The Suppression of Evolutionary Approaches in Economics: The Case of Marshall and Monopolistic Competition

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“A discipline, a region of the world of thought should seek to know itself. Like the individual human being, it has received from its origins a stamp of character, a native mode of response to the situations confronting it. Right responses, “responsability” will require of the profession as of the individual an insight into the powers and the defects of the tool which history has bequeathed to it” (Shackle 1972, p.24).

Introduction: Evolutionary Approaches in Economics

The inspiration that Charles Darwin is said to have received from Thomas Malthus’s work on population questions, as well as from the broadly evolutionary social theorizing of the Scottish Enlightenment, when groping towards the theory of natural selection, is well-known (Jones 1980). He thus continued a tradition of cross-fertilization between the sciences of the biological and the sciences of society that can be said to have started with Bernard Mandeville taking the bee-hive as model of society. And Darwin in his turn was to provide tremendous inspiration for a school of social scientists and moralists, later to be dubbed “social Darwinists”. Today this cross-fertilization is alive and well, biologists adopting the social scientists’ game-theoretic tools for the analysis of animal conflict, and social scientists turning increasingly towards theories of cultural evolution and showing increasing interest in the provocative works of sociobiologists.

Given the fact that economists were among the early sources of inspiration for the emerging theory of natural selection, and given the fact that competition in the marketplace has always been something of a paradigmatic example of “struggle for existence”, one should perhaps have expected economists to be among the social scientists most enthusiastically adopting results from evolutionary biology and endorsing evolutionary modes of thought. Sifting through the pages of an advanced modern formal economic text-book will quickly dispel such expectations, however. One seeks in vain for anything that can properly be said to constitute an evolutionary model.

The role reserved for evolutionary reasoning in economics methodological: To provide a justification of the Friedmanite “assumptions-don’t-matter”-thesis (Friedman 1953) in a specific context. More precisely, to undergird the notion that in the long run behavioral forms will converge towards maximizing, those forms that failed to do so having been selected out in the process. And aside from methodology, evolutionary reasoning enters economists’ explanations almost exclusively in the form of what Nelson/Winter (1982) call “appreciative theory” (as distinct from “formal theory”): The unformalized story-telling that accompany the economist’s explanation to the outsider. The sort of explanation, in short, that is the domain of the bread-and-butter-economist, or the defender of Friedmanite instrumentalism.

Going back approximately one hundred years in the history of economic doctrines will confirm that such a subordinate role was not always the one allotted to evolutionary reasoning. In a famous article, Thorstein Veblen (1898) castigated contemporary marginalist economics for its supposedly Newtonian slant, calling for an evolutionary economics. As has often been pointed out, he chose the wrong target for his aggressive verbal gymnastics, namely the Austrians, who were certainly the most processual in their theorizing among contemporary marginalists, those who, in other words, could most appropriately be said to have presented rudiments of evolutionary reasoning. What is, furthermore, interesting about the context of Veblen’s article is that a work that could in many respects be said to have honored Veblen’s call for an evolutionary economics had in fact appeared eight years earlier: Alfred Marshall’s Principles of Economics.

Economic folklore has it, however, that Marshall constructed what has been passed down as price theory - at least of the “intermediate” species - virtually from scratch. It is to Marshall that we owe the graphic instrumentarium of basic price theory, with its temporal distinctions, cost curves, etc. In addition to such heuristics, we owe the concept of perfect competition and pure monopoly and their graphic
representations to Marshall. And this folklore is often accompanied by the belief that Marshall supplied the explication of cost- and supply-curves to the larger neoclassical edifice, Jevons, Menger and Walras having on the whole neglected the supply side. Over the last two decades, the original marginalists have, however, been "de-homogenized" (Jaffé 1976): It has become increasingly clear that their respective doctrines were different in many dimensions. This paper can be said to extend this de-homogenization somewhat, with particular reference to Alfred Marshall. Our de-homogenization exercise will not contrast Marshall with other contemporary marginalists, however, but rather with later generations' interpretation of Marshall's economics. Focusing on the role of the representative firm in Marshall's theorizing we will obtain an indication of the extent to which evolutionary reasoning can be said to be present in Marshall's work ("Marshall and the Representative Firm"). The original Marshallian meaning of the representative firm was to be twisted and transformed in theoretical developments on the British price-theoretical scene in the 1920's and 1930's. And it is precisely in the fate that Marshall's representative firm suffered that we will be able to diagnose one dominant reason why evolutionary reasoning lost the grip it once had in the economics profession.

