A TALE OF TWO SCHOOLS: COMMENTS ON A NEW VIEW OF THE ORDINALIST REVOLUTION

BY

P. HÉNNIPMAN*

1 THE CONFRONTATION

A few years ago R. Cooter and P. Rappoport (henceforth referred to as CR) published in The Journal of Economic Literature an intriguing article titled 'Were the Ordinalists Wrong About Welfare Economics?' (CR, 1984). It presents an extensive and idiosyncratic account of the 'Hicksian' or 'ordinalist' revolution, described as 'the rejection of cardinal notions of utility' together with 'the general acceptance of the position that utility was not comparable across individuals' (p. 507). They explain it as part of a transition, occurring in the 1930's, to an entirely new prevailing conceptual framework of economics which changed the practices of economists (pp. 508, 525). It differs from the preceding one in three essential respects or 'elements.' The older framework, characteristic of the 'material welfare school,' consisted of 'a material welfare definition of economics, an empiricist conception of method, and an interpersonal conception of utility.' The newer framework, introduced by the 'ordinalists,' consisted of 'a scarcity definition of economics, a positivist conception of method, and an ordinalist conception of utility' (p. 528; somewhat different wordings of the contrast pp. 508, 512). It is stressed that each framework was an 'essential unity' (p. 528; similarly p. 520). Pigou and Robbins figure respectively as the leading representatives of these schools, the former with Marshall and Cannan, Robbins with Hicks, as principal allies.

The victory of the newer framework is seen as a 'dramatic change' (pp. 508, 525). Robbins offered, according to the authors, no less than a 'complete alternative' (p. 520), which entailed a shift to a totally different set of problems to the effect that 'the work of neither school encompassed that of the other' (p. 528). In CR's vision the opinion switch concerning interpersonal comparability of utility was the crucial feature of this upheaval. Their main conclusion is that 'the ordinalist revolution represented a change, not progress in economics' (p. 508). While it brought about 'gains in understanding markets' it also resulted in 'losses in understanding human welfare' (p. 528). Throughout, CR's sympathy for the dislodged traditional school is apparent; their essay may be re-

Emeritus Professor of Economics, University of Amsterdam.

garded as an attempt to rehabilitate it, vindicating its 'scientific integrity' (p. 509).

If their tale is true, CR have made an exciting discovery. The radical reversal of economic theory they depict had gone totally unnoticed previously. Such a bold contention invites a thorough appraisal. Regrettably, even if a number of details are neglected, a lengthy and perhaps tiresome report, including a considerable amount of documentary evidence, is required to do justice to the subtle issues relating to the three topics involved in the opposed frameworks: the definition of economics, several aspects of utility theory, and methodology, together with the consequences CR ascribe to the replacement of the old by the new framework. The complexity is considerably enhanced by CR's eccentric definition of key concepts, which leads to a mingling of semantic and substantial matters. The examination will show that CR's daringly original story can by no means be accepted at face value.

2 MATERIAL WELFARE: A PATCH OF FOG

In the comparison of the two frameworks confusion enters at once with the 'material welfare' definition of economics as the first element of the older framework. In CR's parlance the 'material welfare definition' signifies that 'economics was particularly but not exclusively concerned with goods that people need for the sake of physical and mental well-being' (p. 521) and, accordingly, with a 'particular type of satisfaction,' relating to 'survival and health' (p. 513). The underlying idea, which CR indicate as the school's basic one, is the existence of a hierarchy of goods and satisfactions, ranging from 'the purely "economic" or "material" at one end to the purely noneconomic or nonmaterial at the other.' The 'material end' consists of the necessaries of life; further along the hierarchy are 'comforts' and 'luxuries' (*ibid.*). The first category, called 'material welfare,' is the school's 'major preoccupation' (p. 527).

In presenting this formulation CR seem unaware that 'material welfare' has always been a tricky notion with a variety of meanings, as may be gathered from Fraser's instructive discussion (1937, pp. 24 ff., a book justly praised by CR, p. 524, n. 38). What they say about the first element of the framework is only correct in so far that Marshall and Cannan indeed adopted a kind of 'material' criterion for the scope of economics, but they did so in different ways and both their definitions are much broader than CR's concept.

Marshall, having indicated 'the material requisites of well-being' as the distinctive concern of economics (1920, p. 1) specified the corresponding notions of wealth and economic goods without any restriction to necessaries (p. 57). Cannan's 'material welfare' definition was equally free from such a limitation. It does not refer to a special kind of goods but excludes from economics, as in the passage quoted by CR (p. 513, n. 15), spiritual satisfactions 'such as that felt by a martyr dying of starvation rather than abjure his God' (1930, p. 4) and 'the consolations of religion and the joys and sorrows of acquiring and

losing spouses and children' (1932, p. 426). It is in line with these interpretations that Robbins, in his attack on the material welfare criterion, nowhere suggested that it was linked to necessaries (1935, pp. 11 ff.; 1953, pp. 104–5; 1971, pp. 146–147).

CR's label is even less fitting for Pigou. His well-known definition of economic welfare, the subject matter of economics, by means of the 'measuring-rod of money' (1932, p. 11) also lacks any specific connection with CR's 'material welfare,' their contrary assertion (p. 513) notwithstanding. He moreover expressly distinguished it from material welfare 'in the sense of a man's income or possessions,' which 'may be a *means* to welfare,' but is not 'identical with or a part of' economic welfare (1951, p. 288). So it is very strange indeed that CR allow themselves, when paraphrasing Pigou, to substitute the expression material welfare for economic welfare, using it moreover in another sense than he did (e.g. p. 513).² Contrary to CR's assertion (p. 512, n. 14³) Robbins did not ascribe the 'material welfare view' to Pigou, but correctly distinguished this criterion from Pigou's measuring-rod of money (1935, p. 21, n. 1).⁴

So it appears that CR's description of the first element of the older framework runs counter to the historical facts. The cavalier manner in which they ignore these is all too typical of their method, as more examples will show.

3 THE ELUSIVE MATERIAL WELFARE SCHOOL

In spite of CR's errors regarding the definitions of economics proposed by the three economists just discussed, their conception of the material welfare school deserves a further look. It cannot be excluded that material welfare in CR's sense was in fact, within a wider formal demarcation, their 'major preoccupation.'

In this respect CR's case is somewhat stronger, but still not convincing. It is undoubtedly true that Marshall was deeply interested in the problems of poverty and allied ills. In his opinion contributing to their alleviation 'gives to economic studies their chief and their highest interest' (1920, p. 4; see on this point also Maloney, 1985, pp. 25 and 38). Similarly Pigou declared: 'The main motive of economic study is to help social improvement' (1932, p. IX; see also the passage cited by CR, p. 519, n. 31). This abiding conviction, already expressed in his Inaugural Lecture of 1908 (cited by Johnson, 1960, p. 152) is elo-

¹ These quotations show that the term 'material' may denote kinds of goods as well as kinds of wants or satisfactions. Robbins's criticism was initially directed in the main against the first meaning (1935, pp. 4 ff.; 1953, p. 105) but later 'the materiality of the objectives' was particularly seen as too restrictive (1971, p. 146). CR's definition seems to conflate both versions.

² The same point is made by Little in his comment on CR's paper (1985, p. 1187, n. 2).

³ The reference should be to p. 4, not p. 11 of the 1935 edition of the Essay.

