
The Entrepreneur in Theory and Practice

The
Entrepreneur

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The work that most economists do does not seem to require that entrepreneurship as a variable be faced or included in the models that are employed (Leibenstein, 1987, p. 193).

Introduction

The objective of this article is to advocate that economists devote more attention to factors concerning the supply of entrepreneurs both over time and across industries. The article has four main sections which reflect the structure of our case. First we follow the well-trodden track in pursuit of the entrepreneur within economic theory. Like others, we find a degree of definitional flexibility but also some indications that the track itself may be circular. However, the main point we wish to establish is that the emphasis has been on the entrepreneurial function and not on availability. The second section of the article acknowledges the plethora of empirical studies, couched in the neo-classical tradition, which equate the entrepreneurial function with the act of achieving entry to an industry. On balance we conclude that such studies have been rather unsuccessful in explaining new entry in part because they presume an unlimited supply of omniscient entry candidates. In the next section we develop the notion of the supply of entrepreneurs by considering the rather sporadic attempts to develop the microeconomics of entrepreneurial supply. The penultimate section adopts a different tack by going beyond the economics literature. Unlike the situation in economics, psychology and sociology have tended to concentrate on the supply of entrepreneurs. Consequently, we address the issue of what, if anything, economists can learn from psychological and sociological studies of entrepreneurship. Our conclusions outline an agenda for future research into the supply of entrepreneurs and pose practical questions which economists may wish to include in the work that they do.

The Theoretical Entrepreneur

The term "entrepreneur" goes back to 1755 and Cantillon. Here the function of the entrepreneur was, quite explicitly, "...[to] buy the country produce from those who bring it or to order it to be brought on their account. They pay a

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certain price ... to resell wholesale or retail at an uncertain price" (Cantillon, 1931, p. 51). In short, the entrepreneur at the outset was essentially an independent commodity speculator. As the eighteenth century progressed, so the notion of profit maximization emerged as the motive for entrepreneurial action (Long, 1983, p. 49). But it was at the height of the Industrial Revolution in Britain that what was expected of the entrepreneur began to adjust to the new demands of rapid industrial development. According to Say (1964; first published in 1803), the entrepreneur now had to be sufficiently multifaceted to ensure the proper co-ordination of a range of activities such as the raising of capital, the organization of production, and the distribution of the product: the entrepreneurs were their own managers.

With the continued growth of individual businesses, a process facilitated by the limited liability provisions enacted for the UK in the Companies Act of 1856, a distinct class of professional middle-level managers began to appear. This is of course the milieu in which Alfred Marshall was developing the "principles" which formed the basis of modern microeconomics. It is quite clear that Marshall recognized this emerging division of labour in his connotation of the entrepreneur. He comments thus:

In the greater part of the business of the modern world the task ... has to be broken up into the hands of a specialised body of men. They adventure or undertake its risks; they bring together the capital and the labour required for the work; they arrange or engineer its general plan and superintend its minor details (Marshall, 1962, p. 244).

Thus the function of the entrepreneur incorporates an ability to manage things through other people and, notwithstanding the static decisionless equilibrium analysis usually attributed to Marshall, to be able to do this in an environment in which adventure and risk are inherent. It is also important to remember that, given this division of labour, Marshall was also aware of the importance of what Loasby (1982) aptly describes as the "supply of business enterprise", and of the factors involved in helping individuals rise from the working classes (see Marshall, 1962, pp. 257-9).

The Marshallian entrepreneur is but one of very many, each moving ahead incrementally and contributing their successes and their failures to economic development. Moreover the entrepreneurial function here, while taking place within firms, does not have to be associated with the creation of new firms. This is all in some contrast to the radical entrepreneurial function at the heart of the Schumpeterian model. Here the function of the entrepreneur is ...

...to reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganising an industry and so on (Schumpeter, 1976, p. 132).

Schumpeter follows this up with several instances of his entrepreneurs in action, ranging in scale from railroad construction through electrical power generation and the motor car, down to being successful with a new sausage or novel toothbrush. Unfortunately, to the extent that Schumpeter addresses the

question of availability or supply, this is only to become convinced of the inevitable demise of such entrepreneurs as his capitalist engine falters and the entrepreneurial function usurped by bureaucracies and committees.

