

KEYNES'S PRINCIPLES OF WRITING (INNOVATIVE) ECONOMICS

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ABSTRACT

This paper investigates the hitherto neglected topic of Keynes's views on the writing of economics, especially the writing of innovative or path-breaking works. The main source materials are his writings in the 1920s and 30s, chiefly his comments on other economists and his reflections on his own experiences. The ideas expressed in these documents are reduced to five underlying principles. It is argued that these principles are pregnant with implications, not only for understanding Keynes's writing practices, the clarity of his writings, and the interpretation of his works, but also for the writing of all works in economics regardless of time, place, type and author.

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There has been relatively little research on Keynes as a writer, and none at all on his views concerning the writing of economics. Yet these topics are potentially vital influences on the nature and clarity of his writings and hence on the understanding and interpretation of his thought. It is now a mundane (but regrettable) observation that the reading of Keynes has generated a multiplicity of contested interpretations. This proliferation, sometimes based more on whim, fancy and ideology than on logic or reasoned argument, has spread from his writings on economics to his writings on philosophy, politics and other matters. The causes of diversity are often traced to his readers, but what has been largely overlooked is the important role of Keynes the writer. This paper, along with an earlier contribution, seeks to examine this generally neglected area by concentrating on Keynes's characteristics and views as a writer, and their implications for understanding his thought. The earlier paper, which may be viewed as a 'micro' study, focused on his use of words and language and how this impacted on the clarity of expression of his underlying thinking.² This paper, its 'macro' companion, is concerned with the principles of writing that Keynes advocated when writing works in economics, particularly seminal works, and the way these principles affect the clarity and interpretation of his writings.

However, the relevance of Keynes's views on the writing of economics reaches well beyond his own thought. Regardless of whether they are correct in full or only in part, they cast much light on the nature of *all* economic writings regardless of time, place, type or author, and hence on how economic writings should be approached in the interests of improved communication and scientific progress. They have much to say, therefore, to modern audiences.

Keynes was unusual among famous economists in having distinctive and insightful perspectives on writing, reading and controversy, activities in which he was constantly engaged and on which he reflected from time to time. These views, largely set out in the 1920s and 30s, will be discussed under two headings – firstly, his reflections on the practices of other economists, chiefly Marshall, Jevons and Malthus, and, secondly, his reflections on his own experiences, chiefly recorded in his 1932-33 lectures and a 1934 draft preface to the *General Theory*.

KEYNES'S REFLECTIONS ON OTHER WRITERS OF ECONOMICS³

It is little noticed, but attitudes to writing and publishing are common themes in Keynes's biographical essays on other economists. The essays on Marshall, Jevons and Malthus contain most of the relevant material, though additional remarks may be found elsewhere.

Marshall

Though deeply respectful of Marshall's contributions to economics, Keynes saw little in the writing and publishing methods of his old master that deserved emulation. A variety of inter-related factors were involved, many relating to Marshall's temperament.

The first concerned Marshall's plan for producing economic works over his lifetime. Initially, he proposed to write a series of monographs on particular topics, to work these subsequently into a general treatise, and to follow up with a short popular work for a wider

audience. After a serious health breakdown at the height of his early powers, this plan was abandoned in favour of devoting what little time the hypochondriacal Marshall thought he had left to working on his fundamental ideas in economic theory, with a view, as Keynes put it, to producing ‘a comprehensive treatise...born complete and fully armed from the head of an economic Jove’ (182).⁴ Keynes thought this was a great mistake: ‘was it not a fatal decision to abandon his first intention of separate independent monographs in favour of a great treatise? I think that it was, and that certain weaknesses contributed to it’ (197-8).

The prime weakness was that Marshall did not trust the wider world sufficiently. He doubted its intellectual cooperativeness and was thus unwilling to converse with it until he had honed his thoughts to a high degree. Such an attitude retarded scientific progress, theoretically and practically.

To his own pupils, who were to carry on the economics of the future, Marshall was ready to devote time and strength. But he was too little willing to cast his half-baked bread on the waters, to trust in the efficacy of the co-operation of many minds, and to let the big world draw from him what sustenance it could. Was he not attempting...to achieve an impossible finality? ...[I]n view of the transitory character of the economic facts, and the bareness of economic principles in isolation, does not the progress and the daily usefulness of economic science require that pioneers and innovators should eschew the treatise and prefer the pamphlet or the monograph? (198; also 186, 188)

Moreover, did not Marshall, by keeping his wisdom at home until he could produce it fully clothed, mistake, perhaps, the true nature of his own special gift? ... I have very early memories...of the sad complaints of my father...[concerning] Marshall’s obstinate refusal to understand where his special strength and weakness really lay, and how his unrealisable ambitions stood in the way of his giving to the world the true treasures of his mind and genius. Economics all over the world might have progressed much faster, and Marshall’s authority and influence would have been far greater, if his temperament had been a little different. (199)⁵

The second factor concerned the long gestation periods that separated the ‘initial discovery’ and ‘oral communication’ of ideas, on the one hand, from their ‘final publication in a book to the world outside’ on the other (174). Keynes had little time for Marshall’s inordinate delays. The nine (or more) years it took him to publish volume 1 of the *Principles* were bad enough, the twelve to twenty eight years it took for *Industry and Trade* to appear were worse,⁶ but the nadir was the nearly fifty years it took him to publish some of his earliest and best thoughts in *Money, Credit and Commerce*.