⁴ A similar distinction is made in Kirzner's extensive work on the scope of economics (1960, pp. 21, 96 ff.).

quently restated at the end of the Preface to the third edition of *The Economics of Welfare* (1932, p. VII).

Yet it would be wrong to infer that the vision expressed in these pronouncements determined the scientific activities of the two Cambridge economists in such a simple direct manner that, as CR's characterization suggests, their writings were preponderantly devoted to CR's material welfare and related topics. They cover, of course, a much wider range of subjects. No doubt one may assemble from Marshall a good many fragments, large and small, displaying his interest in the problems CR highlight (e.g. 1920, pp. 714 ff.), but taken together they are far from exhibiting this concern to be as pre-eminent as CR make it appear.⁵

Much the same can be said of Pigou who, because of the prominence CR assign to him, merits special attention. Even in *the Economics of Welfare* the problems which may be considered to fall more or less under the heading of CR's material welfare occupy only a relatively modest space. They occur mostly in Part IV, dealing with the distribution of income, and in a number of dispersed passages (referred to in the index sub 'Poor'). Important theorems, like those concerning externalities, are discussed in terms of economic welfare in general or the 'national dividend.' Though also touched upon now and then elsewhere (e.g. 1937, p. 21), in Pigou's vast oeuvre as a whole the proportion dealing with his supposedly 'major preoccupation' is considerably smaller still.

The relationship between his work and the repeatedly enounced ultimate aim of economics can best be seen in the light of Pigou's observation that 'economics is *relevant* to social improvement. In an indirect way it may help that improvement on' (1952, p. 82). This somewhat distant commitment, of which the severely theoretical works on unemployment may serve as an example (1933, 1941), is altogether different from the kind of near-continuous engagement CR regard as typical of the older school.

So the construction of the material welfare school has no more than the slenderest base in the work of Marshall and Pigou. CR's interpretation is flawed by presenting what is merely a part, and a minor part at that, of a comprehensive, widely varied structure as being almost the whole. Illustrative of this misrepresentation is the astounding statement that 'price theory was not so central to economics until after the ordinalist revolution' (p. 512). Tell that to Marshall's ghost!, one is tempted to reply.⁶ So it is no wonder that one would seek

- 5 CR's picture also proves to be much too narrow when compared with Maloney's recent enlightening study (1985) which, focusing on Marshall's aspiration to create a 'scientific' economics, shows that his attitude to the discipline was more complicated than finds expression in CR's material welfare formula.
- 6 More to the point are Maloney's comments on 'the priority which the Marshallian school of economics gave to the development of price theory' (1985, p. 233). This is confirmed on unimpeachable authority: in his engaging reminiscences Professor Austin Robinson remarks about Marshallian economics in Cambridge during the 1920's that 'our primary concern was with the determination of prices' (1986, p. 40).

in vain for the same sort of portrayal in the extensive secondary literature on the two authors. Cannan's membership of the elusive club is even more questionable. It seems to rest entirely on his misunderstood material welfare definition, since otherwise CR scarcely mention him at all.

Not only is the very existence of the material welfare school contestable, but CR's argument about its significance evinces an ambiguity which pervades their article. One the one hand the two frameworks are contrasted as pertaining to economics as a whole, 'guided by a separate definition of economics' (p. 527). On the other hand they are conceived, more narrowly, as triads of views in welfare economics on which the authors say they have concentrated (p. 510) and which the title of their essay indicates as the central subject. Despite the marked difference between the two approaches CR regularly argue as if they virtually coincide. In their exposition the two points of view alternate, the one shading into the other, in a most confusing fashion.

An example of the resulting inconsistencies is provided by CR's reasoning about the concept of a hierarchy of goods. It is introduced as basic to the older framework, but later they remark, rather casually, that it had no use 'in the explanation of prices – for the material welfare school, the price of bread had the same explanation as the price of opera tickets' (p. 515). This implies that the fundamental notion of material welfare had no function in this context either. By admitting this obvious fact the authors themselves relinquish the pretence that the framework captured the economics of its time in its entirety. From this angle too the conception of the material welfare school is revealed as being highly artificial.

4 ABOUT UTILITY: A FAIRY-TALE

As mentioned above and expressed in their title, CR regard the theory of utility as the crucial bone of contention in the dispute between the two schools. They differentiate the conflicting utility concepts in two ways, as objective *versus* subjective and interpersonal *versus* ordinal.

CR indicate as a significant feature of the older school that it 'did not equate utility with preference' (p. 509). 'Essentially, goods were seen as having utility only if they contributed to a person's physical well-being, which was conceived as nearly equivalent to productive capacity' (p. 509). Or, in other words, 'the power of commodities to satisfy material needs was called utility' (p. 516). Thus the concept of utility was confined 'to the material end of the hierarchy of goods and satisfactions' (p. 516), which makes it practically identical with material welfare. CR affirm that utility in this sense is 'an objective, public phenomenon' (520, also p. 509).

They notice an analogy between this meaning of the term utility and Pareto's 'utilité' which he distinguished firstly in the *Cours d'économie politique* from 'ophélimité'; these terms correspond, as CR put it, to 'the difference between "socially useful" and 'desired" (p. 515). It might be questioned whether the

similarity of the very special usage of 'utility' they attribute to the traditional school and Pareto's 'utilité' is as strong as they suppose. Besides, they disregard that, according to Pareto, economics is only concerned with 'ophélimité,' and not with 'utilité,' belonging to his sociology.

One may also query the assertion that at the turn of the century the definition of utility 'was not so clear-cut' as 'the subjective notion of utility that is current today' (p. 515). In any case it cannot buttress the puzzling thesis about the older school's objective utility concept. It is not difficult to verify that its adherents adopted precisely this 'clear-cut' subjective interpretation. They did as a rule 'equate utility with preference' without a trace of confining it to necessaries. For representative examples one may consult Marshall (1920, p. 93: 'Utility is taken to be correlative to desire or want') and Cannan (1964, p. 197, remarking that 'ophelimity' or 'desiredness' are substitutes for 'utility'). CR's star-witness Pigou defined economic welfare, for him synonymous with satisfaction and utility, as a distinctly mental concept. In his words 'the elements of welfare are states of consciousness' (1932, p. 10), or, as he writes elsewhere, an individual's economic welfare 'must be somehow resident in his state of mind or consciousness' (1951, p. 288). D.H. Robertson, one of the last defenders of a Cannan-like material welfare criterion, called utility, satisfaction and economic welfare 'alternative expressions' (1952, pp. 15, 29).

Moreover, these authors were familiar with the distinction between utility and 'usefulness,' but, like Pareto and unlike CR's reading of them, they did not leave it in doubt that economics typically deals with the first category Exemplary in this respect is Pigou's discussion of the 'possibility of conflict' between economic welfare and welfare in general (1932, pp. 14 ff.), together with his opting for economic welfare as the subject matter of economics. In a later booklet he observed in the same vein that the question whether satisfactions contribute to welfare in general 'lies outside the economist's proper field' (1946, pp. 74/5). This circumscription was not seriously impaired by occasional bits of 'Marshallian moralizing' (Hutchison, 1953, p. 288), like the lesson that 'some indulgences are positively harmful' (Marshall, 1920, p. 531). There are, however, particularly in Pigou, some complications regarding the relationship between preferences and satisfactions which will be considered below.

