clear how to rank any two policies until a means of measuring 'intensity', 'fruitfulness', etc. for each person affected by the policy has been devised, and then a weighting scheme has been designed and justified for total pleasure, the (weighted) sum of each type of pleasure (summed across all individuals). Each (expected) outcome entailed some quantities of qualitatively different pleasures; Jevons implicitly regarded some qualities (such as length) as more important than others (such as intensity). Policies that might be expected to promote these more worthwhile types of pleasures, were, in his estimation, better than policies which did not. Thus he suggested, for instance, that the construction of a library, entailing lasting pleasure, results in 'a higher pleasure' than the establishment of a race course that creates intense, short-lived pleasure (p. 533). In short, Jevons's utilitarianism was intimately bound up with subjective judgments concerning the general

¹⁰ Jevons insisted in *TPE* that interpersonal comparisons of utility were unnecessary for his theory (p. 14). In policy analysis, comparisons were called for, although Jevons now enlarged the notion of 'utility' to encompass much more than 'the lowest rank of feeling'. He never came up with a quantitative means to measure *this* 'utility'.

¹¹ See 'John Stuart Mill's Philosophy Tested. iv. Utilitarianism', Contemporary Review, iv (1879), 533. It is my position that Jevons's differences from Mill concerning the procedures for ranking pleasures were important from a philosophical standpoint, but did not create any marked difference in policy analysis. In practice, notwithstanding the key differences on the ranking of pleasures, the policy analysis and recommendations of Mill were similar to those of Jevons. This I account for in terms of their shared goal of wide-ranging social reform.

development of society and the amelioration of working class conditions.¹²

Presumably because of this concern with the labouring classes, Jevons's writings reveal further that in fact some groups of people were weighted more heavily in the utilitarian estimate of 'happiness' than others. As I argue below, his utilitarianism must be understood in the context of a wide-ranging programme for social reform, designed with special reference to the labouring poor.

It is a second inadequacy of Jevons's procedure that he provided no mechanism to estimate consumers' pleasures when prices are not allowed as indicators of happiness. And this measurement is certainly called for, if interpersonal trade offs of happiness are required. If there is no mechanism—such as prices—for making interpersonal comparisons of utility, it is not clear how the policy maker was to maximize general happiness. Given this inadequacy, it is not surprising that in 1882 Jevons fully acknowledged estimates of 'utility' might differ: 'We cannot expect to agree in utilitarian estimates, at least without much debate. We must agree to differ, and though we are bound to argue fearlessly, it should be with the consciousness that there is room for wide and bonâ fide difference of opinion' (SRL, p. 166).

While Jevons insisted that utilitarian policy could rely upon no universal rules, he did allow a number of presumptive guidelines. In the absence of an explicit pleasure ranking system, we can infer something about Jevons's conception of the broad utilitarian aim from his policy recommendations.

It emerges from these recommendations that utilitarianism for Jevons involved first and foremost the alleviation of poverty, including its consequences, 'vice' and 'ignorance'. In the 1865 Coal Question he referred to 'the poverty', and 'ignorance, improvidence, and brutish drunkenness of our lower working classes' which he linked to rapid population growth in the face of stagnating demand for agricultural labour, and which was to be corrected by a system of general education (The Coal Question: An Inquiry Concerning the Progress of the Nation and the Probable Exhaustion of our Coal Mines, London, 1906, pp.

¹² As L. Stephen has demonstrated, this is the case also for J. S. Mill, for whom utilitarianism attempts to address the issue of 'development', altering the 'elements of happiness itself' (*The English Utilitarians*, 3 vols., London, 1900, iii. 308; cf. pp. 304f and note 35 below).

¹³ This point is reiterated by Paul, p. 283.

¹⁴ Compare L. Robbins, who criticized Jevons for suggesting that there are no general criteria for intervention: 'the net effect of his discussion, is certainly to leave the impression that all questions of practice are completely open questions, and that there are no rules of any degree of generality which social science, combined with the Utilitarian norms, may enable us to devise' (*The Evolution of Modern Economic Theory*, London, 1970, p. 187).

xlvii-xlviii). His 1870 Opening Address to the British Association for the Advancement of Science decried the results of over-population, 'the deep and almost hopeless poverty in the mass of people', and advocated policies which would enable the labourer to become self-sufficient (MSR, 1870, pp. 196, 197). In 1878 Jevons called for wide-ranging social reform to eliminate poverty: 'If the citadel of poverty and ignorance and vice is to be taken at all, it must be besieged from every point of the compass—from below, from above, from within; and no kind of aim must be neglected which will tend to secure the ultimate victory of morality and culture' (MSR, 1878, p. 2).

Since 'happiness mainly consists in unimpeded and successful energising', liberty constituted a second major component of Jevons's utilitarian goal, being envisaged as both a basic requisite to happiness, and means to achieving it—that is, 'a prime element in happiness', and also 'the necessary condition of that free development from which all our social blessings arise' (SRL, p. 5). Each 'needless check or limitation of action' was thus considered as 'so much destruction of pleasurable energy, or chance of such' (p. 13).

At the same time man is a social being, and consequently 'cannot enjoy the society of other men without constantly coming into conflict with them'; the 'mere fact of society existing obliges us to admit the necessity of laws, not designed, indeed, to limit the freedom of any one person, except so far as this limitation tends on the whole to the greater average freedom of all' (p. 14). Here interpersonal trade offs were the norm; yet since liberty ranked highly as a pleasure. Jevons was inclined to argue that 'a heavy burden of proof' was required in order to show that a liberty-reducing intervention was warranted. Although there is 'on the whole, a certain considerable probability that individuals will find out for themselves the best paths in life, and will be eventually the best citizens when left at liberty to their own course' (MSR, 1882, p. 176), if evidence reveals exceptional cases to the contrary, intervention is justified. While 'more general considerations lead us to look upon freedom as the normal state', Jevons suggested that the question of interference must be decided with reference to 'time, place, history, and national character' (SRL, p. 33).