Marshall’s serious study of Economic Theory began in 1867; his characteristic doctrines were far developed by 1875, and by 1883 they were taking their final form. Nevertheless, no part of his work was given to the world at large in adequate shape until 1890 (*Principles of Economics*), and that part of the subject at which he had worked earliest and which was most complete by 1875, was not treated in a published book until nearly fifty years later, in 1923 (*Money, Credit and Commerce*). Meanwhile he had not kept his ideas to himself, but had shared them without reserve in lecture and in talk with friends and pupils. ... Inevitably, when the books themselves appeared, they lacked the novelty and path-breaking powers which would have been acclaimed in them a generation earlier... (179-80).

We must regret still more Marshall's postponement of the publication of his *Theory of Money* until extreme old age, when time had deprived his ideas of freshness and his exposition of sting and strength. There is no part of economics where Marshall's originality and priority of thought are more marked than here, or where his superiority of insight and knowledge over his contemporaries was greater.

Here too was a semi-independent section of the subject ideally suited to separate treatment in a monograph. Yet apart from what is embedded in his evidence before Royal Commissions and occasional articles, not one single scrap was given to the world in his own words and his own atmosphere at the right time. (189; also 190)

It was a similar story with *Industry and Trade*. Its sixteen appendices included several earlier unpublished monographs and articles, some of which were written many years earlier and were 'quite well suited to separate publication'. Keynes again judged it 'a fault in him that they were hoarded as they were' (227-8).

In third place may be noted two inter-twined characteristics of Marshall's temperament which also slowed scientific progress. These were his fear of mistakes and criticism, and his avoidance of controversy and public differences of opinion.

Marshall was too much afraid of being wrong, too thin-skinned towards criticism, too easily upset by controversy even on matters of minor importance. An extreme sensitiveness deprived him of magnanimity towards the critic or adversary. This fear of being open to correction by speaking too soon aggravated other tendencies. Yet, after all, there is no harm in being sometimes wrong – especially if one is promptly found out. (199-200; also 178, 195, 211-2)⁷

Marshall was extremely careful in his response to Jevons's *Theory of Political Economy* which, due to his tardiness, had robbed him of any possible claim to priority in publishing marginal utility theory in the anglophone world. While never disputing Jevons's claim, he nevertheless indicated the independence of his own prior work (183).⁸ His general rule was not to reply to criticism but, on one occasion when he did so and responded to Cunningham's critique of the historical passages in the *Principles*, he emerged successfully (210). Marshall also objected to Foxwell's habit of criticising some of his views whilst teaching for the tripos, a practice Marshall apparently thought unethical (269n3).

A fourth factor was the particular way in which the *Principles* was written. Its discussion proceeds smoothly and continuously, going around obstacles in its path rather than confronting them disputatiously.

It is elaborately unsensational and under-emphatic. Its rhetoric is of the simplest, most unadorned order. It flows in a steady, lucid stream, with few passages which stop or perplex the intelligent reader, even though he know but little economics. Claims to novelty or to originality on the part of the author himself are altogether absent. Passages imputing error to others are rare, and it is explained that earlier writers of repute must be held to have *meant* what is right and reasonable, whatever they may have said. (210-11)

The main benefit of this approach lay in raising the profile of economics among a wider

audience but, scientifically, it suffered from serious disadvantages.

The lack of emphasis and of strong light and shade, the sedulous rubbing away of rough edges and salients and projections, until what is most novel can appear as trite, allows the reader to pass too easily through. Like a duck leaving water, he can escape from this douche of ideas with scarce a wetting. The difficulties are concealed; the most ticklish problems are solved in footnotes; a pregnant and original judgment is dressed up as a platitude. The author furnishes his ideas with no labels of salesmanship and few hooks for them to hang by in the wardrobe of the mind. ... It needs much study and independent thought on the reader's own part before he can know the half of what is contained in the concealed crevices of that rounded globe of knowledge which is Marshall's *Principles of Economics*. (212)

Finally, Marshall's approach to lectures played a role. He neither wrote out his lectures, nor used notes, nor delivered systematic discussion. In 1906, for example, Keynes found it 'impossible to bring away coherent notes' (216). Marshall's preferred method was oral instruction as distinct from instruction by textbook, his intention being to stimulate his audience to think along with him in lectures with a view to creating people who could think for themselves. The great disadvantage of this method from a publishing viewpoint, however, was that Marshall, unlike others (including Keynes), did not use his lectures as vehicles for writing books and testing the exposition of ideas. 'His lectures were not', Keynes observed, 'books in the making', a practice which further delayed publication (216).⁹

Despite Marshall's tardiness in publication, Keynes gave him credit on two counts in this area. The first was 'the profundity of his insight into the character of his subject in its highest and most useful developments' (188). Possessed of a 'proper attitude to economic inquiry', Marshall recognised that economics was a complex subject requiring many skills and was not amenable to simplifying treatments, whether of the popularising Miss Martineau variety, or the mathematical economics variety with its 'rather 'potty' scraps of elementary algebra, geometry, and differential calculus'. What was instead required was a knowledge of history, an engagement with 'the vast laboratory of the world', and contact with those familiar with the practical conditions of economic life (186-7). The downside of acquiring such knowledge so as to avoid simplification or 'pottiness' was that it prevented rapid publication.

The second of Marshall's laudable attributes was 'his unwillingness to fall short of his own ideals in what he gave to the world', these ideals being high standards of 'scientific accuracy and truth' (188, 200). Unfortunately, Marshall set these standards too high which delayed the printed dissemination of his ideas and retarded progress. The obverse of a desire not to speak until truth and accurate expression have been discovered is a desire not to pronounce approximate truths and not to publish until all is virtually perfect.

