Neil Hart ***Equilibrium and Evolution: Alfred Marshall and the Marshallians*****. London: Palgrave, 2012. ISBN 978-0-230-30270-9. £65 hardback.**

Paul Samuelson and Joan Robinson disagreed on much, yet they were in agreement on Marshall's treatment of long-run supply in his *Principles*. Marshall, so Robinson argued, worked out forward movements with great clarity and then filled the book with tear-gas so that the reader would not notice the holes in the argument. However, rather than following Robinson and speaking of trying to see through the tear gas, it has become more common to cite Samuelson's argument that the task confronting economists in the inter-war period was to get Marshall out of the way. Marshall contributed many new concepts to economic theory but was, in Samuelson's view "confusing and confused".

In recent years, a substantial literature has emerged, that will be familiar to readers of the *Marshall Studies Bulletin*, that challenges this position, arguing instead that Marshall was presenting a much more sophisticated evolutionary theory, deliberately not confining his conclusions to those that followed from his mathematics. This "new view" of Marshall draws extensively on unpublished writings of which earlier generations were unaware, in particular his early papers on psychology and his historical notes. These new discoveries are not strictly necessary for seeing a Marshall that was obscured by the Robinsonian and Samuelsonian critiques of Marshall—for example, Denis O'Brien long ago offered a defence of Marshall that is in important respects consistent with the "new view". The work of Becattini, Dardi, Groenewegen and, above all, Raffaelli (2003) and Cook (2009), much of which is summarised in Raffaelli, Becattini and Dardi (2006), represents a considerable extension of our understanding of what Marshall was trying to achieve.

This is the background to this new study by Neil Hart whose study of Marshall and his successors, which originated in a thesis supervised by Peter Groenewegen. After an Introduction in which Hart outlines his argument, the book starts with a chapter on Marshall's intellectual development that, drawing extensively on recent work by Raffaelli and Cook, provides a clear account of Marshall's engagement with evolutionary psychology and with Hegel's philosophy of history. The reader will find here a concise account of Marshall's earliest papers, written for the Grote Club in the late 1860s, that has the advantage of being more accessible than the much more detailed accounts available elsewhere. This background helps Hart to make sense of Marshall's sometimes puzzling statements about methodology. Marshall's delay in publishing his major work is attributed to his engagement with methodological problems that he could not adequately solve.

This is the prelude to what is arguably the central chapter in the book, on Marshall's "Economic biology". After a brief discussion of Marshall's economic history, and his engagement with William Cunningham, the discussion tries to set Marshall's ideas in the context of evolutionary biology as it was understood in his day, not judging it in the light of modern ideas about evolution. Drawing upon, amongst other sources, Groenewegen's (1995) biography Hart argues that Marshall engaged seriously with biology, following the latest developments in the field. Reliance on the ideas of Herbert Spencer, did not, as is sometimes assumed, indicate a naive approach to evolution, for Spencer's theory was less simplistic than it is commonly assumed to be, and not inconsistent with some Darwinian ideas. There were, Hart contends, strong Darwinian elements in Marshall's theories, notably in his discussion of industrial organisation, the main area in which biological arguments were deployed. It is crucial, Hart argues, that Marshall's arguments about increasing returns, covered in some detail in a discussion that extends to *Industry and Trade* as well as the *Principles*, are viewed in the context of his evolutionary economic biology.

This chapter is important because it sets the scene for the chapters where Hart tries to go beyond the existing literature by re-examining the controversies of the late 1920s and early 1930s, the so-called "cost controversy" in the light of this new view of Marshall. Central to the argument is Marshall's "reconciliation problem". The traditional view is that this was the problem caused by the incompatibility of the most important categories of increasing returns with perfect competition, a problem in static equilibrium theory. In subsequent controversy, various solutions were proposed: Marshall's alleged solution of returns to scale that were external to the firm but internal to the industry would not work because such returns were hard to identify; two other solutions were to turn to monopoly and to bring in dynamics. In contrast, Hart tells the story of the cost controversy through the lens of a different reconciliation problem, namely that of reconciling evolution with equilibrium. In doing so, he provides an account that is more comprehensive than others of which I am aware, in that he goes back beyond John Clapham's "empty economic boxes" to the controversy between Cunynghame, Edgeworth, Pigou and Marshall. Throughout he brings in a wider range of British economists than many accounts of the controversy.

The result is that where Samuelson and others have read "getting Marshall out of the way" to refer to cutting through Marshall's confusing stance on increasing returns and competition, Hart interprets it as moving away from Marshall's evolutionary approach to a static theory. This is not a completely new perspective. Observers from Shove to O'Brien have noted that there was a fundamental difference between the equilibrium theory of Pigou, Robbins and Robinson and the Marshallian theory of the firm to which Marshall's representative firm was the solution. On the other hand, Hart correctly makes this aspect of the cost controversy much more prominent than it has often been.