Individual interests were in all cases to be balanced against the general good, a consideration which in 1876 is said to require 'the nicest discrimination' 'to show what the Government should do, and what it should leave to individuals to do' (*PE*, 1876, p. 206). Although

¹⁵ For further evidence of Jevons's concern with poverty and the link with overpopulation, as well as his policy recommendations to alleviate these problems, see S. Peart, 'The Population Mechanism in W. S. Jevons's Applied Economics', *Manchester School*, lviii (1990), 46–9. 'The Rationale of Free Public Libraries' reveals a continuing interest in the alleviation of poverty (*MSR*, 1880).

he was always willing to concede the exceptional case to the contrary. Jevons retained a presumption in favour of private provision of services throughout his career. 16 In 1867 his 'strong opinion' was that while the public provision of some services, yields 'most indisputable advantages', 'private commercial enterprise and responsibility have still more unquestionable advantages' (MSR, p. 278). In 1875 he argued that 'free trade and free competition both of employers and workmen is the true thing' (Papers and Correspondence of William Stanley Jevons, ed. R. D. Collison Black, 7 vols., London, 1972-81, vi. 79). Four years later he reiterated that the 'presumption is always against a State department', although 'in any particular kind of work there may be special conditions which render the unity and monopoly of Government control desirable and profitable (MSR, 1879, p. 338). He suggested in 1882 that 'the present social arrangements have the considerable presumption in their favour that they can at least exist, and they can be tolerated' (SRL, p. 12). Thus a 'heavy burden of proof' was placed upon the 'advocate of social change which has not or cannot be tested previously on a small scale'. And, as we will see below, the specific reforms that Jevons advocated placed emphasis upon private provision, as well as local control, of the proposed services.

III

Jevons's major works on economic policy, The State in Relation to Labour, and Methods of Social Reform, reveal his concern with ameliorating working class conditions. Throughout we find evidence of a wide-ranging reform programme designed to encourage self-improvement on the part of the labouring classes.

The presumption in favour of liberty is evident throughout Jevons's analysis of trade unions. Here he argued that 'anything... which tends to interfere with the exercise by any person of the utmost amount of skill of which he is capable, is primâ facie opposed to the interests of the community' (SRL, p. 99); but he conceded that there may be 'counterbalancing advantages', in which case the trade union might be sanctioned, provided it be 'fully justified and carefully regulated by the State' to ensure that its 'raison d'être must be the good of the people outside, not of the privileged few inside the monopoly'. Failing this, it should 'be either reformed or destroyed'.

The State might also justifiably restrict liberty when 'the expert is a

¹⁶ Compare Paul, who has argued that Jevons's exhortations concerning *laissez-faire* amounted to 'empty and formalistic obeisance', whose effect was 'rendered nugatory' (p. 278; cf. p. 283), and also that Jevons was less individualistic than Mill and stripped Utilitarianism of a 'presumption in favor of liberty' (pp. 279–80).

far better judge than the individual purchaser', and 'ignorant people cannot take precautions against dangers of which they are ignorant', a case described in 1882:

While it is a fact that people live in badly-drained houses, drink sewage water, purchase bad meat or adulterated groceries, it is of no use urging that their interests would lead them not to do so. The fact demolishes any amount of presumption and argument (pp. 42-3).

More strongly, such action is said actually to give effect to people's desires, and thereby to ensure the existence of liberty: the 'Government officer who steps in and prevents the faulty article from being exposed to sale does not really restrict the liberty of the purchaser ... [but] actually assists the purchaser in carrying out his own desires' (p. 43). On similar grounds Jevons recommended that mothers of young children be restricted from working in factories, a policy which is said to ensure that the interests and liberty of children were protected (MSR, 1882, pp. 156–79).

Jevons praised the 1834 Poor Law for its emphasis on local control of poor law policy, and called for the creation of 'a strong executive commission framed somewhat on the lines of the Poor Law Commission' to authorize and supervise plans 'proposed by local authorities' in the Liquor Trade; successful plans would 'by degrees' be adopted in other locales (MSR, 1880, p. 271). This method is said to have been used in 'all the more successful legislative and administrative reforms of later years' (p. 266), including incremental steps towards regulating factory hours. The issue was 'not to be decided once for all on some supposed principle of liberty', because 'where a large number of men are employed together in a factory there is not the same individual liberty' (SRL, p. 65). The 1878 Factory Act thus received praise for 'the several more tentative acts by which this was preceded' as well as 'the thorough inquiries of the Factory Act Commissioners of 1875' (p. 52).

But Jevons supplemented this endorsement of incrementalism (and careful inquiry), and recommended experimental legislation in the punishment of debtors, sanitary regulations, and the London Water Supply (MSR, 1880, pp. 265, 273f).¹⁷

In Jevons's treatment of taxation we find evidence of his desire to make a (synthetical) utilitarian estimate of the benefits and costs of specific taxes in order to impose 'theoretically' sound taxes (*PE*, 1871, p. 211). The 1875 lecture on taxation outlined 'four ["classical"] maxims of taxation which Adam Smith laid down as the qualities

¹⁷ In W. Mays' evaluation: 'Whenever possible, Jevons believes, legislation should observe the order of nature and proceed tentatively', a type of experimentation which resembles 'that involved in habit-learning'. See 'Jevons's Conception of Scientific Method', *Manchester School*, xxx (1962), 243.

proper in a tax' (Papers and Correspondence, vi. 135).¹⁸ The first, proportionate taxation, was said to be 'a doubtful proposition theoretically' requiring examination 'from many sides'. Since proportionate taxation 'only bears a very small real proportion to [the rich man's] total income compared with the proportion which the poor man's taxation bears to his', it imposed relatively more suffering on the poor than the rich and was not 'fair'.¹⁹

Jevons raised several objections, however, to progressive taxation. He argued, first, that if the poor were exempt from taxation a situation would result where 99% of the population taxed the 100th% (p. 136).²⁰ Secondly, relatively high tax rates on the rich were said to create adverse incentive effects for capital accumulation with a negative impact on the rate of 'progress'. On balance Smith's proportionate scheme was most reasonable. Most interesting and subtle, exemption and proportionate taxation were regarded as means of inculcating responsibility among citizens. No class other than those who were 'actually paupers' was to be exempt from taxation, and taxation was to be 'coincident with representation':

We must carefully guard against imposing upon the very poor any charge disproportionate to their income, and from those who are actually paupers we cannot really take anything. But if representation is to be coincident with taxation, then taxation must be coincident with representation. We may strive privately to alleviate the extreme differences between the incomes of the poor and the rich, but to allow any exemption from the duties and responsibilities of citizenship would be a concession ultimately fatal to the welfare of all (*PE*, 1871, p. 239).

