

- Keynes, J.M. 1971- . *The Collected Writings*. Edited by D.E. Moggridge and E. Johnson. London: MacMillan and Co.
- Moore, G.E. 1903. *Principia Ethica*. Cambridge: Cambridge University Press.
- O'Donnell, R.M. 1988. *Keynes: Philosophy and Economics*. London: Macmillan and Co.
- Ramsey, F.P. 1931. "Truth and Probability," in *Foundations of Mathematics*.
- Winslow, E.G. 1986. "'Human Logic' and Keynes's Economics', *Eastern Economic Journal*, Vol. 12, No. 4, pp. 413-430.
- 'Human Logic' and Keynes's Economics: A Reply

'Human Logic' and Keynes's Economics: A Reply to Bateman

E.G. Winslow*

In reply to Professor Bateman, I will argue that his first point misinterprets both my argument and Keynes's 1931 review of Ramsey's *Foundations of Mathematics*, and that his second misinterprets the passage from the Edgeworth essay and overlooks the other evidence supporting the thesis that Keynes abandoned an atomic for an organic metaphysical description.¹

KEYNES AND RAMSEY

Bateman takes me to be arguing that Keynes's review contains evidence directly supporting the thesis that Keynes abandoned an atomic for an organic metaphysical description. This is not what I argue.

Keynes' 1931 review contains an account of a new field of study, human logic, defined as the analysis of the "useful mental habits [we have] for handling the material with which we are supplied by our perceptions and by our memory and perhaps in other ways, and so arriving at or towards truth (1972, p. 338)." The relevance of this account to my argument is that human logic includes, as part of its subject matter, the analysis of metaphysical premises. My paper was an examination of the possibility that Keynes's own studies in human logic led to his rejection of atomic in favour of organic metaphysical premises in the social sciences. The 1931 review does not contain material directly relevant to this question. Even the evidence that the analysis of metaphysical premises belongs to human logic is found elsewhere, in Ramsey's own account of its content (Ramsey, 1965, p. 200) and in Keynes's treatment, in his discussions of Tinbergen's early work in econometrics (1973C, pp. 285-320), of the study of metaphysical habits of mind as part of logic. The evidence that Keynes abandoned atomism for organicism is also found elsewhere, specifically, but not exclusively, in the essay on Edgeworth, in the discussions of Tinbergen, and in the treatment of interdependence in the *General Theory*.

Bateman has also misinterpreted the review. He has Keynes abandoning both the belief

*E.G. Winslow, Division of Social Science, York University, North York, Ont. M3J 1P3.

that the objective basis for degrees of belief is provided by logical probability relations and the belief in the existence of an objective basis. In fact, Keynes abandons only the first of these.

In place of the *Treatise on Probability's* logical theory of probability, Keynes (1972, p. 339) adopts Ramsey's view that degrees of belief are useful mental habits whose basis is "analogous to our perceptions and memories rather than to formal logic" and whose analysis belongs, therefore, to human logic. As his discussion of it demonstrates, however, Keynes believes human logic can provide objective grounds for the adoption of particular degrees of belief.

The review distinguishes human logic from descriptive psychology (1972, p. 339). The object of human logic is not, as it would be if degrees of belief had to be subjective, simply to describe the mental habits we employ; it is to tell us the mental habits we ought to employ. The distinction presumes there are objective grounds for preferring some habits to others.

Keynes (1972, p. 339) rejects Ramsey's claim that these grounds can be provided by pragmatism. Pragmatic justifications, as Ramsey himself admits (1965, p. 198), are circular. In rejecting the validity of pragmatic justifications, however, Keynes is not rejecting the conception of human logic as a field of study able to provide objective grounds for the adoption of particular mental habits. This is made clear by the review's concluding claim that "in attempting to distinguish a 'human' logic from formal logic on the one hand and descriptive psychology on the other, Ramsey may have been pointing the way to the next field of study when formal logic has been put into good order and its highly limited scope properly defined (1972, p. 339)." In my paper (1986, pp. 425-7) I pointed to evidence that Keynes moved to a conception of experience which enables direct acquaintance to provide the objective grounds pragmatism cannot provide.

ORGANIC UNITY AND ATOMISM

Bateman argues that we should interpret Keynes to be using the phrase "organic unity" with the meaning given to it by G.E. Moore in *Principia Ethica*. The effect of this, however, would be to make the passage from the essay on Edgeworth self-contradictory. The first sentence of that passage, as Bateman himself accepts, rejects the hypothesis that the social world consists of independent atoms.² Moore's definition of organic unity, however, is explicitly based on this hypothesis.

As I pointed out in my paper (1986, p. 428, note 4), Moore argued (1959, p. 33) that the atomic view of part/whole relations, the hypothesis that the nature of the part is independent of its relations to the whole, had to be adopted because the organic view, the hypothesis that the nature of the part depends on these relations, was self-contradictory. Consequently, his definition of "organic unity" excludes meanings which are inconsistent with the atomic hypothesis. The attribution of this definition to Keynes would, therefore, make the second sentence contradict the first.³

It seems to me to make more sense to interpret the second sentence to be a consistent elaboration of the first and, hence, to interpret the whole passage to be juxtaposing atomic and organic views of the social world. The context reinforces this interpretation. The passage is part of a paragraph explaining why "Mathematical Psychics has not, as a science or study, fulfilled its early promise (Keynes, 1972, p. 262)." As the context makes clear, Mathematical Psychics is to be understood in the general sense of "the application of quasi-mathematical method to the Social Sciences (1972, p. 256)." In the social sciences, as in physics, application of the method is rooted in acceptance of the atomic hypothesis. Keynes is claiming the application fails because this hypothesis breaks down in the social sciences.