Perhaps the most important chapter is the one on "The professionalisation of economics and 'Marshall's theory'", for this is where Hart tries to explain why misinterpretation of Marshall was so widespread. Engaging with the literature by, *inter alia*, Maloney and Coats on Marshall's role in the professionalisation process, and the appointment of Pigou as his successor in the Cambridge Chair, he presents the "Marshallian" era as one chararacterised by great variety in economic theory rather than one of neoclassical dominance. The relationships and friendships Marshall developed were not, Hart points out, "closely connected to any shared intellectual or doctrinal perspectives" (p. 161). This was illustrated by his support for Pigou over Foxwell where he supported the candidate who was less comprehending of his own approach. The desire to create a professional, scientific economics over-rode the objective of building an evolutionary economics. Arguing that there he was pulled in contradictory directions by his aims of creating an economics profession and building a body of scientific economic knowledge is a fascinating argument.

However, whilst Hart makes many useful points, notably drawing out the negative implications of Marshall's well-known distaste for public controversy, I remain sceptical about whether such a strong conclusion can be drawn. Hart presents a Marshall who appears, at least to me, implausibly blind to the consequences of his own decisions, failing to see the consequences of supporting those who would develop economics in directions opposed to his own. Moreover, allowing personal friendships and animosities to get in the way of building a body of scientific economic knowledge is surely a sign of weakness if not moral failure, though it would justify the claim Robinson once made that the more she learned about his economics, the less she liked his character. Pigou's approach to economics was certainly different from Marshall's, but they had much in common and their shared views could perhaps be more fully explored. Moreover, it is important to pay more attention to the very early Pigou, to establish more clearly how he would have looked to Marshall in 1908.

Unlike many accounts of the cost controversy, Hart does discuss developments in the United States. An interesting feature of his account is the chapter in which he discusses Frank Knight, Joseph Schumpeter and Allyn Young, making it clear that Young's widely discussed paper on increasing returns was far from the isolated discussion of this topic that it is sometimes presented as being. It was a contribution to a much broader debate over dynamics and equilibrium. However, though this chapter is useful, I still think the book focuses too much on British debates (even leaving aside Continental European literature). Most notable is the omission, aside from a single footnote, of any discussion of Edward Chamberlin, whose book on monopolistic competition was published in the same year as Robinson's, and whose theory was often incorrectly identified with hers. This footnote correctly makes the point that Chamberlin's doctoral thesis was independent of the cost controversy. However, despite noting the possibility that it was prompted by the awareness of his supervisor, Young, that perfect competition was inconsistent with economies of scale, Hart neither explores the possible connection with Marshall (who had extensive American contacts) nor the full American context out of which Young's and Chamberlin's work emerged. It may be correct that Marshall was not interested in developing a theory of market structure, but the fact that Chamberlin sought to make Marshall's theory more realistic rather than to turn it into an equilibrium theory, a point noted many years ago by O'Brien, is surely worth discussion. The point is not that Chamberlin is part of the cost controversy but is that the cost controversy itself was part of a wider series of debates about how to proceed from Marshall who was very influential in the United States. For example, Hart traces the U-shaped average cost curve back to an article by Edgeworth on railway rates in 1913. Though he notes that this was only its first appearance in English, he neither explores possible connections with the non-English literature nor notes that the controversy over railway rates was Chamberlin's starting point.

The effect of Hart's position is to protect the content of Marshall's evolutionary economics from the charge of failure. It can be argued that Marshall failed in the sense that, with notable exceptions, such as Robertson, his successors largely failed to build on his attempt to create a body of economic knowledge grounded in biology rather than mechanics. By claiming that this failure arose from a conflict between his twin goals of professionalisation and developing an evolutionary economics – from the fact that "Marshall did very little to actively promote the pursuit of his biological Mecca amongst his disciples" (p. 189), Hart is able largely to dissociate the Marshallian failure (if it was a failure) from the content of his theory. This leaves him free, at the end of the book, to suggest that Marshall's evolutionary economics might form the basis for a new economics based on Marshall's biological analysis. There is a sense in which it was Marshall, not Marshall's theory, that was inadequate to the task.

Whilst I would not want to dispute the insightfulness of Marshall's theory, perhaps the limitations of his attempt to develop a biologically grounded economics deserve more attention. It may be correct to argue that Marshall did not wish to develop a theory of market structure but perhaps that is part of the problem: perhaps "fudging" the question of market structure, as Robinson put it, *was* a problem. The development of economic analysis requires not simply insights into how the world is but techniques for developing those insights into a body of knowledge that can be applied to problems that need solutions. Is it not possible that sorting out theories of market structure, as Chamberlin did much more effectively than Robinson, was necessary for developing those techniques? Perhaps Pigou was led away from the framework Marshall had laid out in his *Principles* and *Industry and Trade* as much because he was searching for workable techniques as because he was out of sympathy with the goal.

Hart appears to presume that a biological economics that builds on Marshallian ideas will be heterodox, reversing the wrong turning that Robinson took in the 1930s. The work of Nelson, Winter, Hodgson and Metcalfe may well offer ideas that contribute towards this goal but so too may economists who seem more mainstream, or even neoclassical, and less heterodox (to use three terms that are more problematic than Hart's admittedly occasional use of them suggests). Though much is made of Samuelson's characterisation of the cost controversy as getting Marshall out of the way, Hart's fails to note that Samuelson was one of the few modern economists to engage seriously with evolutionary biology, publishing a series of articles on mathematical biology in 1970s and 1980s. Is there not a paradox here that might be explored?

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