Jevons evaluated a broad range of policies in the light of their perceived abilities to improve the 'general low tone' of the labouring classes. The notion that education was of paramount importance to the economic and intellectual independence of the working classes, and a necessary preliminary to resolution of problems associated with overpopulation, prompted him to call for its public provision.²¹

Once the 'education question was put in a way of fair solution', Jevons enlarged his vision of education to entail a remarkably broad

¹⁸ These are equality, certainty, convenience, and economy. While Jevons's debt to Smith is here formally acknowledged, he was clearly working within the same framework as Mill. See *Principles of Political Economy*, ed. J. M. Robson, 2 vols., Toronto, 1965 (*Collected Works of John Stuart Mill*, vols. ii and iii), iii. 805.

¹⁹ The argument relied upon diminishing marginal utility of income: 'The general idea ... was that 10 [pounds] was of more importance to a man whose income was only 100 a year than 100 would be to a man whose income is 1,000; and of vastly more importance than 1,000 would be to a man whose income was 10,000 a year'.

²⁰ Exemption, however, is really a separate logical issue.

²¹ See Jevons's remarks of 3 Nov. 1866: 'I hope to see every child educated, and every exception to the equality of classes before the laws of justice removed' (*Papers and Correspondence of William Stanley Jevons*, iii. 138). For further evidence, see Peart, pp. 46f.

programme of cultural activity (MSR, 1878, p. 26). Since the 'vulgarity' of the working classes was due in part to the suppression of amusements 'by a dominant aristocracy', improvement of 'the low state of musical education' was a means to 'a higher civilization' (pp. 6, 7, 11). He recommended the provision of outdoor concerts by volunteer and unpaid musicians, it being the duty of the upper classes to frequent the concerts in order to spread their popularity (pp. 13, 24). This would result in an 'enormous increase of utility ... acquired for the community at a trifling cost' (pp. 28-9); minimal state interference, and local variation, were involved. Public libraries, also, were recommended as a low-cost means of broadening the education of the working classes, provided they entailed local direction and a minimum of government agency (1881, pp. 28-52). And Jevons objected to large public museums on the grounds that they were an ineffective educative tool; he regarded local collections of geological artefacts as more effective (1881-2, pp. 55-6, 62).

IV

M. White has argued that Jevons's work on labour issues was designed to support the status quo. The evidence given below relating to the analyses of trade unions and co-operation reinforces the notion that Jevons favoured incremental social change.²²

Confining the analysis within a partial-equilibrium setting, Jevons argued in 1868 and 1882 that labour supply restrictions within particular trades resulted in artificially high wages and prices in the affected industries: 'Each trade which maintains a strict union' endeavours 'to secure an unfair share of the public expenditures' (SRL, p. 106; cf. MSR, 1868, pp. 111–12). This 'private taxation' was said to be borne by consumers, who were, for the most part, labourers (pp. 104, 106).²³ Further, since those 'who most need combination to better their fortunes are just those who are the least able to carry it out', unions exacerbated distributive injustices. Jevons concluded

Though workmen, in respect of belonging to the same social class, may try to persuade themselves that their interests are identical, this is not really the case. They are and must be competitors, and every rise of wages which one body secures by more exclusive combination represents a certain amount, sometimes a large amount, of injury to the other bodies of workmen . . . success

²²·On this matter see M. White, 'The Restoration of "Supply and Demand': The Production of Jevons's Theory of Political Economy', Paper presented at the 11th Conference of Economists, Flinders University of South Australia (1982), p. 37, and Black, 'Jevons' in *The New Palgrave*, ii. 1013.

²³ Labour supply restrictions in the building trades were 'particularly injurious', since 'The general effect is to make really wholesome houses a luxury for the wealthier classes, while the residuum have to herd together between whatever walls they can find' (SRL, pp. 104–5).

in maintaining exclusive monopolies leads to great loss and injury to the community in general (p. 104).

Trade unions also created technical inefficiencies, since workers resisted the introduction of cost-reducing innovations (MSR, 1870, p. 126).²⁴

Notwithstanding his disapproval of restrictive union attempts to raise wages, Jevons allowed in 1868 that trade unions performed an educative function: 'some kind of association' being 'indispensable to the progress and amelioration of the largest and in some respects the most important class of our population', and 'one of the best proofs of the innate capacity for self-government which I believe we all possess' (MSR, 1868, pp. 102, 103; cf. MSR, 1870, p. 123). Unions were also said to enable the labourer to guard his 'health, convenience, comfort, and safety' (p. 108).

Because trade unionism encouraged self-reliant behaviour, and since experience revealed that legislation to restrict trade union activity would 'suppress with much evil many germs of good', Jevons recommended in 1882 that the legislature 'finally' relinquish 'its jealousy of associative action' (SRL, pp. 109, 114–15). He insisted, however, that the 'imperative needs' of society be met, and favoured the establishment of an authority to ensure that 'in the last resort' duties such as the stoking of gas retorts be performed in the event of a strike. Finally, Jevons favoured voluntary union membership.