Although economics has adopted Schumpeter's work as part of its intellectual capital, the increasing emphasis in modern microeconomics on theory consistency served to remove the entrepreneur from the theory. This process has been summed up thus:

The entrepreneur is shorthand for uncertainty, imperfect information, and the unknown. He operates in the shadowy world of intuition, ignorance, and disequilibrium. As a functional agent, he is completely outside the scope of modern orthodox economic analysis because entrepreneurial issues are irrelevant and, more important, inadmissible, in the deterministic, tightly interlocking theoretical environment that is modern microeconomic theory. The entrepreneur cannot be introduced into the modern theory of the firm because he directly clashes with consistency – this is a battle the entrepreneur has not won (Barreto, 1989, p. 137).

One remaining sanctuary for the entrepreneur in economic theory is in the revived Austrian economics and particularly in the work of Kirzner (1973). The function of Kirzner's entrepreneur is to engage in profitable arbitrage based on discrepant information. A key weakness in this model, one identified by Loasby (1982, pp. 243-4), is that such entrepreneurship will be self-exhausting in the sense that the consequences of commercial adventures based on apparent knowledge differences will serve ultimately to eliminate such differences. Finally, Niman (1991) seeks to recreate a new entrepreneurial function within what Barreto refers to as the modern theory of the firm. But, as Niman concedes, his contribution is very much within the Marshallian schema and we have passed this way already.

Industrial Entry

Despite the disappearance of the entrepreneur from mainstream economic theory, the actions of entrepreneurs in terms of business formation and industrial entry have remained the focus of empirical research. The purpose of this work has been to account for changes over fairly short periods of time (typically three to five years) in the number of firms in an industry. Entrepreneurs as new entrants are assumed to respond to the perceived profit opportunities of different industries within the barriers to entry framework set by Bain (1956). The first and probably best-known work of this genre is contained in Mansfield (1962). Here entry is measured as the number of entrants over a specific time period which *survived* to the end of the period, as a proportion of the original number of firms. Thus we have a net measure of entry, one which fails to reflect the actions of failed entrepreneurs. Mansfield displays a certain reluctance with this:

... perhaps the most obvious measure of the amount of entry into the i th industry during the t th period is the number of firms that entered during the period as a proportion of the number of firms in the industry at the beginning of the period. But the available data force us to use the number of firms that entered during the period and survived until the end as a proportion of the original number of firms (Mansfield, 1962, p. 1024).

Mansfield estimated his model on sparse data (12 observations) drawn from only four US industries (steel, petroleum, tyres, and autos) as follows:

$$\ln E_{it} = 0.49 + 1.15 \ln \Pi_{it} - 0.27 \ln C_{it}$$

(*t* value) (2.67) (1.93)

$$R^2 = 0.70$$

where, E_{it} is net entry, as discussed above, Π_{it} is the average ratio of the rate of return of industry i to that for all manufacturing industries, and C_{it} is the investment required to establish a firm of minimum efficient size in industry i .

The coefficients have the expected signs and are statistically significant at the 95 per cent level. Thus, following Mansfield, the net rate of entry to an industry would rise by at least 60 per cent on a doubling of its relative profitability and fall by around 7 per cent if the absolute entry costs were to double.

The defects of this model as a representation of entrepreneurial activity are rather obvious but also useful as a basis for understanding the motivation for all the work that was to follow in this vein. These have typically employed much larger cross-sections of industries, including those in which small-scale entry would be the norm. Researchers have also been able to distinguish different types of entrant, i.e., to identify more closely the independent entrepreneur, and overcome the resort to net measures of entry (see Baldwin and Gorecki, 1987; Hamilton, 1985; Macdonald, 1986).

Nevertheless the accomplishments of all this endeavour have been modest and in our view the field is now offering diminishing returns. Its findings were reasonably summed up by Schmalensee in this way:

Estimates of the market share of a plant of minimum efficient scale and the capital cost of such a plant tend to be negatively related to observed entry, as does advertising intensity. Profitability is not generally strongly correlated with subsequent entry, but it is unclear whether this reflects expectations that significant entry would lower profits or the difficulty of measuring profitability (Schmalensee, 1988, p. 669).

Given our focus in this article, the major criticism we have of this treatment of entrepreneurial actions is that it pays no heed to the availability of the actors. In other words, in empirical studies – as in the theoretical works which largely preceded them – the supply of entrepreneurs has been sadly and crucially neglected. All that can be taken from these studies is that there exists an exogenous and inexhaustible pool of versatile and omniscient prospective entrepreneurs, willing and able to enter those industries which appear to offer the best prospects for profit. On a different level, we would also support the point made in Brock and Evans (1989) that such studies remain unable to account for the fact that, in most industries, there is a strong positive association between contemporaneous levels of entry and exit: to explain one is just to be confounded by the other.