This interpretation is also reinforced by the other evidence noted in my paper (1986, pp. 417-8 and 423-4), that evidence Bateman overlooked. In his discussions of Tinbergen (1973C, p. 300), for example, Keynes denies that the "habit of mind" of the social sciences can be derived, by analogy, from the physical sciences.⁴ In the *General Theory*, he adopts an organic view of interdependence (1973A, pp. 245-7) and, consistent with this, criticizes the use of mathematical methods in economics (1973A, pp. 297-8).

CONCLUSION

In summary, Bateman's first point misinterprets the role of Keynes's review of Ramsey in my argument. It also misinterprets the meaning of Keynes's inclusion of degrees of belief in the field of human rather than formal logic. His second point misreads the passage from the Edgeworth essay and overlooks the other evidence supporting the hypothesis that Keynes abandoned atomism for organicism.

FOOTNOTES

1. As Bateman points out, this aspect of Keynes has also been examined by Brown-Collier (1985) and Carabelli (1985). It is also discussed in Lawson (1985A and 1985B). These treatments did not come to my attention soon enough for me to be able to take account of them in my 1986 paper.
2. Bateman argues that this rejection of the atomic hypothesis in psychics is the foundation for Keynes's critique of Edgeworth's use of the frequency theory of probability. I am unable to see what support this gives to his conclusion that the passage does not juxtapose an atomic and an organic world. The argument itself, however, is based on the mistaken premise that Keynes asserts in *A Treatise on Probability* that the frequency theory would be justified in an atomic world, a premise Bateman has defended elsewhere (Bateman, 1987). What Keynes asserts in *Probability* is that the practical usefulness of statistical (and universal) induction "can only exist . . . if the universe of phenomena does in fact present those peculiar characteristics of atomism and limited variety which appear more and more clearly as the ultimate result to which material science is tending (1973B, p. 468)." This involves no departure from the logical theory of probability. Keynes claims that atomism and limited variety would make social and physical phenomena the outcome of circumstances similar to those of games of chance; they would approximate to what he calls "objectively chance" phenomena (1973B, p. 457). He argues that in these circumstances valid statistical inductions would be possible. Objective chance, however, is a "derivative type" of "subjective chance" (1973B, pp. 317-8). The latter, which "is fundamental," is "concerned with knowledge and ignorance"; its definition is based on Keynes's logical theory (1973B, p. 312).
3. There are, moreover, other reasons for not attributing Moore's definition to Keynes. Even in *A Treatise on Probability*, for example, Keynes treats the organic view of natural law as a consistent view (1973B, p. 277). Had he accepted Moore's argument, he would have rejected it as self-contradictory. (See also Winslow, 1986, p. 428, note 4.)
4. In contrast, *A Treatise on Probability* (1973B, pp. 468 and 458-9) had suggested that the hypothesis that the qualities of men are the product of "the collisions and arrangements of chromosomes" might provide an atomic hypothesis for psychics analogous to that provided for physics by the hypothesis that matter can be reduced to "the collisions and arrangements of particles, between which the ultimate qualitative differences are very few."

REFERENCES

- Bateman, Bradley W. (1987). 'Keynes's Changing Conception of Probability'. *Economics and Philosophy*, vol. 3 (No. 1), pp. 97-120.
- Brown-Collier, Elba K. (1985). 'Keynes' View of an Organic Universe: The Implications'. *Review of Social Economy*, vol. 43 (No. 1), pp. 14-23.
- Carabelli, Anna. (1985). 'Keynes on Cause, Chance and Possibility'. In Lawson and Pesaran (1985), pp. 151-80.

- Keynes, John Maynard. (1972). *The Collected Writings of John Maynard Keynes*, vol. X, *Essays in Biography*. London: Macmillan for the Royal Economic Society.
- _____. (1973A). *The Collected Writings of John Maynard Keynes*, vol. VII, *The General Theory of Employment, Interest and Money*. London: Macmillan for the Royal Economic Society.
- _____. (1973B). *The Collected Writings of John Maynard Keynes*, vol. VIII, *A Treatise on Probability*. London: Macmillan for the Royal Economic Society.
- _____. (1973C). *The Collected Writings of John Maynard Keynes*, vol. XIV, *The General Theory and After: Defence and Development*. London: Macmillan for the Royal Economic Society.
- Lawson, Tony. (1985A). 'Uncertainty and Economic Analysis'. *Economic Journal*, vol. 95 (December), pp. 909-927.
- _____. (1985B). 'Keynes, Prediction and Econometrics'. In Lawson and Pesaran (1985), pp. 116-33.
- Lawson, Tony and Pesaran, H. (1985). *Keynes' Economics: Methodological Issues*. London: Croom Helm.
- Moore, G.E. (1959). *Principia Ethica*. Paperback edition. Cambridge: Cambridge University Press.
- Ramsey, F.P. (1965). *The Foundations of Mathematics*. Paperback edition. Totowa, New Jersey: Littlefield, Adams & Co.
- Winslow, E.G. (1986). 'Human Logic' and Keynes's Economics'. *Eastern Economic Journal*, vol. 12 (October-December), pp. 413-30.