But all this was second best. As a solution to the labour problem Jevons preferred 'one more useful and beneficial form of organisation', which he referred to interchangeably as co-operation and partnership (MSR, 1870, pp. 122–3), an arrangement whereby labourers would contribute 'on a small scale' to the 'sinking fund', and receive their usual wage payments as well as some share of profits. (Profits in this context are treated as a return to investment, plus a residual which varies from year to year depending on the realized output price.)²⁶

In 1866 Jevons wrote an impassioned plea to the *Manchester City News*:

I hope to see the time when workmen will be to a great extent their own capitalists. . . . I believe that a movement of workmen towards co-operation in the raising of capital would be anticipated by employers admitting their men to a considerable share of their profits (*Papers and Correspondence*, iii. 138).

On only two occasions did Jevons look at the general case, and he concluded that general wage increases were unattainable. See MSR (1868), pp. 113-14, and SRL, p. 106.

²⁵ This was a reluctant endorsement. Jevons insisted throughout his career that all labourers (including unions) should recognize that their interests were aligned with producers, and never endorsed union attempts to raise wages.

²⁶ There are problems reconciling the formulation with Jevons's *TPE*. See H. Stewart, 'Jevons on Profit-Sharing: Atomistic Theory versus Social Policy', Paper presented to the HES annual meetings, Charlottesville, 1989.

Co-operation, which divided the produce of labour 'as it has always been recognized by political economists—the wages of labour, the interest of capital, the wages of superintendence, the compensation for risk in the sinking fund, and the extra profits of successful years', is said to implement 'the great vivifying principle of political economy that reward should be in proportion to desert'. 27 Its advantages are said to include the increased 'diligence' of workers as a result of their interest in the enterprise, a decline of discontent among the labourers who share in the enterprise's concerns, increased savings of labourers, fewer strikes and the decline of the notion that incomes should be equal (ibid., 153). In 1870, Jevons reiterated that partnership would 'efface in some degree the line which now divides employers and employed' (MSR, 1870, p. 148). Again he anticipated increased efficiency since workers would gain a 'direct interest in the work done'. There would also be a role for competition, an 'honourable rivalry' among firms (p. 142).

Most importantly, partnership would correct the 'one great defect of character' of the working class—'the want of thrift and providence' (pp. 144, 145). Labourers who received a lump sum bonus in yearly dividends would begin 'to look beyond the week' and become independent; thus co-operation would stimulate self-reliant behaviour and 'millions may be ultimately raised above the chance of pauperism' (pp. 146, 148). 'It is only in becoming small capitalists', Jevons wrote, 'that the working-classes will acquire the real independence from misfortune, which is their true and legitimate rule' (p. 146).²⁸

In 1882 Jevons specified his notion of partnership more fully. Here he described a system involving payment of 'subsistence' weekly wages 'to enable the labourer and his family to await the completion of the interval between manufacture and sale', and in addition, a 'share of all surplus profits' (*SRL*, pp. 142, 143).²⁹ Again he stressed that this arrangement would reduce industrial strife (p. 145).

It is significant that there is little distinction between partnership and co-operation in Jevons's 1866 work; and apparently in consequence of perceived wealth constraints precluding workers from gathering the requisite capital together, from 1870 he favoured industrial partnership which in 1875 he defined as the 'truest form of co-operation' (Papers and Correspondence, vi. 77; cf. iii. 153; MSR, 1870, p.

²⁷ Letter to *The Times*, 19 Jan. 1867, *Papers and Correspondence*, iii. 152. This is the justification of 'all the laws of property, and . . . their only sufficient warrant' (p. 152; cf. p. 132).

²⁸ Partnership would lead to 'peace', 'steady, zealous work', mutual 'confidence and esteem', and less 'drunkenness', 'fighting', 'swearing', and 'gambling' (p. 130).

²⁹ Jevons also considered the alternatives of conciliation and arbitration here and argued in favour of arbitration for settlement of past disputes, and conciliation for disputes concerning the 'future rate of wages' (SRL, pp. 145, 152).

141). He did not proceed as far in this matter as Mill, who distinguished carefully between partnership and co-operation, and preferred the latter.

With the foregoing in mind we can turn to White's evaluation that despite his criticism of the wage-fund theory, Jevons arrived at its 'most doctrinaire' conclusions reinforcing 'iron laws' of income distribution. This interpretation is unconvincing, though Jevons did maintain that the achievement of a general wage increase through union activity was not feasible. Apart from his recognition that union activity could alter the distribution of income across trades by altering the structure of wages, there is the fundamentally important role accorded partnership and co-operation, which, by enabling labourers to become ('small') capitalists, could most certainly alter the distribution of income, and allow labourers to become self-reliant. Modification of existing institutions constituted a powerful means of social reform.

V

In his *Essay* on method Mill stressed, as Jevons was later to do, that the policy analyst must synthesize the scientific knowledge of many disciplines:

He must analyze the existing state of society into its elements, not dropping and losing any of them by the way. After referring to the experience of individual man to learn the law of each of these elements... and how much of the effect follows from so much of the cause when not counteracted by any other cause, there remains an operation of synthesis; to put all the effects together... to collect what would be the effect of all the causes acting at once (CW, iv. 336).

Since these operations are 'performed only with a certain approximation to correctness', the synthesis is tentative: 'mankind can never predict with absolute certainty, but only with a less or greater degree of probability'.

Mill argued that legislation was not itself a science, although it relied upon a number of scientific endeavours: 'Legislation is making laws. We do not talk of the science of making anything' (p. 321). In the 'art' of legislation, he insisted that rules and exceptions were normal, there being no universally valid policy prescriptions: 'If, in the majority of cases ["a certain thing"] is fit to be done, that is made the rule. When a case subsequently occurs in which the thing ought not to be done, an entirely new leaf is turned over' (p. 339). In this respect, Jevons's method was entirely at one with Mill's.

³⁰ All references in the text to Mill's work are from the Collected Works of John Stuart Mill, ed. J. M. Robson, Toronto, vols. i-v, x, xiv, xviii and xix; they include CW, the volume number, and page.

