

Entrepreneurship, Risk and Income Distribution in Cantillon's *Essai*

Tony Aspromourgos

Abstract. It is a commonplace that the theory of entrepreneurship has its genesis in Richard Cantillon's *Essai sur la Nature du Commerce en Général* (1755). But in fact, how substantial is the conception of 'entrepreneurship' that is to be found there? This paper reassesses the character and significance of Cantillon's notion of entrepreneurship and concludes that it captures only two quite limited forms of economic function, relative to the meaning of the concept in post-classical economics. The decisive aspect of entrepreneurship in modern economics – innovation – is virtually entirely absent from Cantillon's text.

Key words: innovation, profits, risk, supply-price, uncertainty.

[I]t may be laid down that except the Prince and the Proprietors of Land, all the Inhabitants of a State ... can be divided into two classes, Undertakers [Fr., *Entrepreneurs*] and Hired people; and that all the Undertakers are as it were on unfixed wages and the others on wages fixed so long as they receive them though their functions and ranks may be very unequal. The General who has his pay, the Courtier his pension and the Domestic servant who has wages all fall into this last class. All the rest are Undertakers, whether they set up with a capital [*un fond*] to conduct their enterprise, or are Undertakers of their own labour without capital, and they may be regarded as living at uncertainty [*l'incertain*]; the Beggars even and the Robbers are Undertakers of this class.

Richard Cantillon (1755 [1931]: 55)

1. Introduction

It is a commonplace in the secondary literature of the history of economics, and in the entrepreneurship literature, that the theory of entrepreneurship has its genesis in Richard Cantillon's *Essai sur la Nature du Commerce en Général* (1755). But in fact, if one examines thoroughly the character and activities of 'entrepreneurs' in Cantillon's text, how substantial is the conception of entrepreneurship that is to be found there? The purpose of what follows is to make a rigorous reappraisal of Cantillon's treatment of the subject, comparing it with the meaning of entrepreneurship in the mature treatment of the phenomenon. We derive that latter benchmark conception of entrepreneurship from the

key contributions of J.A. Schumpeter and F.H. Knight in particular. The conclusion is that Cantillon's conception captures only two quite limited forms of economic function, relative to the meaning of the concept in post-classical economics. The decisive aspect of entrepreneurship in modern economics – innovation – is virtually entirely absent from Cantillon's text. Our interest here is particularly in how the remuneration of entrepreneurship is understood, in relation to functional income distribution. More generally, this inquiry is partly motivated by the fact that, in relation to the interpretation of classical economics, the concept of entrepreneurship has commonly been deployed in a rather loose and ill-defined manner – in particular, to make it synonymous with, or at least to include, risk-bearing and superintendence of production (see, e.g., Aspromourgos 2009: 109–10, 198, 201).

2. 'Entrepreneurs' and 'Undertakers'

We may first make some comments on the term itself, in relation to Cantillon's text. The word derives from the French *entreprendre*, to undertake (*Oxford English Dictionary*, 'entrepreneur'), connoting the entrepreneur as literally an 'undertaker', which is precisely how Higgs translates the term in his English text of Cantillon (1755; hereafter cited as *RC*). Actually, Higgs's recourse to 'undertaker' appears not to be a translation at all. He provides no detailed introduction to his translation, explaining how he has proceeded in relation to translation issues, and in particular, he makes no comment concerning his reasons for translating *entrepreneur* as 'undertaker'. However, in an essentially biographical essay on Cantillon included at the end of the volume, he does provide some brief general comments on how he went about the translation (Higgs 1931: 383–84). The upshot is that Higgs rather plausibly judges Malachy Postlethwayt's (1749; 1751; 1755) plagiarism of Cantillon's essay to be so comprehensive that Postlethwayt 'must have had the English original before him, and I have little doubt that in Postlethwayt's version we have Cantillon's own language with little or no variation' (p. 383). On this basis, Higgs chose to proceed as follows:

The present translation has been collated with these passages [of Postlethwayt (1751; 1755) which cover 'the whole substance' of *RC*] and made to conform to them so far as is justified. It probably goes near to a reconstruction of the English original [of *RC*]. (Higgs 1931: 384)¹