In addition to their being at variance with readily available facts, CR's propositions about objective utility reflect the ambiguity noted in section 3. The difficulty comes to the surface in a stray sentence towards the end of their paper (p. 527). Here CR observe that the school retained their conception of utility, in spite of its being 'cumbersome' for price theory, because it was 'well adapted to the examination of propositions about material welfare.' This cryptic phrase seems to suggest that the school made do in price theory with an impractical tool for the sake of a superior purpose, but it remains obscure how this could be reconciled with the remark, quoted above, on the unsuitability of the notions of a hierarchy of goods and hence of objective utility for this topic.

5 WHOSE DISTORTING LENS?

However conclusive the refutation of CR's rewriting of the history of utility theory may appear, owing to its special importance for their central theme, the interpersonal comparisons of utility, the subject cannot be dropped yet. Their illustration of the objective utility concept revolves in the main around this issue.

They see as a crucial property of objective utility that it is 'comparable across individuals' (p. 520) and one of their principal contentions is that the adherents of the traditional framework accepted the interpersonal comparability of utility on this ground. According to CR they held, more specifically, that it is implied in the hierarchy of human needs 'which is the same for different people' (p. 519). This equality makes it feasible to establish, in an objective way based on 'observable facts,' the effect on material welfare of income transfers from the rich to the poor (p. 519). Thus interpersonal comparisons relate to needs and not to subjective desires (p. 516). By contrast, Robbins's negation of objective or scientific comparisons concerned ophelimity, and so the disputants argued 'past each other' (p. 525).

CR's review of this topic is not without a measure of truth, such as the insight that interpersonal comparisons were not understood as value judgments or normative prescriptions, but as positive in the sense of factual or descriptive statements. Their insistence on this point (pp. 515, 519, 523, 527), conflicting with the common misinterpretation, deserves appreciative agreement.⁷

It is also true that Marshall and Pigou recognized some kind of hierarchy of goods and wants, such as Marshall's distinction between necessaries, comforts and luxuries (1920, p. 67; not p. 6 as in CR's reference p. 513). Though he did not connect it with interpersonal comparisons, it may be seen as relevant to them. Pigou, in the opening sentences of the chapter on income transfers from the rich to the poor, states: 'Expensive luxuries give place to more necessary articles, rare wines to meat and bread' etc. (1932, p. 87). Common-sense observations of this kind, as also Marshall's example of walking or riding in the rain (1920, pp. 19, 95), served to support and illustrate the law of diminishing marginal utility of income, which, as Pigou pointed out, is the rationale for interpersonal comparisons and ascribing positive welfare effects to income transfers (1932, p. 89).

They do not, however, justify the assertion that interpersonal comparisons were envisaged as pertaining directly 'to needs and not to subjective desires.' There is no reason to assume that Marshall and Pigou deviated in this connec-

⁷ This interpretation is contested by Little on the ground that these economists used 'value-laden terminology' (1985, pp. 1187–1188). In their reply (1985, pp. 1189–1190) CR rightly reject this dubious argument.

⁸ Also Cannan: 'The more income a man has, the more it is spent on comparatively trivial things' (1930, p. 228; similarly 1964, p. 95). He accepted the law in question, but had little to say on interpersonal comparisons.

tion from the subjective definition of utility reported in the foregoing section. If they attached a special meaning to the term in welfare economics, these systematic and careful thinkers would certainly have said so explicitly, but there is not the slightest hint of this. Marshall's discussion of diminishing marginal utility of income in the chapter on consumers' demand (1920, pp. 95–96) shows this conceptual unity. With Pigou the case is equally plain. He explained the significance of the diminishing marginal utility of income with regard to income transfers in terms of economic welfare (1932, p. 89; quoted by CR, p. 517) or 'the aggregate sum of satisfaction' (*ibid.*) and similar expressions (*e.g.* 1951, p. 299; 1953, p. 48) – notions which he defined unequivocally and invariably used in a subjective sense.

They were aware that owing to the subjective nature of utility the comparisons were not based on simple 'observable facts.' This recognition is most clearly reflected in the caution with which Pigou, in his time the most articulate defender of interpersonal comparisons, justified them 'upon broad grounds of experience, reflection and conversation' (1951, p. 301; similarly p. 292). For the basic law he claimed in the end no more than that he felt 'reasonably confident that it is true' (*ibid.*, p. 301).

The view that comparisons cannot be made between 'any two men' (Marshall, 1920, p. 18) or 'between any one man and any other' (Pigou, *ibid.*, p. 292), but only between 'the average of large numbers of people' or 'representative members of groups of individuals' does not, as CR suggest (pp. 518–519), reflect an objective utility concept, but rather the contrary. With CR's objective standard this restriction would be less necessary.

CR circumvent the simple truth in this matter by the characteristic failure to give a simple clear textual reference to the objective notion of utility in Marshall and Pigou, and the tendency to read into their wording a meaning which corresponds to their own position. So it is strange that they detect in Pigou's explanation 'the language of the material welfare school' (p. 517). They wrongly identify diminishing marginal utility of income with the hierarchy of wants embodying objective utility. Correctly read, the passage from Pigou they quote in full (*ibid.*) is the best possible rebuttal of their interpretation. It is likewise incomprehensible why they make the criterion 'that money be allocated so that its marginal utility is equal between people' dependent on the 'material welfare conception' (*ibid.*).

A telling symptom of the muddle CR get themselves into on the score of utility is the allegation that Robbins, in his rejection of 'scientific' interpersonal comparisons, failed to distinguish ophelimity and utility in the sense of the material welfare school and therefore misinterpreted the nature of the comparisons made by this school (pp. 521, 525). One may agree with CR that the debates in the 1930's on interpersonal comparisons were unsatisfactory (p. 525)

⁹ As CR note themselves (p. 518, n. 30) the same procedure was followed by strict subjectivists like Wicksteed.

but this was not due to 'confusion as to the concept of utility being appealed to' (p. 528). Talk about confusion! CR blame 'the distorting lens of the ordinalist framework' in judgments on the older school (p. 508). Whether or not the charge is true, at any rate such a deficient implement is not the exclusive property of the accused party.

6 NEEDS AND PREFERENCES: AN ANTICLIMAX

Though by now the persevering reader must be near to a surfeit of the objective utility phantom, its most interesting aspect remains unexamined. This concerns the complications about preferences and satisfactions mentioned in section 4.

The basic reason why CR stress the role of objective utility is their view that the older school was primarily interested in maximizing objective utility and not ophelimity when the two do not coincide. This is one of the leading ideas in their vision of this school, which also colours the way they look at its interpersonal comparisons. It is inspired by what is in fact a noteworthy and rather neglected strain in Marshall and particularly Pigou, but their reasoning about it is defective.