Recent work on the theory of path-dependency has shown how small early historically events may lock-in a social development course on a potentially suboptimal path, from which it cannot escape except without very high social costs (Arthur 1988; David 1985). On the intellectual level, it was precisely small events in the history of economic doctrines - particularly the theory of monopolistic competition - that were responsible for the lock-in of economics (or rather: the theory of the firm) on an intellectual trajectory in which evolutionary reasoning had no role to play ("Post-Marshalian Developments"). This lock-in, furthermore, had the effect that important potential explananda for economics - particularly the process of technological change - were for a very long time excluded from the menu of explananda that could legitimately be addressed with economic tools. Or at least, these explananda could only be addressed with strong affronts to realism. With respect to problem-solving capacity, then, the intellectual standard that was locked-in in the early 'thirties was definitely suboptimal.

Marshall and the Representative Firm

Although Marshall's Victorian admiration for results from the evolutionary biology of his day is a generally acknowledged fact (Jones 1980), as well as easily confirmed by a cursory reading of Principles - the exact status and role of evolutionary reasoning in Marshall's thought is somewhat more controversial. At one extremum of the interpretive spectrum we find Loasby's (1989) claim that Marshall's theorizing was indeed genuinely evolutionary in nature. And at the other end, we confront A.L. Levine's (1980) open irritation over Marshall's "biological folklore", "fantasia" and "near-mystique", all of which finds its crescendo in that biological folk-tale which is the lifecycle of the firm (p.269). Here is one of Marshall's discussions of "that biological folk-tale" in operation:

"...the very conditions of an industry which enables a new firm to attain quickly command over new economies of production, render that firm liable to be supplanted quickly by still younger firms with yet newer methods. Especially where the powerful economies of production, on a large scale are associated with the use of new appliances and new methods, a firm which has lost the exceptional energy which enabled it to arise, is likely ere long quickly to decay; and the full life of a firm seldom lasts very long" (Marshall 1925, p.287).

And a little later, we confront the more explicitly "biological" "trees in the forest"-analogy:

"...we may read a lesson from the young trees in the forest as they struggle upwards through the benumbing shade of their older rivals. Many succumb on the way, and a few only survive; those few become stronger with every yea, they get a larger share of light and air with every increase of their height, and at last in their turn they tower above their neighbours... One tree will last longer in full vigour and attain a greater size than another; but sooner or later age tells on them all... And as with the growth of trees, so was it with the growth of business as a general rule before the great recent development of vast joint-stock companies, which often stagnate, but do not readily die" (ibid., p.316-316).

Although this imagery has often been ridiculed (e.g. Peirce 1952), a standard interpretation of the theoretical role of Marshall's life-cycle theory of the firm has arisen over the last decades, stemming in essence from Gerald Shove's (1942) centenary article. The background for this interpretation was the "Empty Economic Boxes"-debates on the analytical meaning and empirical significance of Marshall's discussion of returns of scale, sparked off by Clapham (1922), culminating in Sraffa (1926), and continued in the
famous “increasing returns-symposium” in The Economic Journal 1930. Stora far pointed out, of course, that competitive equilibrium is totally incompatible with increasing returns. The problem with this - in an exegetical sense was that Marshall had not postulated horizontal average-revenue-curves, but had nevertheless insisted on analyzing “competition”.

Marshall himself had been very well aware of the problem that Stora highlighted; ‘there is more than one discussion in Principles of a firm enjoying increasing returns of scale (e.g. 1925, p.459n). The problem for Marshall, however, was to combine ‘increasing returns with some notion of “competition”. The rational reconstruction of this “reconciliation exercise” (Levine 1980) usually proceeds in terms of a) external economics, b) Chamberlinian product-differentiation, and c) the life cycle -theory of the firm (Shove 1942).

The point about external economies is easily summarized: By placing the burden of increasing returns on the systemic interaction of groups of firms in networks generating positive technological externalities - it was possible to maintain that individual firms were characterized by only constant returns to scale (Marshall 1925, p. 284,615), thus preserving "competition”. Pigou (1928) gave a rigorous geometrical explication of this aspect of "the reconciliation exercise”.

The concept of competition that was adequate to Marshall’s intentions was not, in Shove’s (1942) interpretation, a “numbers” concept per se. Rather, Marshallian competition is a matter of product differentiation, and Marshallian equilibrium a Chamberlinian “group equilibrium”, where the outputs of individual firms are “adapted to special tastes”, and therefore “produced on a small scale” (Marshall 1925, p. 357-358), but where “...the force of advertising keeps many rivals in the field for a long time” (ibid., p. 392).