Supply of Entrepreneurs: An Economic Perspective

It might be as well for us to make clear our own position on these matters. In fact, this is well stated for us by Ronen:

Perhaps complementing in the insightful demand perspective with determinants of supply is of greater importance than the rather exhausting debate as to whether entrepreneurship constitutes a moving away from equilibrium (*à la* Schumpeter) or whether it is moving toward equilibrium (*à la* Kirzner) (Ronen, 1987, pp. 211-12).

Sporadic concern with the supply of entrepreneurs has been evident in different ways and at different times during this century. As we have seen, only Marshall had the social awareness to incorporate supply-side factors in his theory of how economies progress. It is then hardly surprising that, as far as we can discover, the earliest empirical study of entrepreneurial supply was carried out in Marshall's time "... to discover the degree in which the employing classes are recruited from the wage-earning classes in the Lancashire Cotton Industry" (Chapman and Marquis, 1912, p. 293), and very much in the Marshallian framework "... as it has been truly said, an industry with its businesses is like a forest in which old trees are dying and new ones are growing up to take their place" (Chapman and Marquis, 1912, p. 306).

However, there would appear to have been no follow-up to this pioneering study of the sources of entrepreneurs. Perhaps the next most significant study was that by Oxenfeldt (1943). When Oxenfeldt examined the entry flows into certain US industries he reached conclusions which remain antithetical to the neoclassical paradigm. In the first place he argues that business founders do not have the information to assess the relative profitability of different activities (Oxenfeldt, 1943, p. 106), an argument which he seeks to support by pointing to the frequency with which entrepreneurs establish themselves in trades which he (but not they) knows to be unprofitable (Oxenfeldt, 1943, pp. 109-10). It could also be argued that the positive association between entry and exit is a plausible consequence of entrepreneurs being so poorly informed, i.e. those exiting are failed entrants. Moreover, if one assumes imperfect knowledge rather than unexploited opportunities, one might think of real entrepreneurs making Popperian conjectures, many of which are expected to fail: to a considerable extent, failures may therefore be a sign that the economic system is working successfully. Oxenfeldt also points out that real entrepreneurs usually confine their adventures to those lines of business in which they were previously engaged as either an employer or employee. Thus, the theoretical entrepreneur – omniscient, profit-oriented, opportunistic, and versatile – is almost as far removed as he or she could be from those real entrepreneurs engaged in building up one of the largest and most advanced of the Western economies. In our terms, what Oxenfeldt began to discern was in fact a supply-side theory of entrepreneurship although he appears not to have regarded it as such at the time.

The conversion of Oxenfeldt's early insights – and indeed those of Chapman and Marquis – into a supply-oriented theory of entrepreneurship was begun by

Johnson and Darnell in 1976. Commenting on the treatment of new entry in the applied economics literature, their views are very much in the tradition of Oxenfeldt:

... little attempt has been made to examine why new firms are formed: even where barriers are high, new firms may still attempt to enter, perhaps managing to survive for a short period after entry. ... However the major shortcoming of the entry literature for our purposes is that it has given little consideration to the fact that usually a founder will (eventually) move from an existing position of paid employment (or unemployment) (Johnson and Darnell, 1976, p. 9).

From a starting point within the labour force, latent entrepreneurs will move into their own businesses when they reckon the pay-off from self-employment (P_s) to be greater than that afforded by their present position (P_e). This condition can arise either when P_s rises relative to P_e and entrepreneurs are “pulled” from the labour force, or vice versa, when founders are “pushed” out of either employment or unemployment as the case may be. Johnson and Darnell develop a quarterly time-series model with capacity utilization (C_t) representing P_s ; unemployment rates (U_t) as the proxy for P_e ; and new UK company registrations (Y_t) as the dependent variable. The estimated equation is as follows:

$$\ln Y_t = 0.96 + 0.31 \ln U_t + 1.93 \ln C_t$$

$$(t \text{ value}) \quad (3.20) \quad (1.70)$$

$$R^2 = 0.90$$

The estimated coefficients have the expected signs and are significant. Subsequently there have been a number of attempts to develop further this supply-side representation of entrepreneurial behaviour (e.g. see Creedy and Johnson, 1983; Hamilton, 1986, 1989; Harrison and Hart, 1983; Storey and Jones, 1987).