If Postlethwayt did indeed have access to a Cantillon English original version of the *Essai*, and placed this text into print in his *Universal Dictionary*, then the term employed in the Postlethwayt text instead of 'entrepreneur' would be Cantillon's term in English for what becomes in the French text *entrepreneur*. (Higgs does not comment explicitly on these particular terms.) And indeed, as in the Higgs translation, the term which appears in Postlethwayt's texts is 'undertaker'. Thirteen in particular of Postlethwayt's dictionary entries incorporate text from Cantillon's *Essai* (Higgs 1931: 390). An examination of four of these which are particularly pertinent to the concept of entrepreneurship reveals many uses of 'undertakers' and variants ('Cash', 'Circulation', 'Interest', and 'Labour': Postlethwayt 1751: 461–64, 498–99, 988–999; 1755: 1–7). References to undertaking occur in those entries at pages 463–64, 498–99, 996–97, 1–2 and 5–6. In relation to

parallel uses of undertakers in Postlethwayt's text and *entrepreneurs* in Cantillon's French text, the circulation entry is the most striking instance of the four, since Postlethwayt's text is here following Part I, Chapter XIII of Cantillon, the chapter specifically devoted to explaining entrepreneurship or undertaking. Hence, for example, the opening proposition of Postlethwayt's 'Remarks' in that entry parallels Cantillon's chapter title (original italics in all three):

The circulation of all the goods and commodities in a State is carried on by undertakers, and all at an uncertainty. (Postlethwayt 1751: 498)

La circulation & le troc des denrées & des marchandises, de même que leur production, se conduisent en Europe par des Entrepreneurs, & au hazard (RC: 46; Higgs's French text)

The circulation and exchange of goods and merchandise as well as their production are carried on in Europe by Undertakers, and at a risk (RC: 47; Higgs's translation)

Notwithstanding the view of Ricketts (2006: 41; cf. Casson 1987: 151), *entrepreneur* was in French use long before Cantillon (Hoselitz 1951: 193–200, or 1960: 234–40): his text is rather a watershed in the conceptualizing and theorizing of it. The *Oxford English Dictionary* traces English use of the term, in a general economic sense, back only so far as Walker (1883: 203).²

3. What is Entrepreneurship?

To delineate the notions of entrepreneurship in modern economics, in order to contrast Cantillon's sense, we may take our bearings from Casson's (1987) commentary. From Schumpeter (1934: 66, 81 n. 2), the entrepreneurial function, as the prime force in economic development, is to innovate in five dimensions: new goods (product innovations); new production methods (process innovations); new markets for demands (for the outputs of enterprises); new markets for supplies (of inputs to production); new industrial organization.³ The entrepreneur is an exploiter of inventions rather than an inventor (Schumpeter 1934: 88–89); she is not a risk-bearer, this being a function of 'the capitalist who lends funds to the entrepreneur' (Casson 1987: 151; Schumpeter 1934: 75, 128–29, 137, 153, 194–96); 'Schumpeter's entrepreneur has a managerial, or decision-making role' (Casson 1987: 151; Schumpeter 1934: 74–75, 82–88, 137, 147, 152, 155). It may be emphasized that for Schumpeter, in order to be entrepreneurial this management function must be management of innovation: management which is or has become routine is effectively a species of labour in receipt of wages. 'Leadership' is the key characteristic of the Schumpeterian entrepreneurial manager. One can immediately see from this why innovation comes to be commonly regarded (rightly) as the *decisive* characteristic of entrepreneurship: because risk-bearing can be collapsed into capital-provision as an economic function, and routine management can be reduced to a form of labour-provision as an economic function.