And then, finally, we have the life cycle-theory of the firm, an idea that in lieu of an economic theory of economic organization - suppying a rationale for the organizational lethargy so essential to Marshall’s argument - to later generations of formal economists could only be interpreted as a typical manifestation of that typical Marshallian methodological malady: The ad hoc-elevation of quasi-empirical generalizations to the status of theoretical propositions of significance and depth.

It is clear from the foregoing that what is necessary-and analytically permissible within the boundaries marked off by the neoclassical theory of the firm for a “reconciliation” of increasing returns and “competition” is strictly speaking Chamberlinian product-differentiation only. But this is precisely the conclusion that the theorists of monopolistic competition drew from Stora’s “abandon the path of free competition and turn in the opposite direction, namely towards monopoly” (1926, p.187). What, then, is new and interesting in the conventional rational reconstruction of Marshall’s “reconciliation” of increasing returns and “competition”?

A perhaps better understanding of Marshall’s intentions may be obtained by interpreting him as a genuinely evolutionary theorist. Here we should remind ourselves of the basic mechanisms of evolutionary change. These are the principle of variation, that members of a population differ with respect to at least one characteristic with selective significance; the principle of heredity, that there exist copying mechanisms to ensure continuity over time in the form of the species under investigation; and the principle of selection, that some forms are better fitted to environmental pressures and thus increase in relative significance.

The illegitimacy of transferring these concepts uncritically to the social domain is well-recognized among economists, who have usually (though not always) guarded their analogues to variation / mutation (innovation), heredity (the firm as a repository of knowledge, imitation of successful behavioral rules), and selection (competitive market selection) (Downie 1958; Winter 1975; Nelson/Winter1982) with strong reservations. Without entering into a detailed discussion of the precise equivalents in Marshall’s (or other economists’) work to the above mentioned basic evolutionary concepts, we may note that Marshall has at least one clear analogue, namely an analogue to the principle of variation; a concept that underlay his “trees in the forest”- story (which is, of course, a rudimentary selection-story).

Marshall’s analogy, then, is his analytical starting point in a concept of the industry that allows variation among firms with respect to the allocation of entrepreneurial competence, cost structure and innovative performance. It is basically the inclusion of this variety that motivates that Marshall’s concept of industry equilibrium has no room for an equilibrium firm; long run industry equilibrium is a matter of equality between aggregate market demand and supply only. There is simply no pretension that individual firms are in equilibrium.

Analytically, this may be represented by a conventional statistical instrumentarium, defining the population of firms in terms of a probability distribution and its characteristic moments (Downie 1958). Marshall’s long run-equilibrium is not, however, stationary in terms of the individual firms composing it; organizational birth, sclerosis and
death is an integral part of this equilibrium. Marshall’s problem was then to reason analytically under such circumstances.

Enter the representative firm. The representative firm was the analytical device that Marshall employed to handle complexity. And to a very large extent it is under the impact of attempts to understand the analytical meaning and significance of this concept - and very much so in the process of transformation that this concept underwent that the embryonic evolutionary theorizing in Marshall’s work was suppressed. Briefly, it was “the new establishment in value theory” (Shackle 1967)-best represented by the theorists of monopolistic competition - which in the course of attempts to give clear meaning to the concept of the representative firm thoroughly twisted this and transformed it into the concept of the uniform equilibrium firm. Furthermore, the industry came to be defined as a collection of totally identical equilibrium firms. And this analytical innovation was totally inconsistent with any meaning that can plausibly be ascribed to an evolutionary conceptualization of market activity. But not only came a change in analytical approach. This change arose in tandem with changes in the explanatory tools that could be addressed with price-theoretical tools.

There was a substantial Kuhnian “loss of content”. Such Marshallian themes as entrepreneurship, growth of firms, internal organization, etc., became relegated for decades from the universe of discourse of formal economic theory. Strange story, isn’t it? Let’s see how it happened.

Post-Marshallian Developments: The Elimination of Evolutionary Approaches

The most analytically problematic of the concepts making up the total Marshallian edifice was the supply-curve (Sraffa 1926; Robinson 1933). The difficulties stemming from this concept were basically a manifestation of Marshall’s attempt to handle fundamental variety among firms, in terms of their products, age, internal organization, innovative capabilities, etc. Since every firm in a given industry at a given point of time was at a particular stage of its life cycle, having acquired “a special market” for its products etc, one could not in general “...regard the conditions of supply by an individual producer as typical of those which govern the general supply in a market” (Marshall 1925, p.459).