In some respects, the picture of Marshall that emerges from Keynes's essay is that of a minor deity who declares as follows: 'I have a strong capacity for discovering truth and, whilst willing to give my potential disciples oral instruction, I shall ask the wider world, which is liable to be deceived by simplifications and half-cooked ideas, to wait until I have arrived at accurate and final propositions'. One of Marshall's declared mottos was 'The many in the one, the one in the many', but in this context a more fitting motto was 'Truth is one, error is many', with Marshall stalking the 'one'.

Jevons

Keynes portrays Jevons as almost the opposite kind of writer of economics from Marshall. He published his ideas far more quickly, but his haste and desire to make an impression left him open to charges of inaccuracy, incompleteness and unsound argument.

As a young man, Jevons began with ‘a long period of solitary thought and slow gestation in Australia’ (1854-59), at an age when his ‘powers of pure originality’ were at their highest (112). Soon after his return to Britain, he devoted himself to communicating his novel ideas to the world through a series of works over the next twelve years. His early efforts were bad failures. The first attempt to outline his new theory in an 1862 conference paper attracted no attention and was not printed at the time. A paper on business forecasting and a pamphlet on gold and price indices were also scarcely noticed. These dispiriting experiences led to a change of tack when he wrote his first book, *The Coal Question* (1865). Determined not to be disregarded, he wrote a striking work that became a best-seller. The sought-for recognition came, but at the price of exaggerated and deficient argument. As Keynes put it:

It is most brilliantly and engagingly written, with nothing omitted which could add to its attractiveness and the effect of its impact. But its prophecies have not been fulfilled, the arguments on which they were based are unsound, and re-read today it appears over-strained and exaggerated (112).

In 1871, the culmination of his pioneering work in economic theory was published as *The Theory of Political Economy*, a ‘simple, lucid, unfaltering [work], chiselled in stone where Marshall knits in wool’ (131). The following years, as regards economics, were spent bringing out further editions of his *magnum opus*, other less famous books, and a successful textbook.

Keynes’s assessment of Jevons as a writer and thinker dwells, in part, on the negative and positive aspects of rapid publication. First, Jevons is compared unfavourably to Marshall because haste led to deficiencies and even immaturity.

In truth, Jevons’s *Theory of Political Economy* is a brilliant but hasty, inaccurate, and incomplete brochure, as far removed as possible from the painstaking, complete, ultra-conscientious, ultra-unsensational methods of Marshall. It brings out unforgettably the notions of final utility and of the balance between the disutility of labour and the utility of the product. But it lives merely in the tenuous world of bright ideas when we compare it with the great working machine evolved by the patient, persistent toil and scientific genius of Marshall. Jevons saw the kettle boil and cried out with the delighted voice of a child; Marshall too had seen the kettle boil and sat down silently to build an engine. (184-5)¹⁰

But then, in a most important passage, Jevons is elevated above Marshall because of the great benefits of speedy publication, namely, the stimulation of other minds and the facilitation of scientific progress.

An economic treatise may have great educational value. Perhaps we require one treatise, as a *pièce de resistance*, for each generation. But...does not the progress and the daily usefulness of economic science require that pioneers and innovators should eschew the treatise and prefer the pamphlet or the monograph? I depreciated

Jevons's *Political Economy* above on the ground that it was no more than a brilliant brochure. Yet it was Jevons's willingness to spill his ideas, to flick them to the world, that won him his great personal position and his unrivalled power of stimulating other minds. Every one of Jevons's contributions to economics was in the nature of a pamphlet. Malthus spoilt the *Essay on Population* when, after the first edition, he converted it into a treatise. Ricardo's greatest works were written as ephemeral pamphlets. Did not Mill, in achieving by his peculiar gifts a successful treatise, do more for pedagogics than for science, and end by sitting like an Old Man of the Sea on the voyaging Sinbads of the next generation? Economists must leave to Adam Smith alone the glory of the quarto, must pluck the day, fling pamphlets into the wind, write always *sub specie temporis*, and achieve immortality by accident, if at all. (198-9)

I shall return to this significant passage below.

Malthus

Malthus began with an unpublished pamphlet, turned to a path-breaking but anonymous book, and then reverted to pamphlets as well as multiple editions of his book. *An Essay on Population* went through five editions, swelled to five times its original length and multiplied to three volumes. As Keynes saw it, the extensions were not improving, and the first edition, arising out of debate with his father and written with impulse, daring and forcefulness, was easily the superior version.

The first essay is not only *a priori* and philosophical in method, but it is bold and rhetorical in style with much *bravura* of language and sentiment; whereas in the latter editions political philosophy gives way to political economy, general principles are overlaid by the inductive verifications of a pioneer in sociological history, and the brilliance and high spirits of a young man...disappear. 'Verbiage and senseless repetition' is Coleridge's marginal comment in his copy of the second edition. (84-5)

Malthus's *Essay* is a work of youthful genius... [Its] importance...consisted not in the novelty of his facts but in the smashing emphasis he placed on a simple generalisation arising out of them. (86)

His next economic pamphlet, again published anonymously, presented his concept of 'effective demand', an idea which took hold of him so forcefully that he wrote continually for two days, sitting up 'till two o'clock to finish it that it might come out before the meeting of parliament' (88). It was this pamphlet, which Keynes regarded as 'one of the best things Malthus ever wrote' (90), that created an alternative non-Ricardian method of analysis and contributed to the famous friendship between these opposed thinkers. The fact that they largely recognised the methodological source of their differences, however, never created a meeting of minds on other issues. 'Time after time a crushing refutation by Malthus is met by a mind so completely closed that Ricardo does not even see what Malthus is saying' (98). Nevertheless, the warmth of their relations, their mutual respect and the absence of any bad feeling constituted a rare instance of the ideal way of treating intellectual opponents. Truth was what they both pursued, conversing all the while 'in peace and amity' (103; also 94).