On the theoretical front, it is also worth discussing Casson's (1982) attempt to use a neoclassical framework for analysing the crucial variables which determine the supply of entrepreneurship. (Indeed, his treatment of entrepreneurial supply is part of a more general attempt to apply the equilibrium method to an analysis of entrepreneurship.) His supply curve relates the number of “active” entrepreneurs (who are willing to supply their co-ordination services) to “the expected reward per entrepreneur”.

The supply curve has an infinitely elastic portion at the prevailing real wage for non-entrepreneurial labour, and it is upward sloping above the real wage, indicating that more will be supplied at a higher expected return to entrepreneurship (Casson 1982, p. 336). In his analysis, Casson distinguishes between two groups of entrepreneurs: those who value their leisure at less than the prevailing real wage and those who value it more. The supply of entrepreneurs from the first group is infinitely elastic at the prevailing wage. Not one of them will decide to become an entrepreneur if the expected return to entrepreneurship is less than the reward to the best alternative use of their time, i.e. the prevailing wage for non-entrepreneurial work. (It is assumed that due

allowance is made for different levels of risk of alternative activities.) When the expected return to entrepreneurship equals their opportunity costs of becoming an entrepreneur, however, they are all prepared to switch from manual work and routine management to entrepreneurship. The supply of entrepreneurs from the second group will only emerge once the expected return rises above the real wage rate. Of this group, those who value their leisure least will be the first to be induced into entrepreneurship, whereas those who value it more highly will become entrepreneurs as the expected reward rises higher and higher.

It should be noted that Casson's supply schedule is the supply curve of *qualified* entrepreneurs. Individuals with entrepreneurial ability are qualified if they have access to resources for backing their judgements. Such control over resources may be gained through personal wealth, good social contacts with wealthy people, or financing from venture capitalists. A person with entrepreneurial ability but no access to capital is "unqualified".

In Casson's model, therefore, the position of the supply curve for entrepreneurship depends on: the number of able entrepreneurs in the economic system (i.e. the *stock* and *distribution* of entrepreneurial ability among the population); *and* the proportion of able entrepreneurs who are qualified. The latter is in turn determined by the distribution of personal wealth, the organization of education, the social structure, the degree of social mobility between entrepreneurial and non-entrepreneurial groups, and the institutional framework, including the effectiveness of mechanisms used by large firms and financial intermediaries for screening for entrepreneurial talent. The supply curve will shift with changes in any of the above parameters (Casson, 1982, pp. 338, 346).

In line with his neoclassical predilections, it is clear that Casson is relying on the idea of entrepreneurship as a resource which can be allocated like any other factor of production. (This feature of Casson's theory is shared by other neoclassical treatments of entrepreneurial supply: e.g. Murphy *et al.*, 1991; Schultz, 1975.) Accordingly, he claims that the decision-making services of entrepreneurs are scarce and that they have a positive opportunity cost (Casson, 1982, p. 29). Such a conception of entrepreneurship stands in stark contrast to that of Kirzner (1973, 1979) and other modern Austrians, who regard entrepreneurship as non-deployable and costless.

A more recent and rather distinctive contribution bearing on the supply of entrepreneurs has come from Leibenstein (1987). Leibenstein is concerned here with both re-introducing the entrepreneur into modern microeconomic theory and the selection and training of individual entrepreneurs. A key aspect of his theoretical initiative is the notion of "... a loose inert area of equilibrium range of costs..." (Leibenstein, 1987, p. 201), i.e. one in which not all established firms are cost minimizers. In this situation, motivation coupled with little more than average capabilities can form the basis for successful entry. The flow of exits would contain the weaker incumbents rather than failed entrants *per se*. The wider implications of such "loose" equilibria for both the definition of the set of entrepreneurial opportunities and the supply of candidate entrepreneurs

are profound though difficult to quantify. What prevents all or most of us from augmenting the supply of entrepreneurs is a lack of appropriate *motivation*. The essential motivation is the need for achievement as identified and taught by David McClelland and his associates (we shall have more to say on this motivational variable in the next section). Leibenstein calls on economists to consider the possibility of becoming directly involved in this activity with a view to boosting the supply of entrepreneurs.