'Practical' and experiential knowledge—'extensive personal experience'—was, for Mill, indispensable to the legislator (p. 333). In the 1851 'London Water Supply', he reiterated that the imposition of any particular policy involved 'matters of fact' and not 'principle' (CW, v. 437). Further, he fully appreciated the difficulties which Jevons later stressed, of designing experiments and interpreting evidence, and he cautioned against wide-ranging inference based upon observation. Thus the experience of one country could not be applied to another in a simple-minded fashion, and legislators could not infer that institutions which suited English 'opinions, feelings, and historical antecedents', suited Ireland (CW, vi. 511–12; cf. iv. 328–9). Because of the problems associated with multiple causation, observations required careful interpretation (CW, iv. 328–9; ii. 145).

Notwithstanding these difficulties, Mill wrote enthusiastically about experimental attempts to evaluate the relative merits of various forms of social organization, and argued in *Principles of Political Economy* that these experiments should be actively 'encouraged': 'Every [1848: Socialism, Communism, every] theory of social improvement, the worth of which is capable of being brought to an experimental test, should be permitted, and even encouraged, to submit itself to that test' (CW, iii. 903). The passages on European Associations in the 1852 edition provide further evidence of this appreciation of 'noble' social experiments (cf. pp. 769–91; 903–4).³² The Chapters on Socialism also called for trials on an 'experimental scale' (CW, v. 736). In this appreciation of experiential method, we have seen, Mill anticipated Jevons.

For Mill, the unifying principle of public policy was, of course, the greatest good of the greatest number, but he was much concerned with the precise nature of the general rule. After his self-described emotional crisis, he reformulated the goal, rejecting what he originally (mistakenly) perceived to be Bentham's excessively narrow definition (cf. CW, i. 99–100).³³ Because he stressed man's spiritual nature, he argued that material gain was not the ultimate goal for society. A moral tone, and a wide notion of 'improvement', were therefore integrated into the utilitarian goal; 'utility', he maintained, constitutes

³¹ Jevons criticized Mill's calls for 'a vast revolution in the land-owning of Ireland', and favoured a 'small progressive experiment' instead—a position which supports my contention that Jevons was prone to be less interventionist than Mill (see note 6 above). In 1882 Jevons favoured the Irish Land Act; see *SRL*, p. 8.

³² See the remarks from Essays on Economics and Society, ed. J. M. Robson, 2 vols., Toronto, 1967 (CW, vols. iv and v), v. 618: 'Since trial alone can decide whether any particular experiment is successful, latitude should be given for carrying c1 the experiment until the trial is complete.'

³³ For a full discussion of Mill's vacillations regarding utility, see S. Hollander, *The Economics of John Stuart Mill*, Oxford, 1985, pp. 602f. The author demonstrates that Mill's utilitarian position, according a prominent role to individual liberty, was in fact consistent with Bentham's original position.

'the ultimate source of moral obligations' (CW, x. 226). This perspective had major implications for economic policy, which at the least, Mill argued, was to suit, and at best might improve, the moral character of the public. Thus Mill occasionally questioned the effectiveness of institutional reforms which did not aim at moral improvement and would consequently not achieve lasting effects.³⁴

The greatest-happiness notion remained nonetheless problematic, since Mill was never able to provide a clear cut means of ranking, or evaluating, pleasures. In *Utilitarianism*, he resorted to 'competent judges' who were to perform the difficult task of 'valuing' the quality of pleasures (CW, x. 213; cf. pp. 211–12). Just as Jevons allowed that we 'might not agree on our utilitarian estimates', so, also, Mill realized that even competent judges might not agree on the ranking.

Since for Mill as well as Jevons the moral, economic and intellectual independence of each, is integral to 'happiness', he placed conspicuous emphasis on 'liberty' as a component in the utilitarian goal. This is a carefully specified liberty pertaining to 'self-regarding' actions, and is regarded as a human need, requisite to attaining happiness: 'Where, not the person's own character, but the traditions or customs of other people are the rule of conduct, there is wanting one of the principal ingredients of human happiness; and quite the chief ingredient of individual and social progress.' Mill stressed that specific reforms should be encouraged but not imposed, and preferred local to central control of reforms on the grounds that this preserved liberty; his praise for the Poor Law ran along precisely these lines. In these respects, he was at one with Jevons.

On Liberty provides the methodological framework for approaching specific economic policies. In instances of 'social acts', there was no doubt that intervention, affecting 'that part of conduct which society is competent to restrain', was admissible (CW, xviii. 293; cf. iii. 803-4). Each instance required examination to determine whether intervention was warranted; if unimpeded action led to undesirable results, this behaviour could be restricted. Mill argued that laws preventing fraud,

³⁴ See Mill, *The Later Letters 1849–1873*, ed. F. E. Mineka and D. N. Lindley, Toronto, 4 vols., Toronto, 1972 (CW, vols. xiv-xvii), xiv. 45, and Essays on Economics, CW, iv. 375.

³⁵ The moralist like Mill who attempts to allow for (and encourage) human improvement, may not accept that pleasures which attract more people are those which should be ranked most highly. Consequently Mill sought an alternative means of ranking pleasures. See Stephen, iii. 304f. This problem also plagued Jevons.

³⁶ Essays on Ethics, Religion and Society, ed. by J. M. Robson, Toronto, 2 vols., 1977 (CW, vols. xviii and xix), xviii. 261. See the discussion in J. M. Robson: '... Mill argues that social ends cannot be understood, much less achieved, except by individuals'; the individual 'must be free to choose his own destiny in the light of his moral views—consideration always being given to the happiness and equal development of others' (The Improvement of Mankind, Toronto, 1968, p. 127; cf. pp. 124-7).

³⁷ Essays on Ethics, CW, xix. 606-7. Thus for example, State-funded education should be available to all, but not compulsory. See The Later Letters, CW, xiv. 89.

and sanitary and safety regulations, were justified on this basis (pp. 292-3; cf. x. 197-8). Trade itself was a 'social act' falling 'within the jurisdiction of society'. If free trade did not ensure cheap and good quality products, intervention was required. Jevons's position on this justification for intervention was fully anticipated by Mill.