In support of their thesis they furnish, in the section 'Maximization of utility vs maximization of ophelimity,' no more than meagre evidence of doubtful validity (pp. 516–517). What they call the 'greatest divergence' between the two, only touched upon in a footnote (p. 516, n. 25), refers to Pigou's well-known criticism of 'wholly irrational time preference,' in his words 'one very important exception' to the normal equivalence of desires and satisfactions (1932, pp. 24 ff.). CR interpret this statement as a belief that time preference would result in 'a deleterious effect on material welfare.' Here CR again distort his argument to make it fit their own scheme. Pigou does not at all relate the harms due to time preference or too little saving specifically to 'material welfare' or 'utility' in CR's sense, but calls it more generally a loss of satisfaction because the amount of economic welfare enjoyed in the present is too large compared with that in the future. Objective utility does not enter into this judgment, which has also been voiced by economists of impeccable subjectivist credentials, such as, with a light touch, Jevons (1871, p. 76) and, more emphatically, Böhm-Bawerk (1921, pp. 333–334 and 478–479). 10

Furthermore, CR quote a paragraph where Pigou notes, thinking especially of the poor profiting from an income transfer, their tendency 'to dissipate the extra income in forms of exciting pleasure, which, when their indirect, as well as their direct, effects are taken into account, may even lead to a positive loss of satisfaction' (1932, p. 91). He also points to the likelihood of 'a good deal of foolish expenditure which involves little or no addition to economic welfare.' CR translate this as a fear that 'instead of being spent so as to maximize utility,

¹⁰ See for a recent forceful condemnation, in a subjectivist context, of time preference as irrational Elster (1984, pp. 65 ff.).

money transfers would be squandered, i.e. spent to maximize ophelimity' (p. 516).

This passage of Pigou is the strongest testimony CR submit in favour of their divergence theory. It is indeed defensible to see in his warning a concern about 'material welfare,' but this does not make their antithesis correct. Pigou did not think in terms of CR's 'utility' but of economic welfare. It may to a certain extent be contrasted to ophelimity if this is taken to include the gratifications he disapproved of, as seems to be CR's intention, but Pigou did not make such a terminological distinction. His reservations should be understood, in accordance with his own words, as relating to a failure to maximize economic welfare, presumably over a somewhat longer time-span. Moreover, the importance Pigou attached to this kind of behaviour is diminished by his expectation that the frailties he perceived would be only temporary if 'the higher income is maintained for any length of time' (1932, p. 91). His real aim was to refute the view that income transfers do not promote economic welfare because the poor are not able to spend them properly.

CR might have strengthened their argument somewhat by paying attention to another chapter in Pigou's great treatise, where he expressed still more firmly the apprehension that 'many members of the poor' will not spend the increased income in ways 'likely to yield the largest return of capacity' or efficiency (p. 756). For this reason he even turned overtly paternalistic by recommending 'some degree of oversight,' though 'very carefully guarded,' of the recipients of money transfers (*ibid.*). As these defects in 'the art of spending,' mainly due to ignorance, operate ultimately to the detriment of economic welfare, they can best be seen as a failure to maximize this in the long run.

It must be granted that in these instances Pigou does not assume that 'each person is the best judge of his or her own preferences' and introduced 'a standard of verification external to that individual' (CR, p. 516). In this he did not wholly conform to the stricter subjectivistic method which eschews any evaluation of individual preferences as unwarranted value judgments. But since Pigou's 'external standard' remains the economic welfare of the individual (as he understood it), his way of thinking did not entail the acceptance of the objective utility notion CR ascribe to him. Also, the divergences he noticed are far from being a dominant theme in his work. He saw them, on the contrary, as rather exceptional, arguing that a correspondence of desires and satisfactions may be presumed for 'most commodities' (among them those which are part of CR's 'material welfare') and for 'the most general purposes of economic analysis' (1932, p. 24).

At this point a momentary but welcome agreement suddenly emerges. After a few paragraphs on the contrast between maximizing utility and ophelimity, CR's exposition takes a surprising turn when they rightly state that according

¹¹ This kind of more or less paternalistic judgment has some resemblance to the concept of merit and demerit goods in modern welfare economics.

to Marshall and Pigou 'the poor tend to use additional money in the most useful ways' and 'people typically desire what they need' (p. 517; they might also have referred to Marshall, 1920, p. 531). This anticlimax makes one wonder why, if the allegedly crucial divergence between preferences and 'utility' in their sense appears not to have much importance after all, such a fuss is made about it, elevating it to a constitutive principle of a newly thought-up school.

The foregoing examination reinforces the conclusion that the notion of two schools being divided by adhering to an objective or a subjective utility concept is entirely fictitious. So, one more pillar of CR's construction has crumbled.

7 THE SCARCITY DEFINITION: FALSE CONTRASTS

The misconceptions about the older framework are mirrored in the design of the new one. This sequel manifests itself at once with regard to the first element. By indicating as such the scarcity definition of economics as defended by Robbins, CR are on firmer ground than with the invention of its counterpart, but from here they proceed on a rickety base. Their discussion of this element is fatally prejudiced because they derive its implications through comparison with its unreal predecessor. This approach cannot but yield fanciful findings.

As Pigou is supposed to be Robbins's chief opponent it would have been more appropriate to compare the scarcity definition with the measuring-rod of money. Robbins himself has done so on several occasions. In the Essay he mentioned Pigou's definition only in passing (1935, p. 21, n. 1), observing that it is liable to similar objections as the exchange criterion, which he developed at some length. Returning a few years later to the question, he showed himself not quite happy with the measuring-rod of money since, like the exchange definition, it limits 'the subject matter of economics to a certain institutional setting,' but called the difference between the two criteria 'a very minor point indeed' (1938a, p. 344; in the same vein 1953, p. 105). 12 It might be argued, e.g. on the line of Majumdar's 'three formidable objections' to the Pigou criterion (1958, pp. 4 ff.), that here Robbins tended to play down the issue rather too much. All the same, from the outset he disclaimed any revolutionary aim for his proposal. He challenged the 'materialist' definition, his principal target, because 'it misrepresents the science as we know it' without rejecting 'the body of knowledge which it was intended to describe' (1935, p. 22). In retrospect, almost forty years afterwards, he rightly affirmed that there 'was nothing original in it' (1971, p. 140). Hicks had good reasons to call him 'ultimately, a traditionalist' (1954, p. 794; 1983, p. 344).

12 Kirzner (1960, p. 206, n. 6) also notes a similarity between the two. In fact, Pigou's criterion had better be seen as intermediate between the material welfare and the scarcity definitions. A subsidiary point is that Robbins disliked the expression 'economic welfare' on the ground that 'there are no economic states of mind' (1953, p. 106). This is a purely verbal misunderstanding. The meaning of the expression from the point of view of the scarcity definition is clarified by Majumdar (1958, p. 15; the book has a laudatory foreword by Robbins).

Ignoring these explanations, CR radically disagree with Robbins's own judgment. They assert that the scarcity definition 'was instrumental in uprooting the existing body of knowledge' (p. 521). From their point of view this is true: the definition spelled the end of the material welfare school and all it is held to stand for.

It implied, firstly, that the goods belonging to material welfare lost their privileged status: 'The crucial feature of Robbins' definition is that it expands the list of goods that are equally legitimate concerns of the economist' (p. 521). In line with this demotion the definition 'mandated' that economists shifted their interest to the formerly subordinate price theory: 'Considerations of scarcity directed economists to study the production and exchange of all commodities' (p. 527). It is apparently for this reason that the new framework is credited with achieving 'gains in understanding markets' at the cost of 'losses in understanding human welfare.' In their comments on the uprooting of knowledge, pride of place is given to still another change: the displacement of the objective by the subjective utility notion, 'the natural primitive concept for studying economic welfare' once Robbins's criterion is accepted (p. 521).