Psychological and Sociological Perspectives on Entrepreneurship

In this section we examine various psychological, sociological and cultural factors which are predicted by different theories to influence the supply of entrepreneurship. To provide a useful focus for our discussion, we shall address the following question: what, if anything, have economists to learn from psychological and sociological studies of the entrepreneur?

Hypotheses about the principal determinants of entrepreneurial performance are strongly conditioned by the particular set of disciplinary spectacles through which one looks. By and large, economists have tended to concentrate on the nature of the entrepreneurial function, neglecting the unique set of personal qualities which characterize the entrepreneurial type and emphasizing the demand-side determinants of entrepreneurial activity. Contrary to form, they have surrendered the subject of entrepreneurial supply to psychologists and sociologists (all the more unusual given economists' propensity to venture into areas traditionally regarded as the preserve of other social sciences).

Unlike mainstream economists who view the supply of entrepreneurship as highly elastic, psychologists and sociologists recognize that the supply of the unique personal qualities required for entrepreneurship may be limited in the short- and medium-term, with the result that the supply of entrepreneurial services is not significantly affected by the structure of economic incentives (i.e. supply is assumed to be inelastic). They reject the neoclassical view that the supply of entrepreneurship can be induced systematically and frictionlessly by the conditions of the market. Hence, factors on the supply side are predicted to be possible prime determinants of entrepreneurial activity – a lack of vigour in entrepreneurial response being attributed to supply factors (not enough potential entrepreneurs in the society) rather than demand-side factors (such as lack of opportunities or rewards for entrepreneurial endeavour).

One of the early psychological studies of entrepreneurship is that of McClelland (1961). His objective is to identify and to analyse the psychological factors which *produce* entrepreneurial personalities. In particular, he focuses on the *motivational* variables affecting the supply of entrepreneurship: namely, the psychological drives underlying the individual's "need for achievement" (or *n Ach*). Individuals with a high *n Ach* are depicted as preferring to be responsible for solving problems and for setting goals to be reached by their own efforts as well as having a strong desire to receive feedback on their task accomplishment. McClelland hypothesizes that entrepreneurs will have high *n Ach* because they seem to possess the same characteristics. Thus, according to McClelland (1961,

pp. 233-7), the supply of entrepreneurship depends on individuals' psychic needs for achievement rather than on the desire for money (but monetary rewards may still constitute a symbol of achievement for entrepreneurs).

McClelland identifies specific child-rearing patterns as crucial to the development of high *n Ach* and hence as essential to the emergence of entrepreneurship[1]. Among other things, child-rearing practices conducive to entrepreneurship emphasize reasonably high standards of excellence, self-reliance training and mastery, maternal warmth and low father dominance. Furthermore, it is argued that these practices are in turn primarily determined by parents' religious and ideological values. Although McClelland's theory does not increase economists' understanding of the essence of the entrepreneurial function, it does yield some new insights into the factors influencing entrepreneurial supply. Included here is its explanation of the effects of family socialization (and other aspects of the social and cultural environment) on the development of *n Ach* and hence on the subsequent emergence of entrepreneurs. In addition, McClelland's approach rejects the naïve and oversimplified psychology of the "profit motive" (with which some economists have endowed entrepreneurs) and replaces it with a novel emphasis on an intrinsic motivational variable affecting entrepreneurial supply – namely, the achievement motive.

Another psychological theory of entrepreneurial supply with some similarity to McClelland's is that of Hagen (1962). He examines the causal interplay among society, personality and economic change. The crux of his argument centres on how certain psychological changes can result from certain social changes. In the course of his argument, he constructs a taxonomy of personality types (namely, the authoritarian-creative personality dichotomy). Like McClelland, he sees the entrepreneur as a "creative personality" driven by a high need for achievement. However, his analysis is more comprehensive than McClelland's in that it incorporates both the social and the psychological drives which produce the entrepreneurial personality.

In Hagen's theoretical system, the supply of entrepreneurship depends on two sets of variables: withdrawal of status respect (or group subordination) and relative social blockage. Status withdrawal occurs when members of a previously accepted social group perceive that their value system is no longer recognized by other social groups whose respect they seek. Such a loss of social recognition is the initial disturbance which sets in motion a sequence of changes over many decades in child-rearing practices and personality formation, and which gradually gives rise to technological innovation. According to Hagen, entrepreneurship is supplied disproportionately more by subordinated groups which are alienated from society and which thus attempt to assert themselves through enterprise. Men in these groups feel discriminated against and because of relative social blockage, they compensate in the best, and often the only, way open to them – by succeeding in business. The existence of relative social blockage is crucial in determining the channel into which their creative and

entrepreneurial energies flow. The implication is that they are “pushed” rather than “pulled” into entrepreneurship.