Alpha and Omega Works

At this point, let me return to the passage containing Keynes's exhortation to economists to 'fling pamphlets into the wind'. Unpacking his meaning here is clouded by his occasional habit of poor or misleading word choice.¹¹ The words in question are 'brochure', 'pamphlet', 'monograph' and 'treatise'.

Because of dissonance between his text and the usual meanings of these terms, it is not clear where Keynes is drawing the lines between these publication types. To begin with, he does not appear to be distinguishing them according to their length. Jevons's books are not in the nature of pamphlets in this sense, Ricardo's *Principles* is hardly an ephemeral pamphlet, and Malthus's first edition (50,000 words) might be a monograph but is no mere pamphlet or brochure. Nor does he appear to be distinguishing them by period of gestation or production, this period lengthening from brochures or pamphlets at one end to treatises at the other. This criterion is unsuitable because it fits some cases but not others. Mill's treatise (*Principles of Political Economy*) was written, as Keynes pointed out, in only two and a half years, a much shorter period than the nine years it took for Jevons's *Principles*. And in relation to Keynes's own innovative works, the *Treatise on Probability* took ten years from start to finish (excluding World War I), the *Treatise on Money* six to seven years, and *The General Theory* four to five years.

But if it is not length or production period, what underlying idea is at work in this passage? My answer is that Keynes is distinguishing between the initial or early expressions of original ideas on the one hand, and their subsequent expressions in later works on the other. I believe this is what he is driving at but, if so, he could certainly have been less sweeping in his generalisations and more accurate in his word usage which conveys the misleading impression that the greatest of Ricardo's works, and every one of Jevons's works, were merely 'pamphlets'. The above interpretation is supported by consistency with his texts and, in particular, with the meaning of the Latin phrase, *sub specie temporis*. Modern readers may glide over this phrase but it provides an essential clue to his meaning. It may be translated as 'under the influence of, or from the perspective of, the (current) time'. Its unstated opposite is *sub specie aeternitas*, which means 'in relation to, or from the perspective of, eternity'. The former thus refers to time-bound propositions or truths, the latter to eternal propositions or truths. This distinction, I suggest, is central to the contrast Keynes is seeking to express.

Leaving verbal imprecision aside, my view is that Keynes's gist is a distinction between two kinds of works which, for want of better terminology, I shall call *alpha works* and *omega works*. Lack of success in finding a suitable contrasting pair among ordinary English words has led me to deploy these terms which, while somewhat artificial, are nevertheless sufficiently suggestive of the underlying conception. The main characteristics of each type are as follows.

- (i) Alpha works are the initial or early expressions of novel ideas; the ideas arrive quickly or in a flash and exert a powerful grip on the writer; the writing exhibits boldness, freshness and strong conviction; and the gestation period typically ranges from very short (days) to moderately long (4 to 10 years).
- (ii) Omega works are re-expressions of ideas that originated previously; they contain much additional material such as clearer statements, necessary qualifications, historical support and empirical evidence; the writing tends to be more cautious and less bold or controversial; and the production period is typically measured in years (3 to 50 years) rather than days or months.

Alpha works are thus first statements which seek to be basically, but not perfectly, correct; they are meant to be superseded and are not intended as final statements. Omega works, on the other hand, are subsequent statements which strive for higher degrees of finality, definiteness and precision. From this perspective, Keynes's exhortation may be re-written as:

Economists must leave to Adam Smith and Alfred Marshall the glory of the omega work, must pluck the day, fling alpha works into the wind, always write under the influence of the present, and achieve immortality by accident, if at all.

That the above understanding underpins Keynes's discussion is also suggested by the form of words he chose in lamenting Marshall's delays. These postponements meant that 'time deprived his ideas of freshness and his exposition of sting and strength', and that, as regards his theory of money, 'not one single scrap was given to the world in his own words and his own atmosphere at the right time' (189).¹²

KEYNES'S REFLECTIONS ON HIS OWN EXPERIENCES

During the early 1930's, Keynes periodically expressed his views on the writing and reading of economics and on criticism and controversy. His own experiences contributed to these reflections.

One vital set of experiences was almost certainly the reception given to the *Treatise on Money*, particularly Hayek's 1931-32 critical review.¹³ The last of the heavy annotations on his copy of the first part of this review revealed his disappointment.

Hayek has not read my book with that measure of 'good will' which an author is entitled to expect of a reader. Until he can do so, he will not see what I mean or know whether I am right. He evidently has a passion which leads him to pick on me, but I am left wondering what this passion is. (*CW XIII* 243)

In his reply, Keynes introduced further ideas on which he would subsequently expand.

He [Hayek] is sure that my conclusions are wrong (though he does not clearly state which conclusions), but he finds it 'extremely difficult to demonstrate the exact point of disagreement and to state his objections'. He feels that my analysis leaves out essential things, but he declares that 'it is not at all easy to detect the flaw in the argument'. What he has done, therefore, is to pick over the precise words I have used with a view to discovering some verbal contradiction or insidious ambiguity. I think I can show that most of my alleged terminological inconsistencies are either non-existent or irrelevant to my central theme. But when I have done this..., I feel sure that I shall have made little or no progress towards convincing Dr Hayek. For it is not really my use of language or the fact that my treatment falls far short of a complete analysis (as it certainly does) which is troubling him. It is something much more fundamental. (*CW XIII* 244)

In the lead-up to the *General Theory*, Keynes's lectures contained an unusual and informative digression on the writing and reading of economics. Unfortunately, the digression did not survive into the *General Theory* itself. In 1932, it was expressed as follows.