The absurdities in this record are so evident that a refutation is barely necessary. Suffice it to observe that CR greatly overrate the effects of definitions of scope on the contents of the discipline. They are descriptive, not prescriptive. So that of Robbins did not 'mandate' anything like the choice of relative priorities of research programmes, such as putting price theory above the study of poverty — by the way, pre-eminently a problem of scarcity. Accordingly it has not noticeably promoted price theory (which has always covered 'all commodities,' also within the material welfare framework which did not neglect opera tickets). The rise of the theories of monopolistic and imperfect competition in the period CR investigate owes nothing to Robbins's definition. And the ophelimity notion was of course in vogue long before this.

CR's pseudohistory is also analytically faulty. The alleged changes in economic theory have no specific logical relation with the Robbinsian criterion; they would be equally compatible with Pigou's measuring-rod or the exchange definition. In this regard the framework does not possess its putative unity.

Owing to their mistaken approach CR overlook the real 'crucial feature' of the scarcity principle. It is less market-oriented than the Pigovian delimitation because it includes choices unconnected with his measuring-rod, such as 'the distribution of time between prayers and good works' in a monastery (Robbins, 1935, p. 26). The same idea is expressed in the dictum 'there are no economic ends' (*ibid.*, p. 145). Though Robbins avowed that economic analysis as he defined it 'has most utility in the exchange economy' (*ibid.*, p. 19), the special significance of his definition is the recognition that nonmarket phenomena and all kinds of wants, in so far as they are related to scarcity of resources of any kind, are a 'legitimate concern of the economist.' Thus it incorporates a range of problems that have since become an important area of research, which is not to say that this is simply the fruit of this comprehensive formula.

8 PECULIAR ORDINALISM

CR assign in their scenario a prominent place to ordinalism, the 'salient feature of utility' (p. 508). An 'ordinalist conception of utility' (p. 528) is one of the elements and 'ordinalist' is likewise the distinctive attribute of the revolution they depict.

CR are in good company when they talk about an ordinalist revolution (Samuelson, 1974; Blaug, 1985, p. 368: 'Allen-Hicks Revolution'; Robbins, 1953, p. 103, prefers the term 'reformulation'), ¹³ but their perspective on its character and its positive and negative consequences is highly personal. It is also marked by terminological tangles which take some pains to unravel.

A first peculiarity is that in their description this revolution also comprises, as cited in section 1, the rejection of interpersonal comparisons of utility. The extension of its usual meaning makes this key notion in their paper an awkward one, which is noticeable throughout. The conjuction of the two properties, as well as the conception of a unitary framework, might suggest a theoretical relation between them to the effect that ordinalism proper implies non-comparability. Apparently CR do not make this disputable assumption; they explicitly distinguish the problems of measurability and comparability (pp. 511–512). Thus the rationale of the conceptual linkage is left in the dark.

A second duality seems more innocuous. Whereas the ordinalist revolution affects one element only, ¹⁴ the term 'ordinalist' is also used a couple of times (pp. 508, 528) for the framework as a whole. Presumably this must be seen as a *pars pro toto* merely reflecting, without further theoretical significance, the paramount position of ordinal utility in the new framework, which is likewise underlined in CR's title.

Yet, it is a curious side of this somewhat fuzzy terminology that on the one hand the ordinalist revolution is said not to represent progress in economics and on the other the ordinalist framework is held responsible for the 'dramatic change' involving the gains and losses quoted in section 1. It is not made clear how these judgments connect and probably it does not matter much. However, together with the attribution of drastic effects to the scarcity definition, they raise the problem of what each element, and ordinalism in particular, precisely contributes to the overall outcome. CR's answers to this question, crucial for the cogency of their dramatic play, are rather diffuse and mostly contestable.

The sparse comments on the share of the first component of 'ordinalism,' in which they use the term, remarkably, in its normal sense, do not lead to a clear-cut conclusion. CR point out that it has been known since the turn of the century that for price theory no more than ordinal utility is required (pp.

¹³ In a later stage of the debate Hicks (1956, p. 2) observed that 'the substance of what we have to say, over a central part of the field, is the same as what Marshall said' – a not overly revolutionary claim.

¹⁴ At least in the definition just quoted, but later (pp. 526 ff.) the expression is used for the emergence of the entire new framework.

508, 512) but that this insight, though recognized by the material welfare school (p. 522), did not gain much acceptance for some decades because it was irrelevant to the utility concept of this school (p. 512). When after its overthrow economists, guided by the scarcity definition, focused their attention on the study of 'production and exchange,' ordinal utility, CR continue in the same breath, proved to be 'the appropriate concept of human behavior' (p. 527). Hence its more extensive application appears to be generated at one remove by the changed view of the subject matter of economics. CR seem to be aware that the rather broad claim for its usefulness was in effect limited to the logical refinement of the theory of consumers' behaviour which did not, as they rightly observe, 'alter any of the standard results about consumer equilibrium' (p. 523). One may infer that they do not allot it more than a minor auxiliary part in obtaining 'the gains in understanding markets,' which are anyhow a mirage.

It is doubtful whether CR want to charge ordinalism with complicity in conducing the loss connected with the new framework. A slight hint in this direction is to be found in a paragraph about the behaviourist interpretation of ordinalism, ascribed to Allen and Hicks¹⁵ though not to Robbins, which excluded 'mental impulses' from utility theory (p. 523). This might have been elaborated into a noteworthy proposition, ¹⁶ but CR leave it at that. If on this count a harmful influence on economic understanding were imputed to ordinalism it would be a specific result, additional to the more fundamental one caused by discarding the objective utility concept. In any case the indictment, if CR intend their remark as such, could only be upheld against one variant of ordinalism.

All in all, for CR the questions regarding ordinalism in its usual sense are a side-issue. Their real interest lies in the second part of their wider definition. In accordance with their concentration on welfare economics they discuss ordinalism principally not as the opposite of cardinalism but of interpersonal comparability. This tendency goes so far that they frequently but tacitly identify ordinalism with noncomparability. Sections on 'ordinal utility' and 'ordinalist welfare economics' mainly deal with this subject. It gradually dawns upon

¹⁵ This interpretation may be questioned. Majumdar (1958, ch. VI) classifies these authors as 'introspective ordinalists,' calling their approach 'mainly introspective' (p. 63). This issue need not be pursued here.

¹⁶ In a recent interesting article Roy (1984, pp. 350 ff.) develops a judgment on ordinalism which bears some resemblance to that of CR. He argues, in colourful language, that 'the enormous change in the study of economics' brought about by the transition 'from the Marshallians to the Hicksians' in utility theory (p. 354) involved a grievous impoverishment, the neglect of psychological aspects, of the real pleasures and pains 'flesh-and-blood people' experience. At the end he expresses sympathy with CR's 'concurrent paper' (p. 362) but in his own there are none of their oddities and it is barely conceivable that he would agree with them.

¹⁷ As distinct from the dual definition of the ordinalist revolution, cited in the beginning of this section, in descriptions of the two frameworks noncardinalism is omitted and ordinalism contrasted with 'an interpersonal conception of utility' (p. 528; similarly p. 508).

the bewildered reader that in CR's narrative the term has three alternating meanings: noncardinalism, noncomparability, and both together. Amidst this profusion he comes to realize in time, at first somewhat incredulously, that the 'ordinalists' in the title are not those that every economist except CR would naturally think of, but the adherents of the noncomparability thesis. This explains why they associate them here with welfare economics. One is reminded of Humpty Dumpty.