Thus, Hagen’s theory is of significance for economists because it draws attention to loss of status recognition and barriers to entry to specific social networks as possibly important determinants of the supply of entrepreneurship. It also offers insights on the mechanisms by which individuals can be directed into entrepreneurial pursuits. The efficacy of such mechanisms will affect the position and elasticity of Casson’s entrepreneurial supply curve (discussed above).

The final psychological approach to be considered is Gilad (1982, 1986). He successfully links Rotter’s psychological theory of locus of control (LOC) with Kirzner’s economic concept of entrepreneurial alertness. According to LOC theory, individuals believe that the outcomes of events in their lives are either within or beyond their personal control. People with internal LOC believe that the environment can be controlled by their own actions and that they are, therefore, responsible for their own destiny. In contrast, a person with external LOC interprets events as the result of outside factors that they cannot influence, such as luck, chance, fate, or “powerful others”.

From his survey of empirical psychological studies of the entrepreneur, Gilad concludes that an individual’s locus of control is a major factor determining his or her level of entrepreneurial alertness[2]. In particular, internal LOC gives rise to heightened alertness which is necessary for incidental learning (i.e. the recognition of profit opportunities once they are encountered). Spontaneous learning in turn ultimately results in entrepreneurial behaviour.

Of great relevance for economists is Gilad’s argument that people’s LOC beliefs are endogenous to the model. The hypothesis is that the internality of economic agents is dependent, among other things, on the institutional-constitutional framework, the degree of decentralization in the economy and the character of regulatory constraints. A society based on decentralized control seems more likely than a centralized society to produce citizens who believe in internal LOC and who are entrepreneurial (Gilad 1982, p. 157; 1986, p. 201).

It would appear that economists have been unduly cautious in incorporating psychological elements – i.e. internal states of mind, private motivations and cognitive processes of economic actors – into their analysis. They have much to learn from psychologists’ attempts to explain entrepreneurial behaviour by recourse to personality and behavioural characteristics which individualize entrepreneurs. Psychological theories can give economists useful hints about the inner motivational and cognitive variables which can affect the supply of entrepreneurship. (Economic theories may then in turn explain how these psychological variables can be shaped by economic factors.) Moreover, as Gilad has shown, they can help explain the determinants of individual differences in entrepreneurial ability, and hence they can improve economists’ understanding of the factors affecting the distribution of entrepreneurial talent within a society.

Economic theories of entrepreneurship tend also to ignore sociological and cultural factors in addition to psychological ones. The distinction is important

since sociology is, as Kuhn once stated, “a field quite different from individual psychology reiterated n times” (1970, p. 240). The inadequate treatment of society-wide and group-level phenomena results from the fact that economic theories (e.g. Casson, 1982; Kirzner, 1973; Schumpeter, 1934) usually take the individual entrepreneur as the unit of analysis. They do not deny the independent existence of group phenomena, such as entrepreneurial teams and networks. Rather they make one of three different types of assumptions: they assume that social groups can be ignored because their effects on entrepreneurial activity are actually negligible (negligibility assumption); they assume that social groups would have significant effects, so that the respective theory will only apply to situations where social groups are absent (domain assumption); or as a first approximation, they abstract from the effects of social groups in order to simplify the development of the respective theory, with the intention of taking account of group-level variables at a later stage (heuristic assumption) (Musgrave, 1981)[3].

In the following discussion we examine two theories of entrepreneurship which invoke sociological and cultural factors. The first is Weber’s sociological theory. In Weber’s system (1930), the supply of entrepreneurship is a function of exogenously supplied religious and social values. “Weber wanted to show how certain types of Protestantism became a fountainhead of incentives that favoured rational pursuit of economic gain” (Bendix, 1977, p. 57). In particular, Weber argues that the religious imperatives of Calvinism provide the motives behind entrepreneurship – they generate the moral energy and drive of capitalist entrepreneurs.