I believe, therefore, that it is necessary in writing economic theory for one's language to be less generalised than one's thought. It is often impracticable to discuss the most generalised case; and the author selects, therefore, a fairly typical case out of the genus which he is in fact discussing, and talks in terms of this, – satisfied in his own mind the same argument applies *mutatis mutandis* to the other members of the genus, and that the task of mutating the mutanda is a merely routine one as soon as the argument in the particular case discussed has been fully grasped by the reader. This means, of course, intelligence and goodwill on the part of the reader. But an author is entitled to presume these qualities. At any rate if he tries to dispense with them by endeavouring to concoct a legal document which he is prepared to stand by literally... then, I am afraid, he will never, if he has a thorough mind, reach the stage of publication. ...

Thus it [theoretical economics] is exceedingly dependent on the intelligence and goodwill of the reader or hearer, whose object should be to catch the substance, what the writer is at. ...

I hope that in these lectures I shall show that I am not obstinate and can take advantage of criticism on substantial points of argument and exposition. (*CW XXIX* 36-8).¹⁴

The notes taken by Bryce, Fallgatter and Tarshis at Keynes's 1933 lectures reinforce these points.

Generalized case more often a sample than a real generalization.

In economics one's thinking is perforce not truly by generalization, but rather by sample. So you must always see whether the imperfections in your sample case are relevant or irrelevant to your conclusions. ...

If you are not precise [in the use of language], those of your opponents who are capable of following your thought but do not choose to do so, will demonstrate that your expression is bad instead of that your thought is bad, and they will discredit your thought to some extent when it doesn't merit it.

A generalization to cover everything is impossible and impracticable. Generalizing in economics is thinking by sample not thinking by generalization. No possibility of a mechanical logic – you only have it for a sample case – not a general case.¹⁵

Finally, in a fascinating 1934 draft preface to the *General Theory*, Keynes gathered many of his themes together when he set out to say 'a little of what experience and reflection' had led him to feel about 'controversy between economists', as well as other matters. Hayek's shadow lurks in the background.

When we write economic theory, we write in a quasi-formal style; and ...this is our best available means of conveying our thoughts to one another. But when an economist writes in a quasi-formal style, he is composing neither a document verbally complete and exact so as to be capable of a strict legal interpretation, nor a logically complete proof. Whilst it is his duty to make his premises and his use of terms as clear as he can, he never states all his premises and his definitions are not perfectly clear-cut. He never mentions all the qualifications necessary to his conclusions. ...It is, I think, of the essential nature of economic exposition that it gives, not a complete statement, but a sample statement, so to speak, out of all the things which could be said, intended to suggest to the reader the whole bundle of associated ideas, so that, if

he catches the bundle, he will not in the least be confused or impeded by the technical incompleteness of the mere words which the author has written down, taken by themselves.

This means, on the one hand, that an economic writer requires from his reader much goodwill and intelligence and a large measure of co-operation; and, on the other hand, that there are a thousand futile, yet verbally legitimate, objections which an objector can raise. In economics you cannot convict your opponent of error; you can only convince him of it. And, even if you are right, you cannot convince him, if there is a defect in your own powers of persuasion and exposition or if his head is already so filled with contrary notions that he cannot catch the clues to your thought which you are trying to throw to him.

The result is that much criticism, which has verbal justification in what the author has written, is nevertheless altogether futile and maddeningly irritating; for it merely indicates that the minds of author and reader have failed to meet.... But, of course, this does not mean that all criticism is futile, and it is dangerous, I think, to be too wary of it. Moreover a candid author surely enjoys criticism which comes from a thorough understanding of his thesis. There is no greater satisfaction than in the exchanging of ideas between minds which have truly met, leading to further discoveries and a shift of view in response to difficulties and objections.

I ask forgiveness, therefore, if I have failed in the necessary goodwill and intellectual sympathy when I criticise... (*CW XIII* 469-71).

Thinking By Sample

What does Keynes mean by 'sample'? His meaning is somewhat ambiguous as it hovers between two senses, each reflecting a different part-whole relationship.

The first sense, that of the 1932-33 lectures, appears to be based on samples drawn from biological populations where the sample is a species and the population a genus. Sample selection is not random, however, but determined by the author to be representative or typical of the population as far as possible. Once the thinking for this sample has been grasped, it can then be applied, with or without modification, to other samples in the population. In this way, more generalised theories can be developed by extending the thinking to more subsets (or species) in the population.¹⁶

The second sense, that of the 1934 preface, is broader and looser, based on mere incompleteness without necessary reference to representativeness. In this sense, economists do not produce complete documents – their writings are *verbally* incomplete because they do not contain all the things which could be said, definitions are not perfectly clear-cut, and all necessary qualifications are not mentioned; and they are *logically* incomplete because they do not present complete proofs, and do not state all premises or required qualifications. What economists do produce are incomplete or sample statements, the aim of which is to suggest to the reader a whole bundle of associated but unstated ideas. Obviously, a representative sample in the first sense could do this, but so might an elementary or simplified version of a more complicated theory. The latter is not a sample drawn from a population but a rudimentary version of a larger entity.

For present purposes, I gloss over this ambiguity and take sample to embrace both senses. From this viewpoint, the essence of Keynes's remarks appears to be as follows.

