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Whatever Happened to the Cambridge Capital Theory Controversies? (2003)*

with Avi J. Cohen

Preliminaries: Joan Robinson’s complaints

In ‘The Production Function and the Theory of Capital’, Joan Robinson (1953–1954, p. 81) wrote:†

...the production function has been a powerful instrument of miseducation. The student of economic theory is taught to write $Q = f(L, K)$ where $L$ is a quantity of labor, $K$ a quantity of capital and $Q$ a rate of output of commodities. He is instructed to assume all workers alike, and to measure $L$ in man-hours of labor; he is told something about the index-number problem in choosing a unit of output; and then he is hurried on to the next question, in the hope that he will forget to ask in what units $K$ is measured. Before he ever does ask, he has become a professor, and so sloppy habits of thought are handed on from one generation to the next.

Her article precipitated into the public domain the Cambridge controversies in capital theory, so-called by Harcourt (1969) because the protagonists were principally associated directly or indirectly with Cambridge, England, or Cambridge, Massachusetts. The controversies raged from the mid-1950s through the mid-1970s, with highly prominent protagonists – Piero Sraffa, Joan Robinson, Luigi Pasinetti and Pierangelo Garegnani in the ‘English’ corner, versus Paul Samuelson,

Robert Solow, Frank Hahn and Christopher Bliss in the ‘American’ or neoclassical corner\(^1\) – slugging it out in first-rank journals such as the \textit{Quarterly Journal of Economics}, the \textit{Review of Economic Studies} and the \textit{Economic Journal}. Blaug (1975) and Harcourt (1972, 1976) cover both sides of the controversy.

The Cambridge controversies, if remembered at all, are usually portrayed today as a tempest in a teapot over anomalies involving the measurement of capital in aggregate production function models, having as little significance for the neoclassical marginal productivity theory of distribution as do Giffen good anomalies for the law of demand. When theories of endogenous growth and real business cycles took off in the 1980s using aggregate production functions, contributors usually wrote as if the controversies had never occurred and the Cambridge, England contributors had never existed. (Robinson and Sraffa obliged by dying in 1983.) Since neoclassical theory has survived and the challengers have largely disappeared, the usual conclusion is that the ‘English’ Cantabrigians were clearly wrong or wrong-headed.

Did the Cambridge controversies identify ‘sloppy habits of thought’ that have been handed down to yet another generation, or were they a teapot tempest of concern now only to historians of economics? In this article, our aim is to put into perspective what was at stake and to argue that the controversies were but the latest in a series of still-unresolved controversies over three deep issues. The first is the meaning and, as a corollary, the measurement of the concept of capital in the analysis of industrial capitalist societies. The second is Joan Robinson’s complaint that equilibrium was not the outcome of an economic process and therefore an inadequate tool for analysing processes of capital accumulation and growth. The third issue is the role of ideology and vision in fuelling controversy when the results of simple models are not robust. Our aim is to convince the reader of the importance and relevance today of these issues, which, we predict, will inevitably erupt in future controversy.\(^2\)

**Round 1: meaning and measurement of capital in the scarcity theory of price**

With the marginal revolution, Jevons, Menger and Walras developed pure exchange models in the 1870s that shifted the explanation of price away from the classical difficulty-of-production focus to the neoclassical focus on utility and relative scarcity. Adam Smith’s diamond–water paradox was no longer a paradox, since price was explained as proportional