9 A GRATUITOUS BALANCING ACT

CR regard it as incontrovertible that positive interpersonal comparisons of utility (in its normal sense) are impossible. The grounds they adduce for this view are similar to those of Robbins, such as the fact that 'ophelimity cannot be observed' (p. 521), which would make comparisons arbitrary (p. 509). It is the supreme paradox of their essay that, while ostensibly validating Pigou against Robbins's attack, they inadvertently, misled by the quirky interpretation of the first, side with the latter in this dispute. Strictly speaking their stand on this issue also implies a negative answer to the question in the title. CR, however, see the matter in a different light; for them the question bears on the merits of the abandonment of an 'interpersonal conception of utility,' embodied in naturally comparable material welfare, in favour of a notion that precludes interpersonal comparisons.

As mentioned above CR regard the utility element in the new framework as a consequence of the scarcity definition. Nonetheless 'ordinalism' as the 'salient feature' of this element has a decisive role of its own, contrary to ordinalism proper. It effectuated the most conspicuous and acute difference between the frameworks. Its success removed solutions to weighty problems of income distribution provided by the traditional method, and even these problems themselves, from economic theory. CR exemplify this curtailment with 'a partial list of questions that material welfare economists claimed to answer and ordinalists claimed were unanswerable by economics,' such as: 'Is a dollar more valuable to the average poor person than to the average rich person?' (p. 508, n. 2). This narrowing of the subject, CR aver after a discussion of Kaldor's compensation principle, doomed welfare economics to sterility (p. 256). These consequences of the repudiation of the established doctrine form the essential 'dramatic change.' It is through them that 'the losses in understanding human welfare,' implicit in the scarcity criterion, definitely materialized.

CR's list of discarded problems is in itself unexceptionable and it is justifiable to call the remarkably swift ascendency of the Robbinsian¹⁸ position on

¹⁸ This epithet does not denote priority, but refers to Robbins's effective intervention, rightly stressed by CR. Robbins did not claim to be the first to oppose interpersonal comparisons. Among the predecessors he mentioned (1935, p. 141, n. 1) Pareto is strangely omitted, and Jevons appeared only at a later occasion (1938b, p. 637).

interpersonal comparability (despite the resistance CR note on pp. 524–5) a 'dramatic change' or, if one wishes, a revolution. But the real change was not the one CR evoke as it did not oust the fictitious material welfare approach; it concerned a problem within utility theory in its ordinary sense. CR moreover exaggerate its significance.

The drama was on a much smaller scale than they suggest. It is in particular with regard to this cardinal issue in their study that the vacillation between economics as a whole and welfare economics confuses their reasoning. The re-orientation concerning the comparability problem which Robbins advocated left the bulk of economic theory untouched. Thus it had nothing whatsoever to do with the emergence of a new conceptual framework for economics nor with the scarcity definition, which is neutral towards disputes on interpersonal comparability. Accordingly Robbins never related his opinion on this topic to that definition. This goes to show once more that the elements of the framework do not constitute a theoretical unity.

In welfare economics the effects of the banishment of interpersonal comparisons from 'pure science' (Robbins 1935, p. 139) were less damaging than CR make it appear. The contention about its ensuing sterility is disproved by the rich flourishing of the Paretian approach, including a new theory of redistribution, during the last half century. Further CR disregard that Robbins's attitude was not completely negative. Aiming at a methodological clarification he argued that comparisons could be maintained as ethical value judgments (1935, p. 140; 1938b, pp. 637 ff.; 1953, 108–9).

This point of view has found wide though not general acceptance. In this respect a further objection to CR's exposition may be raised. They must assume that their revolution had lasting effects, otherwise it would have been a flash in the pan. In fact they bother only incidentally about post-revolutionary developments. They seem to take for granted that after the triumph of the second framework it held sway with little dissent. That this is a one-sided view could be shown with regard to the scarcity definition and ordinalism; it is particularly so in the case of the comparability problem. Considering the Paretian negation of factual or descriptive interpersonal comparisons as unassailable, they write as if it conquered welfare economics absolutely. Actually it is still, as Rothenberg put it quite a while ago, 'the open question par excellence, in welfare economics' (1961, p. 194). The victory of the 'Paretian dogma,' as Robertson called it (1952, p. 37) has never been complete, even apart from such faithful Marshallians as Pigou and Robertson, and the problem has remained controversial to the present day. 19 It counts for something that economists of great repute like Harrod, Lerner, Tinbergen, Little, Meade, Harsanyi and Sen have come out in favour of comparability. One gets the impression that lately

¹⁹ The discussion is thoroughly and competently surveyed and evaluated by Möller (1983, with an English summary and an extensive bibliography), the only monograph on the subject.

this positive judgment has been gaining ground.²⁰ Roy's recent eloquent counterattack (1984, pp. 356 ff.) is in line with this current of thought, though he does not refer to it.²¹

One of its aspects is more directly relevant to CR's discourse. It is an old idea, already held by Marshall and Pigou, that comparability is not a question of all or nothing but is a matter of degree. Some later defenders of comparability have likewise accepted some form of what Sen calls partial comparability (1982, ch. 9). A noteworthy variant of this conception relates feasible comparisons in particular to urgent or vital wants (Marx, 1949, pp. 269/70); Grilli, 1953, pp. 257 ff.). Also Georgescu-Roegen's defense of comparability in a somewhat wider sense, on the base of a hierarchy of wants (1968, p. 265), has an affinity with CR's argument. These approaches may be seen as justifying to some extent their stress on the latter notion and on 'material welfare' as important factors in interpersonal comparisons. It should be noted, however, that the authors just quoted, though suggesting more or less objective indicators, do not therefore renounce the subjective concept of utility.

Finally, and perhaps more importantly, CR do not advance any cogent ground for why the rise of the new welfare economics should dispel the study of 'material privation' from the economists' agenda. The statement that the adherents of the older school 'retained a keen interest in the problem of producing and distributing necessities to alleviate want' (p. 512) remains true for later generations, including the 'ordinalists.' This continuing interest has been displayed, whether or not under the heading of welfare economics, in far-ranging researches in unemployment, income distribution, social security and, not least, underdevelopment, in Hicks's words 'one of the greatest of all problems' (1959, p. 161–162).

It follows that the gains and losses CR associate with the arrival on the scene of a new school are largely imaginary. To balance them, as they recommend, in order to evaluate this shadowy occurrence, would therefore be an altogether gratuitous exercise.

10 A METHODOLOGICAL FANCY

It would be a relief if the remaining methodological pair of elements, empiricism and positivism, could be exempted from the hapless fate of the two others, but even with the utmost leniency this cannot be. There is no need to quarrel about the somewhat curious methodological contrast, since positivism is specified as a form of empiricism (pp. 521–522). The explanation of the empirical methodology of the older school gives rise to some misgivings; there are obviously many parts in their adherents' works which are not particularly 'empiri-

²⁰ Another worthwhile contribution is that of Simon (1974).

²¹ It seems that he also appreciates CR's paper on account of their handling of this question, but his position is diametrically opposed to theirs.

cal.' It would, however, hardly be profitable to go further into this.