In relation to the function of risk-bearing, Casson (1987: 151) also highlights Knight's view that with regard to unique business situations, 'relative frequencies of past events cannot be used to evaluate the probabilities of future outcomes', the famous risk-versus-

uncertainty distinction (Knight 1933: 223–33, 310–12): ‘measurable risks can be diversified – or “laid off” – through insurance markets, but uncertainties cannot’ (see Knight 1933: 35–48). Knight’s view is that the *owners* of businesses engaged in genuinely uncertain ventures, insofar as they cannot price and trade the uncertainties, and must thus bear the outcomes of those ventures, are the entrepreneurs, ‘not the salaried managers that make day-to-day decisions’ (Knight 1933: 259–301, 308–09, 350). But for Knight (e.g., 1933: 267–68, 289–90), day-to-day decision-making is not necessarily synonymous with ‘routine’ decision-making: decision-making under conditions of uncertainty (rather than mere risk), may be day-to-day. Nevertheless, for him it is the provision of capital (and possibly other production services) which exposes one to the uncertainty of pecuniary outcome from uncertain ventures, and it is undertaking this exposure which is entrepreneurial. Hence the manager to whom a capital-providing entrepreneur delegates day-to-day decision-making, if that manager is similarly or analogously exposed as to remuneration, is allowed by Knight (1933: 289–90) to be engaged in entrepreneurship.⁴ In any case, at least partial self-financing of the capital utilized by entrepreneurs is commonly necessary, in part to counter moral hazard (Knight 1933: 304–10). This is a compelling argument for excluding from entrepreneurship the bearing of risks to which robustly calculable (unique) probabilities can be assigned. But we will nevertheless attend to discussions of risk-bearing in Cantillon’s text: in the absence, in Cantillon, of any explicit distinction between calculable risk and non-calculable uncertainty in the sense of Knight, references to risks there may concern something akin to uncertainty. (Hereafter, unless otherwise explicitly indicated, the terms ‘risk’ and ‘uncertainty’ are used in these strict senses.)

Whatever more or less important differences there may be between Knight’s and Schumpeter’s concepts of entrepreneurship, for our purpose here, which is to clarify the content and limits of Cantillon’s conception (not Knight’s or Schumpeter’s), there is one key element of commonality. To the extent that Knight’s uncertainty is associated with novelty, the uncertainty-bearing for which Knight’s entrepreneurs hope to be rewarded with a share of revenue from production and sale *fairly* comfortably aligns with the Schumpeterian conception: the uncertainty peculiar to entrepreneurship is that which is associated with unprecedented economic situations; that is to say, associated with forms of innovation. As to the major issue which appears to divide Schumpeter and Knight – whether capital-provision and/or management are entrepreneurship – the following resolution may be offered. Against Schumpeter (1934: 75, 77, 177, 191–95), capital-provision to an uncertain enterprise is to be regarded as entrepreneurship; and somewhat against Knight, managing, operating or otherwise leading an innovative enterprise which promises uncertain outcomes may be regarded also as entrepreneurship, under certain conditions.

The decisive question in this issue is who bears the uncertainty. If an enterprise fails, whether or not the manager has a liability for some part of the capital provided by others (particularly in the case of the manager himself borrowing funds for the enterprise), the manager must be exposed to an uncertainty of pecuniary outcome over and above that attaching to the capital. At minimum, failure may expose the manager to an incapacity to recover a pecuniary return commensurate with the opportunity cost of her time and efforts devoted to the enterprise – partly depending upon the distribution of legal claims in the case of partial failure. Indeed, ordinary workers employed in an uncertain

enterprise which fails are in the same position (see n. 4 above). But there is an important distinction here: workers usually will be contracted for a fixed remuneration (or via a fixed principle of remuneration) – likewise managers may be entirely so contracted – unlike the capital-providers, who are generally residual claimants to the hoped for net revenue of the enterprise (*cf.* n. 10 below). Managers may also be partly or fully residually remunerated. In general, there is a wider variety of possible contractual arrangements, which may involve the entrepreneur-manager receiving a promise of wage-type remuneration and/or remuneration *further* contingent upon outcomes (the wage is contingent also); e.g., profit-sharing and equity. The consequent murkiness as to who *are* the entrepreneurs will only be fully resolved in the final section below. Of course also, one and the same person may act both as (partial or full) capital-provider, and as manager for an uncertain enterprise, thereby simultaneously fulfilling two distinct functions, whether or not contracting a fixed remuneration for the latter. If successful, an unprecedented and uncertain enterprise – say, introduction of a new production method – will eventually become routine and merely risky, so that no entrepreneurship of any kind is entailed, as both Knight and Schumpeter rightly argue.