Writers of economic theory should not, at least for innovative work, strive for complete expositions characterised by verbal comprehensiveness, exactitude in all matters, and deductive exhaustiveness. They should seek neither to dot all *i*'s and cross all *t*'s, nor to write defensively to meet all possible criticisms. Rather they should aim at a 'sample exposition' which, presented as clearly as the author is able, seeks to communicate by being either a representative exemplar, or a reduced version, of a larger bundle of associated ideas. Instead of delaying publication and scientific advance, this procedure encourages progress through the stimulation of numerous other minds. However, since various premises, conclusions and qualifications will be absent, the sample approach has the inherent weakness that its incompleteness can lead to criticism based on misunderstandings, wilful or otherwise. This is why criticism from a reader who has understood and caught the substance of what the author is trying to convey is enormously beneficial because it leads to better formulations and new discoveries.¹⁷

KEYNES'S UNDERLYING PRINCIPLES

Let me now summarise Keynes's position as regards the reading and writing of economics. On my reading, his position embraces the following elements, placed in rough logical order.

- (i) Pioneering, innovative work in economics is best promoted by publishing the initial expressions of such works;
- (ii) Authors have a duty to be clear and to eliminate mistakes and inaccuracies as far as possible, but without inordinately delaying publication;
- (iii) All economic works represent samples of larger sets of ideas, so that no work is ever complete in all respects;
- (iv) Inaccuracies, imprecisions and incompleteness are inevitably present in (innovative) works because not all premises or definitions are necessarily stated, what is said is only a sample of the author's full thinking, and they may not be polished for long periods;
- (v) Readers should exercise intelligence, goodwill and cooperation if they wish to understand the author's arguments, and also catch the bundle of associated ideas offered to them;
- (vi) Readers who do not exercise these capacities will find it easy to resist the author's arguments and raise objections, particularly verbal ones; and
- (vii) Authors interested in intellectual progress will welcome criticisms and suggested improvements from readers whose minds have connected with the author's.

From these elements, I think it is possible to distil a small number of principles which underpin his views on the writing and publishing of economics. I suggest five inter-related principles.

1. The Alpha Principle
2. The Sample Principle
3. The GIC Principle
4. The Progress Principle
5. The Deficiency Principle

1. The Alpha Principle

It is better to publish the initial or early expressions of novel ideas rather than delay publication by trying to perfect them, to discover all possible qualifications, or to incorporate them into larger treatises. The initial expression should seek to be basically correct, but not necessarily perfectly correct.¹⁸

2. The Sample Principle

The written presentation of an economic theory is never a complete statement of the theory but always only a sample statement which aims at being representative, illustrative or suggestive of the whole. While authors should be as clear as possible, readers should be aware that economic works inevitably contain absences – some important things may not be said, some premises may not be stated, some terms not completely defined, and some qualifications not mentioned.

3. The GIC Principle

Writers have an intellectual right to goodwill, intelligence and cooperation (GIC) from their readers, especially when presenting innovative work. It is the duty of readers to approach them with open minds rather than hostile minds so as to understand what the author is driving at, before presenting their assessments. Critics who are initially negatively disposed can always find something to quarrel over, but this may merely reflect the fact that the critic's mind is not interested in meeting the author's.

4. The Progress Principle

Scientific progress in economics is best served by relying on the cooperation of many minds rather than the effort of a few great minds, no matter how powerful. Cooperation will more quickly do the necessary work of identifying and removing deficiencies, providing premises, adding qualifications and making definitions more precise, all of which improve the exposition of a new contribution. As with the GIC principle, controversy and criticism are inevitably part of the process and should not be feared.

5. The Deficiency Principle

Authors have a duty to avoid deficiencies, especially gross ones, in their (alpha) works, but should not delay publication because of the presence of undetected deficiencies or the absence of defences against all possible objections. As a result, omissions, imprecisions and incompleteness will almost certainly be present in such works. The process of winking them out occurs after publication, through the combined efforts of many minds engaged in scientific discourse (including the author's).¹⁹

SOME IMPLICATIONS OF KEYNES'S VIEWS

Keynes's views are pregnant with implications, not only for understanding and interpreting his own works, but also for broader questions regarding writing and reading in economics and communication and progress in economic thought. There is clearly much that could be said here, but my discussion will be restricted to summary remarks on these two issues. In treating the former, I shall make the assumption, which I think well supported by the evidence (a few examples of which occur below), that the ideas or principles he advocated were those that, by and large, actually informed his practice. In effect, they constitute instructions from Keynes on how to approach his works if better understanding, rational discussion and scientific progress are our goals.

The alpha principle accepts that various faults, imprecisions and absences will inevitably be present in the first exposition of new ideas. Such works always require improvement, and while some parts may endure, other parts will undergo reformulation through critical scrutiny. This obviously has implications for the clarity of alpha works – at various points they may be incomplete, vague, poorly expressed, confusing, turbid, or internally inconsistent, all of which create degrees of freedom for readers to generate different

interpretations depending on their tussles with, and resolutions of, these deficiencies. For his own part, Keynes certainly believed that both his major economic works needed extensive improvement. He regarded the *Treatise on Money* not only as an artistic failure – ‘I have changed my mind too much during the course of it for it to be a proper unity’ (*CW XIII* 176) – but also as theoretically deficient because ‘I failed to deal thoroughly with...changes in the level of output’ (*CW VII xxii*).²⁰ Not long after publication of the *General Theory*, he explicitly acknowledged the need for its re-writing and re-casting. His plans included two books that were never written – a short explanatory sequel, ‘Footnotes to the General Theory’, and a grander ten or twelve volume treatise, ‘An Introduction to Economic Principles’ which was to integrate the ideas of the *General Theory* with microeconomics, economic policy and international issues.²¹

It is typical of alpha works that they challenge received opinion and arouse controversy. Unlike Marshall, Keynes was never afraid of declaring bold new ideas and engaging in debate. Despite Harrod’s pleas, he insisted on forcefully criticising orthodoxy in the *General Theory*, though he did allow that his critique may need modification as a result of being ‘too keen’ (*CW VII xxi*). As he emphasised in 1935, ‘I want, so to speak, to raise a dust; because it is only out of the controversy that will arise that what I am saying will get understood’ (*CW XIII* 548); he might also have added ‘and be given better expression’. However, since the great disadvantage of controversy is that it is ‘without end’, Keynes suggested in 1932 after a period of jousting, that a better way of spending his time was to withdraw from controversy so as ‘to re-shape and improve my central position’ (*CW XIII* 266).