Mill argued for intervention in cases where forces distorted competition (as in, for example, the Endowments question) (CW, v. 625; cf. 433, vi. 502). Monopoly rights granted by the State should also be regulated—a justification which we have seen Jevons relied upon in his analysis of the trade union. In the face of a conflict of interests in society, there might be further scope for intervention. Most important is the provision of educational services, Mill arguing that, since the interests of parents clashed potentially with those of children, intervention was justified—an argument which Jevons extended to restrictive legislation regarding working mothers.

Mill also urged the public provision of special services, which would not be 'adequately' supplied by competitive forces: 'anything which it is desirable should be done for the general interests of mankind or of future generations', 'but which is not of a nature to remunerate individuals or associations for undertaking it' being deemed 'a suitable thing to be undertaken by the government' (CW, iii. 970). Jevons also, we have seen, urged the provision of public services (such as libraries) based upon a similar justification.

In the general conception of the utilitarian goal, Mill anticipated Jevons. But what of Mill's analysis of trade unions? Since Jevons was highly critical of the wage-fund and inverse wage-profit theories, one might expect their positions on trade unions to differ. In fact, they do not, and this requires explanation.

In Thornton on Labour and Its Claims (1869), Mill referred to 'a view of the question of wage increases', reportedly a 'common opinion' that wage increases might be financed by increased prices (CW, v. 660). While acknowledging that 'in single trades' a wage increase would be followed by an increased price, Mill insisted, following Ricardian principles, that an across-the-board increase would leave the level of prices unaffected: 'though a rise of wages in a given trade may be compensated to the masters by a rise of the price of their commodity, a rise of general wages cannot be compensated to employers generally by a general rise of prices' (pp. 600–1; cf. p. 661).³⁸

But the partial case was the only one of practical significance. There a rise would be 'a gain made, wholly or in part, at the expense of the

³⁸ 'A rise of wages, thus confined to particular employments, is not (like a rise of general wages) defrayed from profits, but raises the value and price of the particular article, and falls on the consumer' (*Principles, CW*, iii. 930).

remainder of the labouring classes'. Consequently, for Mill unionization entailed a 'serious question of right and wrong, as between Unionists and the remainder of the labouring classes' (p. 662). While labourers had 'no obligations but those of prudence' towards their employers, who at any rate were 'quite capable of taking care of themselves', they did 'owe moral duties to the remainder of the labouring classes' and 'to the community at large'. This is precisely Jevons's position. To this Mill added the censure that Jevons later raised: unions created inefficiencies by resisting technological innovations (p. 665).

Restrictive trade unions were, however, justified in the face of overwhelming population growth on the part of unskilled workers:

if the present state of the general habits of the people were to remain for ever unimproved, these partial combinations, in so far as they do succeed in keeping up the wages of any trade by limiting its numbers might be looked upon as simply intrenching round a particular spot against the inroads of overpopulation, and making their wages depend upon their own rate of increase, instead of depending on that of a more reckless and improvident class than themselves (CW, ii. 397).³⁹

Further, the attainment of high general wages should 'be welcomed and rejoiced at' (CW, iii. 929; cf. p. 930). Most importantly, 'the right of making the attempt' to raise wages was a matter of justice, and not to be denied. In short, 'the improvement and elevation of the working classes' through 'the liberty of association' was championed (p. 903). Like Jevons, however, Mill insisted that unions be voluntary.

Yet Mill favoured an alternative to capitalism, which would properly reward personal initiative, encourage the achievement of independence by labourers, and reduce class conflict (CW, ii. 207). Co-operation, the ownership of enterprises with labourers working under managers 'elected and removable by themselves', was said to put an end to the dependence of labourers, making them 'in some sort, a partner' in the enterprise (CW, iv. 382). Mill anticipated efficiency advantages of co-operation, since workers would gain a direct interest in the productive process, creating a 'vast stimulous to productive energies' (CW, iii. 792). And like Jevons, Mill argued that co-operation

³⁹ Mill however, foresaw a time when, population growth having declined, this restriction would no longer be necessary. Once he perceived a lessening of the pressure of population growth, he became more reluctant to endorse the union's restriction of labour supply. See the account in Hollander, *The Economics of Mill*, pp. 897f. For evidence that Jevons shared these concerns, see below.

⁴⁰ Mill wanted equal opportunities, and reward according to initiative; he objected to the division of the produce only slightly connected 'with merit and demerit, or even with exertion and want of exertion in the individual' (Essays on Economics, CW, v. 444; cf. Principles, CW, iii. 769). But see P. Schwartz, The New Political Economy of J. S. Mill, London, 1972, p. 197.

offered due reward for abilities and exertions, and yet promised the end of the clash of interests between employers and employed (p. 768; cf. CW, iv. 382).

Mill insisted that co-operative ventures be voluntary and practicable. In 1848 and 1849, when partnership laws made true co-operation difficult to attain, he focused on profit-sharing and partnership as practical means of reform, 'obtaining the benefits of co-operation, without constituting the numerical majority of the co-operators an inferior caste' (CW, iii. 1013; cf. p. 1007; iv. 385–6). These were second best, however, to true co-operation which would, in contrast to Jevons's recommendation, entirely (not 'in some degree'), efface the capital-labour distinction. There is, then, some merit to White's evaluation if we understand his claim to signify that Jevons was less radical than Mill.⁴¹

Jevons's analysis of taxation added the explicit theoretical notion of diminishing marginal utility to Mill's analysis of this issue. For while Mill allowed that proportionate taxation imposed a burden on the poor 'incommensurable' with that of the rich, this was envisaged as a contrast between the very poor and the rest of the population (CW, iii. 809). In his mind the key distinction was between incomes that enabled the consumption of only necessaries—the taxation of which imposed an unjustifiably large burden—and incomes that yielded a surplus spent on luxuries. The distinction between 'comforts' and 'luxuries' was not granted (cf. CW, xv. 976). There is, however, evidence that Mill favoured redistributive policies based on a version of the principle of diminishing marginal utility.⁴²

It must be recalled, too, that for Jevons diminishing marginal utility considerations were overruled by classical concerns as an argument for progression. Mill shared these concerns; on humanitarian grounds he called for exemption of a minimum income (CW, iii. 831), and argued that taxing high (earned) incomes progressively would punish initiative and create incentives problems (p. 810).⁴³ He also allowed that unearned income might be taxed progressively, with no adverse incentives effects (pp. 819–20), a point which Jevons did not address.