It is this element of variety among firms that motivated the introduction of the representative firm, that firm which has cost of production equal to the industry average in long run equilibrium, is of average size, and earns “normal” profit. The representative firm is a heuristic fiction, not to be found in any given industry, but what exactly is its analytical significance? Is it merely a statistical summary measure? Or does it have analytical significance, as e.g. a device for comparative static analysis, knowledge of the cost structure of the representative firm allowing qualitative predictions about the average industry response when changing e.g. industry demand? This is, as Lionel Robbins (1928) pointed out, unclear.

What can be said about the representative firm, however, is that it served as a conceptual bridge between Marshall’s dynamic conception of firms and his static industry concept. The total population of firms may be static, individual firms, however, constantly change: “...firms rise and fall, but .. the representative firm remains always of the same size” (Marshall 1925, p. 367).

Marshall’s conception of the representative firm became virtually eliminated by two articles published in the same year, Robbins (1928) and Pigou (1928). Robbins pointed out, as mentioned, the unclear analytical status of the representative firm. But more fundamentally, he made clear that (general) equilibrium was not inconsistent with variety among firms. The obvious implication - which Robbins did not, however, make - was that Marshall’s long run-equilibrium was an equilibrium composed of equilibrium firms.

Pigou (1928) came closer to this. He made clear that for the purposes of comparative static analysis, Marshall’s analytical starting point in a population of heterogenous disequilibrium firms - a “state of things the direct study of which would be highly complicated” (ibid., p.239) - was strictly speaking totally unnecessary. In order to understand this “state of things” it was necessary to make references to individual firms” preceding histories of innovation, their preceding strategic interaction, the allocation of entrepreneurial competence in the population of managers etc. Pigou insisted on the possibility - and desirability - of eliminating this analytical complexity. For there is “a way round” :In long run- equilibrium, the contraction and expansion of firms will “net out” on the aggregate level - this, after all, is one obvious interpretation of the representative firm. And application of Occam’s razor dictates that for the purpose of constructing a industry supply-curve, variation in the population of firms is irrelevant. This

“...gives warrant for the conception of what I shall call the equilibrium firm. It implies that there can exist some firm, which, whenever the industry as a whole is in equilibrium... will itself also individually be in equilibrium” (ibid., p.240).
The specific significance of “the equilibrium firm”, the firm which sets price equal to marginal cost, was that this construction allowed Pigou to graphically explicate marginal - and average cost-curves - derived, in today's language, from the expansion path of the production function for given factor prices and with technology stationary - in the illustration of “internal” and “external" economies and their relative weight. And this allowed Pigou to formulate a partial response to Sraffa’s attack on Marshall: By maintaining that the equilibrium firm produced on its minimum efficient scale, all “economies” had to be “external”.

But Pigou’s contribution was to acquire a much wider significance than being limited to merely a contribution to internal Marshallian discussions. First, Pigou gave economics the conceptualization of the firm as a production function: Pigou (1928) is the first contribution to economic theory in which the firm is identified with a U-formed average cost-curve and the derived marginal cost-curve (Moss 1984, p.312). And on the basis of this, Pigou was able to take an important step forward in the axiomization of market theory: Never before had long run-equilibrium been defined as equality between price, marginal and average cost.

Second, with his introduction of the equilibrium firm, Pigou took an important step towards the definitive distortion of Marshall’s concept of the representative firm: The identification of the representative firm with an arbitrary firm selected from a population of uniform firms postulated in the work of Robinson (1933) and Chamberlin (1933). The “historical" aspect of Marshall’s representative firm - a miniature portrait of the dynamic developments in an industry - began to be lost with the introduction of the equilibrium firm. The significance of firms, organizational and technical trajectories for the understanding of their contemporary activities became increasingly neglected; the ahistorical firm began to become a reality.

Third, Pigou’s contribution introduced an explanatory innovation that was wholly complementary to the above-mentioned ones: Pigou was the first to subsume the theory of the firm under the methodical approach that Spiro Latsis has dubbed "single exit situational determinism”. Latsis (1976b) presented a general characteristic of this approach to social-scientific explanation:

“Some behavior may be said to be predominantly artificial...in the following sense: it can be understood in terms of an organism seeking a conventional goal and adapting to a largely “man-made” environment. The burden of explanation is in such cases born by the description of the artificial environment and there is almost no reference to the structure and properties of the behaving organism. The point about single-exit situations is that we need to know little if anything about the behaving organism's inner structure and organisation” (p.58).