The sample principle likewise explicitly acknowledges the need for further work. Incompleteness of exposition means that one can never say ‘It’s all in *x*’, where *x* might be Marshall’s *Principles* or Keynes’s *General Theory*. Revision, restructuring and extension are always on the agenda since samples are rarely sufficiently representative or incapable of further generalisation. For Keynes, orthodoxy itself was a sample statement whose faults lay, not in its superstructure, but in its foundations where ‘a lack of clearness and generality’ existed in its premises which caused it to be cast as a special case (*CW VII xxi*). Similarly, his own works are sample statements capable of development and expansion. Even his writings about writing economics are sample statements accompanied by deficiencies, which is why I have sought a rational reconstruction.²²

In addition, the sample principle affects clarity and interpretation. Both are impacted because, as a result of the absent elements, a sample may be suggestive of several different bodies of ideas, a fate which has evidently befallen the *General Theory*. The principle also highlights a further potent source of interpretative variety. Keynes’s propositions, that thought is larger than language and that words may be imperfect vehicles for conveying thought, place heavy demands on readers, especially readers of alpha works. They are asked not only to understand the thinking of the sample, but also to reach beyond the sample to grasp or intuit the larger bundle of associated ideas, all the while being provided only with the author’s words which may be unclear transmitters of meaning. This is fertile ground for differences in understanding and the growth of multiple interpretations.

The GIC principle states the minimum requirements for ‘good’ interpretations of a work, regardless of whether the reader finishes up sympathetic, neutral or hostile. Good interpretations focus on the ideas being expressed, and are not just preoccupied with the words, taken in isolation, chosen to express them. Only after one has cooperated with the author, to the best of one’s ability, to catch the substance of his or her ideas is one entitled to make a reasoned evaluation of the work’s strengths and deficiencies. The principle therefore

exposes another potent source of variety of interpretation. Lack of any one of the elements of goodwill, intelligence or cooperation (not always bountifully supplied within the profession) will lead to misunderstandings (intentional or otherwise) and hence variant interpretations depending on which attributes are missing.²³

Progress implies improvement which implies past or present deficiencies. To remedy such deficiencies, the progress principle relies on the collective effort of many minds engaged in common discourse. Unlike Marshall, Keynes thought it best if the truth, accuracy and careful thought necessary for scientific advance came, not from just a few supreme minds, but from the cooperation of many minds. As with much else in Keynes, the principle stresses both individuals and community. ‘It is astonishing’, he declared, ‘what foolish things one can temporarily believe if one thinks too long alone, particularly in economics’ (*CW VII xxiii*). A small but near perfect example of the principle was the Cambridge Circus of 1930-31, a group of younger Cambridge economists which discussed the *Treatise on Money*. Their dissections (alongside exchanges with Robertson, Pigou and Sraffa) soon exposed its shortcomings and, in close cooperation with Keynes, helped formulate important elements of the new system that emerged in the *General Theory* (*CW XIII* 337-43). Obviously, the GIC and progress principles do not preclude stringent critiques which tear arguments to shreds, but only after critics have made the necessary effort to understand these arguments.

Finally, while requiring authors to make every reasonable effort to avoid mistakes, the deficiency principle accepts the inevitability of a variety of faults in all works, and proposes their removal through the post-publication solvent of many minds. And since no document is deficiency-free, every document has the potential to beget more than one interpretation.

The remarkable thing about Keynes’s principles, taken individually and as a whole, is their frank and open acceptance of the presence of deficiencies in *all* writings in economics, and especially innovative writings. According to Keynes, this is inherent in the genre itself, so that, in the reading and writing of economics, issues of clarity and interpretation permanently envelop the discipline and hence all of its works, past, present and future.²⁴ And, in relation to Keynes’s own work, his principles tell us that all his theorising contains various inadequacies, faults and omissions that succeeding generations are invited to uncover and remedy. Readers undertaking this task may well commence with his texts, but a significant number of pages will be re-written and replaced on the journey ahead.²⁵

CONCLUSION

Previously, Keynes’s principles have been shrouded from view, partly because they were scattered across several works, buried in biographical essays and unpublished for decades, and partly because there has been little serious interest in Keynes as a writer. However, when collected together, they cast much light on the way in which all economic works are written, and hence on the way we should approach their reading and interpretation. In particular, they are enormously informative in relation to Keynes’s own writings and how they should be viewed. They indicate that, as monumental, fertile and thought-provoking as his writings are, they were all published as *works in progress*, composed *sub specie temporis*, and flung, as if pamphlets, to the wind.

Both friend and foe alike can find something in Keynes’s principles. Friends have his encouragement to carry on (sensibly) from where he left off, while foes can, at the very least, warm to the principle of goodwill, intelligence and cooperation that he advocated and practised in so much of his writing.

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ENDNOTES

¹ This paper was presented to the 17th History of Economic Thought Society of Australia Conference in July 2004 at the University of Western Australia. I would like to thank Craig Freedman, Peter Groenewegen and Mike White for helpful comments and suggestions. Advance apologies are tendered to any author whose relevant work has been neglected; the current conditions for research in many Australian universities are appalling, largely as a result of federal government policies.