⁴¹ See above, note 6. Mill went beyond Jevons also in recommending compensation for losses incurred due to intervention. For evidence that the utility principle entailed some right to compensation, see *Principles*, *CW*, ii. 233.

⁴² See *Principles*, CW, ii. 225–6, and Hollander, The Economics of Mill, pp. 880–1. This is further evidence that Mill went beyond Jevons.

⁴³ Income was to be taxed 'only in proportion to the surplus by which they exceed the limit'—allowing some amount of progression (*Principles, CW*, iii. 831).

VI

I have demarcated a remarkable similarity between the policy analyses of Mill and Jevons. My final task now is to ascertain whether Jevons appreciated and acknowledged this near identity with Mill.

Jevons's earliest remarks concerning Mill's theory of public policy reveal a deep appreciation for Mill's notion of liberty. In 1866 he wrote, 'For my part I wish to see cherished and developed in England such liberalism as Mr. Mill has deliberately described in his brief but great essay on liberty' (to the *Manchester Examiner and Times*, 22 Oct. *Papers and Correspondence*, iii. 132). His lecture delivered at Owens College the same year, on 'The Importance of Diffusing a Knowledge of Political Economy', reiterated that

By liberty I do not mean merely what is vulgarly regarded as liberty by many, the privilege to vote for a representative in Parliament. I mean what Mr. Mill upholds as true liberty, in that noble essay which is perhaps the best of his great works (ibid., vii. 42).

Jevons also recognized Mill's precedence regarding the criteria for the provision of public services. In the 1875 Lectures this is said to involve in each case 'Mill's result', a comparison of relative public and private advantages. Jevons reiterated Mill's distinction between 'necessary and optional' functions of government, the latter being provided when 'the public utility of these things is exceedingly obvious and when it is plain that they can be more cheaply and effectively done by a single agency'. In short,

The truth on this subject I should say is that there is no general principle, except that of adding up the comparative advantages in each particular case, ie. you must make the best observation you can of the results of experiments one way or the other.

The Manchester Omnibus Company ought to be in the hands of the local government.

What I have stated is Mill's result (ibid., vi. 133).

In 1882 Jevons cited Mill's remarks from the *Principles* in a passage which is enlightening, since it reveals agreement with Mill's recommendations that labourers recognize their common interests, and also a common concern about the population issue:

J. S. Mill, after expressing some opinions in which I cannot coincide, has added the following striking passage, which cannot be too much read: '... partial combinations... might be looked upon as simply intrenching round a particular spot against the inroads of overpopulation, and making their wages depend upon their own rate of increase, instead of depending on that of a more reckless and improvident class than themselves. The time, however, is past when the friends of human improvement can look with complacency on the attempts of small sections of the community, whether belonging to the labouring or any

other class, to organize a separate class interest in antagonism to the general body of labourers' (SRL, pp. 108-9).⁴⁴

Throughout his career Jevons relied on Mill's authority in the discussion of co-operation. In the 1866 plea for partnership Jevons added his 'small voice to that of men like Mr. Mill' (Papers and Correspondence, iii. 138). An 1867 letter published in The Times suggested that co-operation was 'neither in principle nor in practice' 'really new', since 'J. S. Mill, in advocating [it] many years ago, ... pointed out many instances where labourers share results' (p. 153). The 1870 lecture 'On Industrial Partnerships', referred to passages in Mill's Principles on co-operation. And in 1882 Jevons acknowledged again that 'the outlines of the scheme are familiar to all who have read with proper care John Stuart Mill's Principles of Political Economy' (SRL, p. 143).

At the same time, Jevons was highly critical of *Utilitarianism*; in the 1879 review he argued that Mill had 'left the grounds of Paley and Bentham' and 'thrown ethical philosophy into confusion'. The primary objection was that while pleasures differed qualitatively as Mill maintained, Mill had not arrived at the means of ranking pleasures. His notion of 'competent judges' was akin to 'a packed jury', whose ranking would amount to the 'verdict which would be given by vegetarians in favour of a vegetable diet'. Jevons concluded that 'Mill's attempt to reconcile his ideas on the subject with the Utilitarian theory hopelessly fails' (pp. 532-3).

The trouble is that Jevons himself failed to resolve the problems associated with ranking pleasures. It is the case that policy analysis, for Jevons (and this is also true of Mill), entailed inevitable subjective value judgments concerning the nature of the 'pleasures' associated with particular policies. A Free Library is a worthwhile policy because it leads to responsible educated behaviour which is judged to be a 'better' outcome than the Race Track result of short term pleasure with few educational benefits. Mill and Jevons agreed in their policy recommendations because they happened to share similar visions of a reformed society—whose citizens were intellectually as well as economically independent—and thus broadly speaking in their evaluation of 'pleasures'.

⁴⁴ Jevons did not specify the 'opinions' of Mill he contested.

⁴⁵ 'Mill's Philosophy Tested', pp. 523, 525. Jevons argued in opposition to Mill, that the Library was a better policy than the race track, 'not because there is a "Free-Library building emotion", which is essentially, better than a "Race-Course-establishing emotion", but because, having analyzed the effects of each policy in terms of the types of pleasure created, the policy maker finds that the Library creates the most pleasure.

⁴⁶ See Robbins for the argument that all recommendations of policy entail 'judgments of value' and 'conventions' which facilitate interpersonal comparability ('Economics and Political Economy', *Papers and Proceedings of the AEA*, lxxi (1981), 5, 6).

At the same time, I have pointed to significant differences between Jevons and Mill. First, Jevons failed to consider the possibility of compensating those harmed by government policies. This may be a reflection of a more pervasive difference: Jevons was in some instances less willing than Mill to call for intervention. He objected to Mill's calls for wide—ranging land reform in Ireland, and maintained a less radical stance on co-operation than Mill.