Pigou’s derivation of cost curves from the expansion path of the production function may be regarded as a manifestation of “single exit situational determinism": Holding technology and relative prices fixed, it is industry levels (and changes) of demand that determine cost minimizing factor utilization and demand. And changes in the positioning of cost curves are not the result of the firm’s own action; rather, they derive from “external economies", contrasting strongly with Marshall’s emphasis on the firm’s cost-reducing incremental process-innovations, carried through by energetic entrepreneur/managers.

It is, however, the theory of monopolistic competition which ultimately instituted the equilibrium firm with its accompanying assumptions in economic theory; Pigou never went so far as to operate with a population of identical firms. And it is not until the advent of the theory of monopolistic competition that we can meaningfully talk about a neoclassical theory of firm behavior. It is decidedly not the case - as Spiro Latsis (1976a) implicitly assumes in his methodological discussion of the significance of the theory of monopolistic competition - that the theory of perfect competition was well-developed before the theory of monopolistic competition. On the contrary, these two theories were to a large extent a simultaneous analytical innovation. In my interpretation of the development of the neoclassical theory of the firm, Pigou’s and others’ preceding contributions are best thought of as contributions “hardening” (cf. Weintraub 1984 on the “hardening”of general equilibrium theory) the neoclassical program in the context of the theory of the firm, Robinson and Chamberlin being the ones who finally succeeded in establishing a full-blown neoclassical theory of the firm. How did this come about?

First of all, Chamberlin and Robinson gave the representative firm a very strange twist. A Robinsonian firm, for instance, “...is almost in equilibrium...[and].. firms are alike in respect of their costs and the conditions of demand for their individual outputs. Since we have assumed that all firms are alike, each must be supposed to act
in the same way, so that a single price always rules throughout the whole market” (Robinson 1932, p.544-546).

This made possible a new interpretation of the industry, one that turned Marshall completely on his head: Instead of defining an industry relative to products produced, an industry came to mean a collection of firms with identical technology and cost-structures. And of course, with every firm confronted with a falling demand curve, and the names of firms entering into the utility - functions of households, there simply was nothing except costs left to define an industry (Shackle 1967, p.49).

The problem-situation from which Robinson’s work emerged is briefly summed up by herself: “...the chief aim of this book is to carry out [Sraffa’s] pregnant suggestion that the whole theory of value should be treated in terms of monopoly analysis” (1933, p.XIII). Retrospectively, Robinson saw the Depression as an important external stimulus for her following Sraffa’s “pregnant suggestion”:

“The notion that every firm is facing a falling demand curve for its own product and that profits are maximized at the output for which marginal revenue is equal to marginal cost, provided an explanation for a situation in which firms could work their plants at less than full capacity and still earn a profit” (1933[1969], p.61). This “situation”, in contrast, was a Kuhnian anomaly for what Robinson took to be the theory of perfect competition. It is not surprising, then, that “The Economics of Imperfect Competition” excels in polemics against the descriptive realism of perfect competition. What is astonishing, however, is that this polemic is

anonymous; perfect competition is attributed “older text-books” (Robinson in 1933, p.3) without any references.

Which may these “older textbooks” be? This is a puzzle, since the perfect competition model as we know it (which is almost identical to Robinson’s conception) is simply not to be found in any textbook before Robinson (1933) (consult for corroborating overviews. Dennis 1977 and Stigler 1957). Robinson’s introduction to the second edition of Robinson (1933) gives us a clue, however; for here it is Pigou who is attributed perfect competition’s “neat, logical system (p. V)”. And it was Pigou, as we have seen, who took some very important steps toward the conception of the neoclassical firm. We seem thus to led toward the following observation: It was the theorists of monopolistic competition who supplied the neoclassical theory of the firm with its Kuhnian exemplar, the theory of firm behavior under perfect competition. In the process of polemizing against perfect competition, Chamberlin and Robinson constructed their own target, bringing together hitherto dispersed elements - e.g. full mobility (J.M.Clark, Knight), perfect information (Knight) the equilibrium firm (Pigou) firms as price-takers (Pigou), etc. - under a rigorous geometrical treatment. A comparative survey over the situational constraints that firms confront in this theory may argue my case a bit more comprehensively:

1. Independence of actions (parametric rationality, price-taking): “Perfect competition prevails when the demand for the output of each producer is perfectly elastic” (Robinson 1933, p.18). This is not in Marshall.