The true villain of this chapter is the element ascribed to the second framework, especially CR's belief that Robbins embraced 'the positivist conception of method' (pp. 523, 528). This is one of CR's most baffling contentions, a truly impressive feat of creative interpretation. Not a few will find it too bizarre to deserve serious consideration but such a summary execution would be too facile.

To dispose of a minor point first: CR bolster their assertion by pointing to the strong impact of positivism, imported from Vienna, at the LSE during the 1930's (p. 521). This information does not prove in the least that this brand of philosophy captivated Robbins to any extent. In his autobiography it gets no mention. If one wants to explore Viennese roots of his way of thinking, one cannot disregard the presence at the LSE of Hayek, certainly not a positivist, 'who was a major stimulus to thought' (Robbins, 1971, p. 127) and the more general influence, clearly visible throughout the *Essay*, of the Austrian school, not exactly a bastion of positivism.²²

It is startling that this red herring is CR's only attempt to substantiate their claim. They do not see fit to pay any attention to Robbins's general methodological principles. Failing to present the tiniest scrap of textual evidence they may be judged to have lost their case by default. For the rest one can only advise them to reconsider their opinion thoroughly. They could try to find in Robbins's Essay the advocacy of 'testing theories by quantitative methods' and the stress on prediction they note as essential features of positivism (pp. 521–522). Besides, they might profit from several valuable commentaries, in particular those in Stewart's attractive textbook (1979, pp. 82 ff., 154), Blaug's authoritative survey (1980, pp. 86 ff.), Caldwell's spirited study (1982, ch. 6) and Klant's acute analysis (1984, pp. 56 ff.). All these highly qualified authors, though differing in accents and details of interpretation and in degree of appreciation, are unanimous in placing Robbins outside the positivist camp, however defined.²³

In addition, CR may learn from these readings that the gap between Robbins and the older methodology was much smaller than they suggest. CR trace the methodology of the material welfare school back to Stuart Mill (p. 520); according to expert opinion (Blaug, 1980, p. 87; Klant, 1984, p. 58) Robbins likewise, though adding some Austrian ingredients, pursued in the main the tradition of Senior, Mill, Cairnes and Neville Keynes.²⁴

CR's omission is one more blatant example of the ambiguous scope of their

²² See for this connection Addleson (1984, pp. 509 ff., 517 ff.) and Gray (1982, p. 217, n. 3; also the publications by Hayek mentioned here), who characterizes the LSE at that time as 'a seedbed for transmitting Austrian economics.'

²³ Enlightening are also Peston's penetrating remarks (1981, pp. 184 ff.).

²⁴ Coats (1983, p. 189) even calls the *Essay* 'comparatively complacent and defensive,' again not precisely a revolutionary stance. Similarly Caldwell (1982, p. 133).

study. Despite general statements on Robbins's methodology their discussion of his supposed positivism is in fact restricted to his views on utility theory. For this reason they select as the relevant aspect of positivism its 'strictures against mental and moral concepts' and explain Robbins's ordinalism and especially his rejection of descriptive interpersonal comparisons by his 'commitment to the positivist line' in this sense (p. 522). It is left to the reader to find out how this explanation could be combined with the one based on the scarcity definition and its predilection for the ophelimity concept. There does not exist, of course, a link between that definition and positivism, so that the unity between these elements is absent as well.

CR argue that Robbins 'went a long way in the positivist direction of excluding ethical and mental concepts from science' and took 'observability' to be 'the demarcation criterion for science' (p. 522). Except for the reference to 'ethical concepts' these assertions are far from the truth. Actually Robbins frowned upon interpersonal comparisons on the broader ground that the assumptions of the law of diminishing marginal utility of income 'can never be verified by observation or introspection' (1935, p. 137). So his attack and Pigou's defence, quoted above, are methodologically not far apart and, more generally, his approach does not differ from the acceptance of 'common sense and introspection as legitimate evidence,' declared to be characteristic of the material welfare school (p. 520).²⁵

It must be said in CR's favour that they are not consistent in their aberrant interpretation. They soon correct themselves by pointing out that Robbins recognized 'two sources of evidence,' introspection and observation, and did not propose to purge utility of 'its subjective tinge,' so that his ordinalism was not behaviourist (p. 523). Yet they might have brought out more distinctly his emphatic plea for the inclusion of 'psychological elements' in economic explanations (1935, pp. 88 ff.; also 1953, p. 102).

CR's recognition of Robbins's subjectivism makes the invoking of the 'strictures' of positivism all the more far-fetched. It would have been much more plausible to connect, without excluding other influences on such a well-read scholar, his ideas on utility with the Austrian strand in his thinking. In his discussions of ordinalism he referred, among others, to the essentialist Menger (1935, p. 56, n. 2) and to Mises, the arch-enemy of positivism, as the one from whom he 'learnt long ago' that utility is not a cardinal but an ordinal magnitude (1953, pp. 103–104).

His opposition to 'scientific' interpersonal comparisons may likewise be related to the Austrian impact (in this sense Blaug, 1980, p. 87), though, as far as one can gather from his rather arbitrarily chosen references (1935, p. 141, n. 1) and the account of the genesis of his views on this problem (1983b, pp. 635 ff.), it was not the only source. At any rate, the dismissal of comparability

²⁵ This description equals almost to the letter a statement by Stewart on Robbins's method (1979, p. 122).

may be seen as a logical consequence of the subjectivism and methodological individualism espoused by the Austrians (Egger, 1979, p. 121; Rothbard, 1979, p. 92). This shows that ruling out interpersonal comparisons does not necessarily reflect a positivist disdain for unobservables.

With the unmasking of the last remnant of CR's second trinity as a strawman, the new unitary framework, though incorporating a few generally known facts, is entirely demolished.

11 EPILOGUE

At first sight CR's grand saga, displaying much erudition, might seem persuasive. It is certainly not devoid of sound and interesting observations. However, a detailed assessment of its contents, resulting in a monotonous litany of complaints, forces the rueful conclusion that it is essentially a historical fantasy, its bold pretensions utterly unfounded, much of it analytically weak, largely based on mistaken or even downright perplexing interpretations and judgments. Its protagonists, two schools waging battle on a wide front with dramatic consequences for the development of economics, are disclosed as nonexistent entities. There never was an 'ordinalist revolution' as CR conceive it, with Robbins as its leader, no move towards a 'complete alternative' or new 'research agenda' (p. 527). The climax of the plot, the genuinely important falling into disgrace of interpersonal comparisons, is mismanaged. The question in the title is insoluble as it addresses a nonproblem and CR's own answer that 'ordinalism' did not constitute progress makes just as little sense. There is moreover a curious gap in the narrative. Its tone suggests that the pseudorevolution was the decisive turning-point in economics during the 1930's. Not a word is wasted on the Keynesian revolution, let alone the relation between the two.

CR's enterprise is not a fruitful heresy, opening up new vistas; it is merely a dead end. It remains an enigma how two apparently serious economists could go so badly wrong. The scrutiny of their tale cannot but tax the reader's patience severely, but putting the record straight (not exactly a pleasant task) is, one may presume, called for in the interest of historical truth.

REFERENCES

Addleson, M., 'Robbins's Essay in Retrospect: on Subjectivism and an "Economics of Choice",' Rivista Internazionale di Scienze Economiche e Commerciali, 31 (1984), pp. 506–523.