The theological doctrines of Calvinism have direct consequences for how people are to conduct themselves in day-to-day affairs. They spur individuals to produce tangible signs that they have been preselected by God for salvation from damnation (the so-called doctrine of predestination). Calvinism emphasizes intense commitment to an occupational calling, rationality in the allocation of means to ends and a “this-worldly” asceticism (which is nevertheless combined with a drive to the accumulation of assets). Taken together, these imperatives comprise the Protestant ethic. According to Weber, the Calvinist notion of demonstrating one’s faith through the performance of good works in worldly activity enhanced the choice of business as an occupation, thereby increasing entrepreneurial supply.

Weber’s sociological theory has had a pervasive influence on non-economic theories of entrepreneurial supply, including those of Cochran (1960, 1965) and McClelland. According to Kilby (1971, p. 7), it still commands at least as much respect as its more elaborate successors. Its significance lies in the fact that it was the first theory to explain in detail the causal sequences linking ideological and religious values to the supply of entrepreneurship.

Indeed, most economists would concur with Baumol’s contention that the determinants of the supply of entrepreneurship are “to a very considerable extent matters of social psychology, of social arrangements, of cultural developments and the like” (Baumol, 1968, p. 69). In addition, they would concede

that, in the last analysis, such factors as “cultural circumstances are far more potent in their effects than taxes or regulatory constraints” (Baumol, 1983, p. 31).

Nevertheless, social and cultural influences are typically regarded by economists as “intractable determinants” and are usually treated (if they are mentioned at all) as exogenous variables in the economic analysis of entrepreneurship, since it is not immediately clear how public policy can easily affect them. (As a result, economists have favoured limiting their analyses of entrepreneurship to secondary variables whose magnitudes are more amenable to governmental control.)

More recently, however, Casson (1990a), has shown that the cultural determinants of entrepreneurial supply may not be so uninteresting, inexplicable or intractable analytically to economists after all. Casson develops an analytical framework which combines cultural and economic determinants of entrepreneurship. (Interestingly, this framework is not related either implicitly or explicitly to his earlier neoclassical treatment of entrepreneurial supply.)

Though he does not make any explicit reference, Casson’s approach too has a Weberian flavour: “The economic content of a culture is ... related to implicit scientific and religious attitudes which are transmitted through education, the media, and personal contact within social groups” (Casson, 1990a, p. viii)[4]. According to Casson, culture comprises a number of elements, the most significant of which for our purposes are the moral aspects of culture. The moral dimension of culture legitimates general principles of business behaviour and motivates entrepreneurs to make commitments of various kinds. Important types of moral commitments include commitments to tell the truth, to respect other people’s property and interests and to honour the legal process. A culture which encourages a high degree of moral commitment among its members will engender mutual trust, reciprocity and honesty, will limit opportunistic behaviour on the part of contracting partners, and will thereby reduce a wide range of transaction costs within that society. By enhancing transactional efficiency, the moral dimension of culture is likely to increase the supply of entrepreneurship in a nation: “some moral attitudes are far more entrepreneurial than others, and so are more conducive to the process of economic development” (Casson, 1990a, p. 92).

Thus, cultural explanations, including the direction of Casson’s most recent research, are of value to economists because they highlight the importance of co-operation, supportive relationships and reciprocity in the economic sphere: “... a successful entrepreneurial culture must support both competitive and *co-operative* behaviour...” (Casson, 1990a, p. 93; emphasis added). To bring their ideas to fruition, entrepreneurs must be able to develop widespread networks of co-operation with capitalists, customers, suppliers, employees and other entrepreneurs. It is important not to equate entrepreneurial culture with a climate of the aggressive and narrow pursuit of short-term private interests. A cultural approach to entrepreneurship can therefore serve to broaden economists’ interpretation of self-interested and rational behaviour.

Before closing our discussion at this stage, it is necessary to make a few remarks which qualify our hitherto enthusiastic claims about the usefulness for economists of psychological and sociological theories of entrepreneurial supply.

The first and most general point is that economists must not let the introduction of extra-economic elements into their theories undermine what they have identified as the crucial features of entrepreneurship (e.g. its tendency to bring market transactions into closer, though not necessarily strict, co-ordination) (cf. Kirzner, 1982, p. 155). Consequently, economists should prefer those psychological and sociological theories (such as Rotter's theory of locus of control) which can be usefully linked to economic notions of entrepreneurship. In accordance with this directive, Gilad (1982), for instance, has initiated an important line of research which analyses the psychological factors accounting for individual differences in entrepreneurial alertness (Kirzner's economic concept).