2. Complete relevant knowledge: “...each firm is always in equilibrium” (Robinson 1932, p.544). This is not in Marshall.

3. Free entry/exit: Totally free entry/exit is not in Marshall. Robinson’s (1933, p.93-94) discussion clearly implies the necessity of this assumption for her results.

4. Homogenous products: “An industry is any group of firms producing a single commodity” (ibid., p.17). Totally homogenous commodities are not in Marshall, who reserved the specific industry-definition for the relevant problem-situation of the analyst.

5. Large number of producers: “...the number of sellers is large so that the output of any one seller is a negligibly small proportion of the total output” (ibid.). This is in Marshall, although Marshall does not seem to have associated this with price-taking.

And these situational constraints were of course wedded to the fundamental behavioral assumption of neoclassical economics in the context of the firm, the notion of profit maximization. Thus arose the neoclassical program in the context of the theory of the firm. This is what motivates Shackle’s(1967, p.11) somewhat surprising attribution to Robinson of “a new invention, the theory of the firm”. Surely, it would be much more correct to say that Robinson was instrumental in demolishing what existed of a theory of the firm proper in English economic thought. Her contribution (and Chamberlin’s) was an important step toward the axiomatization of the theory of markets, not firms.

It is now easy to see how, why and when the embryonic evolutionary conceptualization of firms and markets that was present in Marshall’s thought was swept in the dustbin. With the introduction and subsequent institutionalization of the ahistorical, fully adapted, uniform equilibrium firm in economic theory, there could be absolutely no scope for appeal to evolutionary reasoning within the theory of the
firm. There could be no variety (no trees in the forest), no “heredity” (in the Marshallian sense of the firm as a reservoir of changing knowledge), and no competitive market selection (no trees/firms “succeeding on the way”). The Marshallian evolutionary insights were completely lost, and Marshall was subsequently attributed models, he would have regarded as “scientific toy[s] rather than engines for practical work” (Marshall 1925, p.460). Only equilibrium states and perfect adaptation remained.

Following Sraffa’s “pragmatic suggestion”, Robinson had set up the wrong problem for herself: The choice was not between partial versus general equilibrium per se, but between partial and general equilibrium analysis on the one hand, and firm growth, disequilibrium, competitive struggle etc. on the other.

Concluding Reflections

The episode described in the preceding pages is of course only one manifestation of the consequences of neoclassical economics taking hold of the economics profession, albeit one of the more illustrative ones: “The years of high theory” (Shackle 1967) generally marked the suppression of evolutionary approaches in economics. For the full story, the introduction of general equilibrium theory in the Anglo-Saxon community of economists following Hicks and Allen’s work in consumer theory, the theory of market socialism etc., had to be taken into account. However, the preceding pages allow us to see that the suppression of evolutionary approaches in economics was more than merely a matter of increasing abstraction of theoretical concepts (e.g. the firm).

Briefly, the happenings in the nineteen thirties implied a change in economic epistemics: Whereas Marshall’s agents had been ill-informed and fallible, the agents of neoclassical formalism were fully informed about all the relevant aspects of their problem-situations. The evolutionary framework embryonically present in Marshall’s thought conceptually allowed the analyst to operate with a broad menu of behavioral assumptions, e.g. entrepreneurial creativity, rule-following etc. In neoclassical formalism, the only behavioral assumption left was maximizing. And since these maximizers were fully informed, it was possible to put forward propositions about aggregate outcomes from the analysis of single (“representative”) agents; the explanatory procedure pioneered by Robinson (1933). In other words: The change in economic epistemics brought with it a change in the modes of explanations applied by economists. Replacing evolutionary modes of explanations (e.g. explicit invisible hand-explanations) were intentionalistic modes of explanation, where the notion of unintended outcomes became almost lost from the picture (as in modern rational expectations methodology).

All this was fundamentally a matter of the exclusion of variety; variety in terms of decision procedures followed by economic agents, knowledge held, internal organization, performance in the market place etc. It was only with Armen Alchian’s (1950) famous and provocative paper, “Uncertainty, Evolution and Economic Theory”, that the economic consequences of variety began to be systematically explored anew. Today, a new corpus of evolutionary economic theory (Nelson / Winter 1982; Dosi et al. 1988), strongly inspired by Alchian’s paper, is rapidly expanding. The patron saint of this expanding corpus is Joseph Schumpeter. This paper suggests that Alfred Marshall is just as appropriate a patron saint for the new evolutionary economics-at least in the context of the theory of the firm.

References


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