Blaug, M., Economic Theory in Retrospect, 4th ed., Cambridge, etc., 1985.

Blaug, M., The Methodology of Economics, Cambridge, etc., 1980.

Böhm-Bawerk, E. von, Kapital und Kapitalzins II, Positive Theorie des Kapitales, Vol. I, 4th ed., Jena, 1921.

Caldwell, B., Beyond Positivism: Economic Methodology in the Twentieth Century, London, 1982. Cannan, E., Wealth, 3rd ed., London, 1930.

Cannan, E., A Review of Economic Theory, 2nd ed., London, 1964.

Cannan, E., 'Review of L. Robbins, An Essay on the Nature and Significance of Economic Science,' Economic Journal, 42 (1932), pp. 424-427.

Coats, A.W., 'T.W. Hutchison as a Historian of Economics,' in: W.J. Samuels (ed.), Research in the History of Economic Thought and Methodology, Vol. I, Greenwich (Conn.)—London, 1983, pp. 187–207.

Cooter, R. and P. Rappoport, 'Were the Ordinalists Wrong About Welfare Economics?,' *Journal of Economic Literature*, 22 (1984), pp. 507–530.

Cooter, R.D. and P. Rappoport, 'Reply to I.M.D. Little's Comment,' *Journal of Economic Literature*, 23 (1985), pp. 1189–1191.

Egger, B., 'Comment: Efficiency is Not a Substitute for Ethics,' in: M.J. Rizzo (ed.), *Time, Uncertainty and Disequilibrium*, Lexington (Mass.)-Toronto, 1979, pp. 117–125.

Elster, J., Ulysses and the Sirens, 2nd ed., Cambridge etc.-Paris, 1984.

Fraser, L., Economic Thought and Language, London, 1937.

Georgescu-Roegen, N., 'Utility,' in: D. Stills (ed.), International Encyclopedia of the Social Sciences, Vol. 16, New York, 1968, pp. 236–267.

Gray, J., Hayek on Liberty, Oxford, 1984.

Grilli, C., 'Die Theorie vom öffentlichen Nutzen,' Kyklos, 6 (1953), pp. 255-268.

Hicks, J.R., 'Review of Myrdal, The Political Element in the Development of Economic Theory,' Economic Journal, 64 (1954), pp. 793–796. Reprinted in: J.R.Hicks, Classics and Moderns, Collected Essays on Economic Theory, Vol. III, Oxford, 1983, pp. 343–346.

Hicks, J.R., A Revision of Demand Theory, Oxford, 1956.

Hicks, J.R., Essays in World Economics, Oxford, 1959.

Hutchison, T.W., A Review of Economic Doctrines 1870-1929, Oxford, 1953.

Jevons, W.S., The Theory of Political Economy, London-New York, 1871.

Johnson, H.G., 'Arthur Cecil Pigou, 1877-1959,' Canadian Journal of Economics, 26 (1960), pp. 150-155.

Kirzner, I.M., The Economic Point of View, Princeton (NJ), etc., 1960.

Klant, J.J., The Rules of the Game: The Logical Structure of Economic Theories, Cambridge etc., 1984.

Little, I.M.D., 'Robert Cooper and Peter Rappoport, "Were the Ordinalists Wrong About Welfare Economics?" A Comment,' *Journal of Economic Literature*, 23 (1985), pp. 1186–1188.

Majumdar, T., The Measurement of Utility, London, 1958.

Maloney, J., Marshall, Orthodoxy and the Professionalisation of Economics, Cambridge etc., 1985.

Marshall, A., Principles of Economics, 8th ed., London, 1920.

Marx, W., 'The Law of the Diminishing Marginal Utility of Money,' Kyklos, 2 (1949), pp. 254-272.

Moeller, R., Interpersonelle Nutzenvergleiche, Göttingen, 1983.

Pareto, V., Cours d'économie politique, Lausanne, 1896-1897.

Preston, M., 'Lionel Robbins: Methodology, Policy and Modern Theory,' in: J.R. Shackleton and G. Locksley (eds.), *Twelve Contemporary Economists*, London-Basingstoke, 1981, pp. 183–198.

Pigou, A.C., The Economics of Welfare, 4th ed. London, 1932.

Pigou, A.C., The Theory of Unemployment, London, 1933.

Pigou, A.C., Socialism versus Capitalism, London, 1937.

Pigou, A.C., Employment and Equilibrium, London, 1941.

Pigou, A.C., Income, London, 1946.

Pigou, A.C., 'Some Aspects of Welfare Economics,' *American Economic Review*, 41 (1951), pp. 287–302.

Pigou, A.C., Essays in Economics, London, 1952.

Pigou, A.C., Alfred Marshall and Current Thought, London, 1953.

Robbins, L., An Essay on the Nature and Significance of Economic Science, 2nd ed., London, 1935.

Robbins, L., 'Live and Dead Issues in the Methodology of Economics,' *Economica*, N.S., 5 (1938a), pp. 342–352.

Robbins, L., 'Interpersonal Comparisons of Utility: A Comment,' *Economic Journal*, 48 (1938b), pp. 635-641.

Robbins, L., 'Robertson on Utility and Scope,' Economica, N.S., 20 (1953), pp. 99-111.

Robbins, L., Autobiography of an Economist, London, 1971.

Robertson, D.H., Utility and All That, London, 1952.

Robinson, A., 'A Child of the Times,' The Economist, 20 December 1986.

Rothbard, M.M., 'Comment: The Myth of Efficiency,' in: M.J. Rizzo (ed.), *Time, Uncertainty and Disequilibrium*, Lexington (Mass.)-Toronto, 1979, pp. 90-95.

Rothenberg, J., The Measurement of Social Welfare, Englewood Cliffs (NJ), 1961.

Roy, S., 'Considerations on Utility, Benevolence, and Taxation,' *History of Political Economy*, 16 (1984), pp. 349-362.

Samuelson, P.A., 'Complementarity. An Essay on the 40th Anniversary of the Hicks-Allen Revolution in Demand Theory,' *Journal of Economic Literature*, 12 (1974), pp. 1255–1289. Reprinted in: H. Nagatani and K. Crowley (eds.), *The Collected Scientific Papers of Paul A. Samuelson*, Vol. IV, Cambridge (Mass.)—London, 1977, pp. 3–37.

Sen, A., Choice, Welfare and Measurement, Oxford, 1982.

Simon, J.L., 'Interpersonal Welfare Comparisons Can Be Made – and Used for Redistribution Decisions,' *Kyklos*, 27 (1974), pp. 63–98.

Stewart, I.M.T., Reasoning and Method in Economics, London, etc., 1979.

Summary

A TALE OF TWO SCHOOLS: COMMENTS ON A NEW VIEW OF THE ORDINALIST REVOLUTION

This article discusses a paper by R. Cooter and P. Rappoport (Journal of Economic Literature 1984). They contend that in the 1930's the existing conceptual framework of economics was superseded by an entirely new one. This so-called ordinalist revolution is said to have brought about changes in the definition of economics, the views on utility, in particular its interpersonal comparability, and in methodology. Pigou and Robbins are seen as the main representatives of the contrasted schools. It is shown that this account is historically wrong and analytically weak, based on untenable interpretations and judgments regarding the three issues involved.