This point is especially important given that many non-economic studies of entrepreneurial supply have unfortunately not excelled in conceptual clarity and rigour. Definitions of the entrepreneur have often been vague and do not correspond directly to the precise notions of entrepreneurship in economic theory (Kets de Vries, 1977, p. 38). The entrepreneur is often defined loosely as an individual who sets up a business venture, usually a firm (i.e. the unit of analysis is "enterprisers" rather than entrepreneurs). The distinction between entrepreneurship and management is also often blurred (as with samples in McClelland's studies which seem to be directed at the managerial function).

The next point is that economists must be wary of relying on untested and uncorroborated psychological and sociological constructs. Where possible they should use the better corroborated non-economic theories of entrepreneurial supply: ideally, they should choose the theories which have survived severe empirical tests. With reference to the psychology of entrepreneurial supply, for example, Rotter's concept of internal locus of control is to be preferred to McClelland's notion of need for achievement because it is a better predictor of entrepreneurial intentions (Borland, 1974). In addition, lack of testability is often a general shortcoming of sociological theories. Thus, it is unwise to generalize uncritically about what economists can gain from psychological and sociological studies of factors affecting the supply of entrepreneurship.

Conclusions

Before developing our conclusions in terms of the issues economists may or may not wish to address in this area, we should stress the importance of the supply of entrepreneurs to economic development. Entrepreneurs know what to do even though they have not read or even heard of the works of the likes of Marshall or Schumpeter. The key then is to have enough of them together in the same place at the same time. The clearest example of how this works is from observing the vital economic contribution which particular minority groups have made to a range of societies e.g., contemporary Japan, France and Brazil[5].

So, what practically might economists do? They might take up Leibenstein's suggestion and move into teaching achievement motivation to aspiring entrepreneurs. Then again, they might not. In any case a very large number of economists would have to teach an even larger number of entrepreneurs before this would have any perceptible effect on economic development. Alternatively they might begin to focus some of their research activity in the areas identified

by Ronen (1987). More specifically, they may be able to increase our understanding in three areas. First, how does entrepreneurial activity vary among the OECD countries given comparable levels of development but different national policies towards fostering enterprise? Second, using the observations of Oxenfeldt and others, it would be of interest to develop industry-level models in which the supply of potential entrepreneurs was itself an industry variable. Third, it would be fascinating to investigate the extent to which the entrepreneur's availability contributed to the spatial variation in business formation within an industry.

We would also add a fourth item to the agenda of future research. We recommend that economists should pay closer attention to the fertile psychological and sociological literatures on entrepreneurial supply (mindful, however, of the methodological and definitional problems that they entail). This would enable economists to widen the scope of their analyses of the supply of entrepreneurship by incorporating psychological and cultural dynamics. It would enable them to endogenize, and hence explain, variables which have usually been treated as exogenous, and hence as unexplained. (Casson's 1991 analysis of the social dimension of morality is an example of this.) Economists must try to avoid making the mistake that Hayek warned against: namely, the error of ignoring crucial variables simply because they are difficult to measure or to quantify (or, we might add, simply because they are not obviously amenable to influence by public policy). It appears that there is little justification for economists to claim hegemony regarding the topic of entrepreneurial supply, to the exclusion of other social sciences. There is much to be gained from a cross-fertilization of ideas.

Notes

1. It should be noted, however, that McClelland's later work downgrades the significance of child-rearing practices to the development of achievement motivation (McClelland and Winter, 1969). It is now argued that training programmes can develop achievement motivation in adults (Miron and McClelland, 1979).
2. Indeed, there is some support within the empirical psychological literature for characterizing an entrepreneur as an internal person (Borland, 1974; Brockhaus and Horwitz, 1986).
3. Indeed, as we shall see later, Casson's (1990a, 1991) more recent research acknowledges the role of social groups in entrepreneurship. So too did Schumpeter's later work.
4. In particular, Casson's discussion of the *ascetic attitude* of self-denial (which accepts a sacrifice of material comfort and leisure time in the pursuit of high performance norms) is particularly reminiscent of Weber's concept of the Protestant ethic.
5. See, for example, the comments by Casson (1990b, p. xxv); and Sarachek (1978). For a discussion on the existence of entrepreneurial groups in developing countries, see Leff (1978).

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