VII

I turn in conclusion to an evaluation of the relationship between Jevons's *Theory of Political Economy* and his analysis of economic policy. This issue is important considering on-going debate concerning the relevance of Jevons's utility theory to his policy analysis. R. D. C. Black has suggested that Jevons placed little faith in economic theory as a guide to policy analysis. Similarly, Mark Blaug has argued that 'when Jevons and Walras wrote on policy questions, as they did, there was little or no connection between practical recommendations and their views on value theory'.⁴⁷ Yet, as noted at the outset, T. W. Hutchison contends that the policy and theory 're- or evolutions' were related.

We have seen that the case of progressive taxation based on the marginal utility theory, was not decisive for Jevons. Based on his methodological position outlined above, he rejected exclusive reliance upon static economic theory. Taxation, like all policy issues, required consideration of not only static but also dynamic and social 'probabilities'. Thus proportionate taxation, though not recommended from a marginal utility perspective, might still be the preferred tax rule on the (classical) theoretical grounds that it reinforced incentives to save, and on the social grounds that it served to inculcate responsible working class behaviour. More generally, as argued above, prices were not sufficient to measure the utilitarian (social) value of any good, or policy measure, since 'moral', 'sanitary' and other considerations were also entailed. I have demonstrated the close continuity in the policy analysis of Mill and Jevons; and attributed that continuity to a basic conception of social utility which allowed only a limited role for marginal utility and prices.

What of Hutchison's claim that marginal utility theory precipitated a new interest in the issues of poverty, and unemployment? There is no evidence of a 'new' interest in the issues of poverty or unemployment in Jevons's works. Unemployment was simply not a policy concern for

⁴⁷ See Black's remarks in 'William Stanley Jevons 1835-1882', *Pioneers of Modern Economics*, ed. D. P. O'Brien and J. R. Presley, London, 1981, p. 24, and also Blaug, p. 269.

Jevons. And my investigation has revealed that his concern with the poverty of the labouring classes was in line with that of Mill.

It is equally clear that Hutchison's evaluation does not do justice to the caution and empiricism of Mill, who did not rely upon 'rigid, Ricardian deductive absolutism', and whose approach to policy questions was so similar to that of Jevons. For both policy analysis was at best an imprecise 'art' requiring that issues of policy be decided on the basis of experiential knowledge.⁴⁸

It is important to reiterate here that Jevons in one respect went somewhat beyond Mill in the matter of experimental legislation. For while Mill urged that voluntary social and economic experiments be 'encouraged', he did not recommend experimental legislation. This is an original contribution by Jevons; yet there is nothing in Mill's analysis to suggest that he would have opposed Jevons's recommendations that legislation proceed tentatively and allow diversity and the utmost possible local control. In the light of Mill's own strong commitment to local diversity, one might presume that he would favour the 1880 recommendations.

My demonstration of the parallels between Mill and Jevons in the design of utilitarian presumptive rules, as well as in specific policy recommendations dictated by a shared concern for the working classes, suggests that Mill, also, was instrumental in the trend in favour of intervention evident in nineteenth-century policy analysis, a fact which the secondary literature has apparently failed to appreciate.⁴⁹ Indeed the evidence from his later works suggests that Jevons may have been more cautious, and more inclined to favour individual initiative (as opposed to government agency) than Mill. And in the analysis of co-operation, Jevons did not proceed as far as Mill.

Whether a 'transition', a movement towards intervention, occurred in Jevons's own thought is a much debated issue. T. W. Hutchison concedes that no one of Jevons's works provides conclusive evidence of a transition, but in a recent evaluation he contrasts Jevons's early (Australian) work with SRL and concludes that 1870 marks a personal 'turning point' for Jevons.⁵⁰ Yet there are many instances of continuity in Jevons's thought. It may be helpful to review these instances, which apply to Jevons's position concerning not only particular issues, but

⁴⁸ Indeed, Paul has minimized Jevons's contribution by suggesting that he 'endorsed Mill's fondness for attempting social experiments on a small scale' (p. 278).

⁴⁹ There are, however, some exceptions. See, for instance, Schwartz, as well as Hollander, *The Economics of Mill*.

⁵⁰ See Hutchison's position in *On Revolutions*, p. 97. R. Backhouse reiterates this, as well as many of Hutchison's arguments concerning the (post 1870) changing attitudes of economists towards state intervention and poverty (*A History of Modern Economic Analysis*, Oxford, 1985, pp. 75, 241–6). Hutchison concludes that 1870 marks a turning point in 'The Politics and Philosophy', p. 376.

also the principles of public policy. He reiterated his 1867 views regarding the basis for government intervention in 1880 and 1882. In 1871, 1880 and 1882 he cautioned that government reforms must take into account the state of popular opinion. In 1863, 1870 and 1878 Jevons insisted that poverty and vice must be alleviated. He upheld the principle of individual liberty from 1866 on. And he retained his 1868 view regarding trade unions and co-operation through 1882.⁵¹

Further, the evidence from two works written very late in Jevons's career, reveal a presumption against intervention. Thus while he called for specific innovative interventions (new programmes which were feasible only once the education question was 'cleared up'), these at the same time entailed little direct government action, and Jevons retained a presumption in favour of competition, markets, and non-interference with (orderly) social progress.

There is a further relevant matter if we are to maintain an accurate perspective. While Mill and Jevons appreciated the need for intervention to help the labouring classes, both retained a firm commitment to 'self-reliance'. And both believed that policy should be used to create self-reliant citizens. Intervention might be required if self-reliant action failed to achieve just results, but the long-term aim of policy was the eventual achievement of independent and responsible behaviour by workers, behaviour which under existing social and economic relations was not forthcoming. Thus for both, the utilitarian objective encompassed not only purely economic but also social and ethical goals—the encouragement of the virtue of self-reliance.

⁵¹ Since he did not write about taxation after 1875, it is difficult to determine whether Jevons continued to maintain his position on taxation or not.