² See O'Donnell (2004).

³ The following accounts are based on Keynes's views, as set out in his biographical essays. The accuracy of his portrayals, though a matter of interest and discussion, is largely irrelevant to my argument.

⁴ In this section, any unreferenced numbers in brackets refer to *Essays in Biography*, Volume *X* of *The Collected Writings of John Maynard Keynes* (Keynes 1971-89). Elsewhere, all references to the above *Collected Writings* take the form of *CW* followed by the volume number and page number.

⁵ Marshall always thought his first plan was the best plan but, even when his health recovered, he never fully returned to it. In broad terms, the actual order of publication of his works turned out quite differently. Appearing first was a jointly written popular work (1879), then, after long delay, the first volume (1890) of his comprehensive treatise which was projected as a two volume work but which never eventuated as such. Next came new editions of the first volume alongside a multiplicity of monographs, reports and other materials, many of which were included in his second major book, *Industry and Trade* (1919). His third major book, *Money, Credit and Commerce* (1923), finally printed some of his very earliest unpublished work.

⁶ The imprecision in the interval is due to variation in the choice of starting date.

⁷ Coase (1994: 120, 123-5, 128-9, 145, 148, 168) has made the point effectively that Marshall's fear of mistakes, criticism and controversy can be traced back to his father who was a despotic tyrant much given to severe physical chastisement, and that it was from the maternal side of his family that he apparently drew the inner strength necessary to oppose his father in his choice of career and university.

⁸ Groenewegen (1995: 150-1, 156-8, 162, 776-8) has argued that Marshall, in fact, did *not* have a marginal utility theory before reading Jevons's book, an argument that puts Marshall's review of Jevons's work in an entirely different light.

⁹ On Marshall's lecturing style, see also Groenewegen (1995: 313-7)

¹⁰ A telling indication of what Keynes meant by the 'tenuous world of bright ideas' is given by his footnote to this phrase: 'How disappointing are the fruits, now that we have them, of the bright idea of reducing Economics to a mathematical application of the hedonistic calculus of Bentham!' (184n5).

¹¹ This is an instance of the central theme of O'Donnell (2004).

¹² As Groenewegen (1995: 321) has noted, Mary Marshall remarked to Keynes that Alfred's habit of continual, painstakingly careful revision removed all the life and energy from his writing, and that the only exception to this was an 1884 article written 'in white heat' which was 'one of the best things he ever wrote'.

¹³ No doubt there were other formative experiences but, for present purposes, I concentrate on his clash with Hayek

¹⁴ The penultimate sentence in this passage is reproduced correctly from the handwritten document in the Keynes Papers, King's College, Cambridge. It would perhaps read better as 'catch the substance of what the writer is at'.

¹⁵ See Rymes (1987: B25, G7, J13) for Bryce, Fallgatter and Tarshis respectively.

¹⁶ Conceptually, Keynes's idea of a representative case appears to be somewhat different from Marshall's idea of a representative firm which is based more on an 'average' of all firms.

¹⁷ The previous discussion of alpha and omega works may be viewed as an attempt to get at the bundle of associated ideas lying behind the author's words. In this case, while the author's words present a sample (Jevons, Ricardo, Malthus), they also complicate matters by not always being well chosen for their task (eg. brochure, pamphlet, monograph, treatise).

¹⁸ Alpha works are concordant with the saying, often attributed to Keynes in other contexts, that 'It is better to be roughly right than precisely wrong'. They are also consistent with his remarks to Joan Robinson concerning the *Treatise on Money*: 'My own general reaction to criticisms always is that of course my treatment is obscure and sometimes inaccurate, and always incomplete, since I was tackling completely unfamiliar ground, and had not got my own mind...clear on all sorts of points. But the real point is not whether all this is so, as of course it is, but whether this way of thinking and arguing about the subject is right. And that is what I am grateful to you for defending and expounding' (*CW XIII* 270).

¹⁹ The distillation of these five principles is a further attempt to uncover, in part at least, the larger body of associated ideas behind his written remarks.

²⁰ For further remarks by Keynes concerning his own lack of clarity or good expression in relation to the *Treatise on Money*, see, for example, *CW XIII* 217, 219-21, 226, 234, 236, 243, 246, 255-6, 269-70, 273-7, 330, 335-6.

²¹ For further discussion, see O'Donnell (1992: 797-804). Unlike Malthus and Marshall, Keynes never produced subsequent editions of any of his books. As he explained to his publisher, 'my practice is not to have second editions. When I have got something further to say, I would rather have a new book' (Keynes to D. Macmillan, 18 March 1939).

²² For some of Keynes's remarks pertaining to the sample principle and the meetings of minds in a *Treatise on Money* context, see *CW XIII* 223, 236, 248, 252-3, 265, 270, 272-3.

²³ George Stigler could not be described a keen advocate of the GIC principle. According to Freedman (2004), he adopted an adversarial, hostile and ideological approach aimed at the misrepresentation and total destruction of the arguments of those who diverged from his version of economic truth (these including Sweezy, Galbraith, Means and Chamberlin).

²⁴ This point could be generalised to numerous other disciplines.

²⁵ Obviously, Keynes's principles provide no comfort for two ideologically opposed tendencies – the Keynes is (nearly) always right faction who defend (virtually) everything literally and to the death; and the Keynes is (nearly) always wrong faction for whom interpretation is but a preliminary to the demolition of strawpersons. If both camps embraced his principles, nothing would be lost except a clutch of prejudices.