Economics as a Systems Science.

Emery, June 96.

Notes on Heilbroner & Milberg.
(Heilbroner, R. & W. Milberg. 1995. *The Crisis of Vision in Modern Economic Thought*. Cambridge (Eng.): C.U.P.)

1. By 'vision' they apparently mean what Pepper spelt out a World Hypothesis. If they had drawn on Pepper they would have realized that the dominant world hypothesis in modern economics is Formism. There is a good deal of terminological borrowing from the Mechanist hypothesis but that is no more than window dressing. Unlike the physical sciences they do not root their concepts in empirical, testable realities (c.f. FSC Northrop and Emery on Policy, 1993).

2. The vision of modern economics is based on abstract universals, nomologically defined. Thus 'a market is an ideal place which always clears itself' because we agree that that is what we mean by market.

This should be compared with Chein's statement, "It follows from our conception of the evolution of scientific definitions that an argument with regard to a definition is not merely a quibble over words; not if the definition is regarded (as it should be) as the best possible summary, in the light of available knowledge, of the essential nature of a real referent..." (Behavior theory..)

3. The foundational model is that of choice under conditions of scarcity. When Keynes tried to shift the emphasis to choice under uncertainty this was quickly dropped. In the former, scarcity acted like the physical concept of pressure and required no reference to time except possible in the derivative concept of time to reach an equilibrium state. (derived from the magnitude of the initial gap and some coefficient of expansion peculiar to the specific material or market). The Keynesian notion of uncertainty intrinsically involved time and novelty as the uncertainty was of a future state which could turn out to be significantly different. This notion would play havoc with the apparatus of formal analysis developed by economics because that framework was premissed on a closed spatial system within which nothing new emerged. If the authors had followed up Eichner's reference to *On Purposeful Systems* (Ackoff & Emery,1972) they would have realized that the economists model of human choice ignores the parameter of Probability of Choice and hence have no conceptual grasp on Prob. of Outcome. Little wonder that their recent theory of rational expectations was found lacking, even by economists.

4. Economic theory asserted that individual choices could be assumed to be summative, as in a linear system. Keynes insisted that aggregative demand was a key to understanding large economic systems. This was distinctive from the summation of demand insofar as takes into account inter-sectorial exchanges. If pushed further it would involve us in non-linear systems with consequent effects of attenuation and amplification. J.R. Hicks pointed to the superficial similarity of the curves that could be said to represent the two levels of reality. Samuelson published those two curves in two separate treatments of micro and macro economics in the one volume as if that represented effective integration!

5. What was anathema to economists was Keynes' assumption that a capitalist economy is inherently unstable in that it inevitably led to shortfalls in expenditure flows (H & M,p64).

6. the crucial criticism of economic theory does not centre upon 'rationality' and 'utility'. The concept of income comes first as it necessarily is an ABX relation and should not be assumed to be an AX relation (p84).

Emery, F.E. (1993). Policy: Appearance and reality. Ch 6 De Greene, Kenyon B, *A systems-based approach to policymaking*. Kluwer Academic Publishers