Casson (1987: 151) discusses also the Hayek (1937) and Kirzner (1973) view of entrepreneurial activity as the acquisition and economic exploitation of information. To the extent that this concerns exploitation of profitable opportunities due to disequilibria, there can be no returns to such activities in equilibrium situations of the kind associated with classical natural prices prevailing, at least in the absence of innovation. This notion of entrepreneurship therefore cannot be relevant to the functional income distribution associated with such equilibria – and Cantillon’s ‘intrinsic values’ belong to the same conceptual family as classical natural prices and associated equilibrium income distribution (Brewer 1992: 61–74; Asprougou 1996: 80–85, 95–98). This notion of entrepreneurship, and its limits in relation to understanding Cantillon, are taken up further in the subsequent sections below. Ricketts (2006: 49–52) notes a further possible dimension of entrepreneurship, in relation to explaining the establishment and structuring of firms, the associated literature arising particularly in response to Coase (1937). These developments in the theory of industrial organization have no distinct relevance to remuneration of entrepreneurship over and above the dimensions of it already considered in this section. In any case, there is nothing resembling a theory of the firm in Cantillon.

4. Risk-Bearing and Entrepreneurship as a Species of Labour

It follows from the previous section that one key sense of entrepreneurship may be dealt with very quickly. It is a striking feature of the *Essai* that this text commonly regarded as seminal for the theory of entrepreneurship contains nothing concerning process innovation at all, indeed, virtually nothing on any kind of economic innovation. Whatever great merit that book has as the first work in the history of economic theory to genuinely resemble a systematic treatise concerning the principles of the subject, economic growth and ongoing economic development do not figure.

There is some slight passing reference to production of new commodities, but this occurs via diffusion from imitation of foreign products, not innovation proper (*RC*: 25, 169, 183, 197). Cantillon of course could not have been unaware that new products come

into being; but merely knowing such an observable fact is not an analysis of product innovation. There is similarly slight passing reference to diffusion of production methods (*RC*: 67). Change in consumption patterns is also partly understood as diffusion from one social class to another (*RC*: 63). Allowance is made, on a few occasions, for the existence of alternative production methods for the same products, but this is not attributed to technical innovation (*RC*: 67, 97, 103–05, 155–57, 201). At one point it is supposed that one tailor ‘works better’ than another (*RC*: 21); but likewise, there is no reference to innovation to explain this. There is one incidental reference to ‘advancing the practical Arts’ (*RC*: 95). In a relatively long passage of argument, Cantillon sketches how an existing silver mine is rendered obsolete by the discovery of a new mine with lower production cost (*RC*: 97–101) – an argument which may be read, in a sense, as a *very* particular case of a process innovation (it derives from discovery rather than invention). It may be allowed also that his treatment of adjustment in the international balance of payments involves systematic ‘macroeconomic’ dynamics (our term of course); but this is merely a cyclical process for Cantillon (*RC*: 185–87, 235). His population theory, while explaining differences in population across different socio-economic systems, is essentially static, confirming the absence of economic development in his system (*RC*: 23, 81–83). There is something of a notion of *historical* development in relation to evolution of private property rights in land, but this is not about economic development or growth (*RC*: 3–7). His proposition that ‘[t]here is never a variation in intrinsic values’ (intrinsic value being his concept of equilibrium cost-price) silently assumes away technical change (*RC*: 31).

Thus Cantillon’s text has nothing to say concerning the key dimensions of entrepreneurship as enunciated by Schumpeter and Knight. What then do Cantillonian entrepreneurs do?

For Cantillon entrepreneurs most definitely constitute a distinct economic function, and class of economic agents. His fundamental tripartite characterization of economic classes in society is most formally stated in our epigraph above (*RC*: 55; also 43); although, as that quotation makes evident, that entrepreneurs form a distinct economic class and function does not mean they constitute a distinct *social* class. As the title of Cantillon’s key chapter on entrepreneurs suggests (quoted in sec. 2), entrepreneurship appears to cover all activities in which income returns are subject to risk (*au hazard*). The distinguishing function is indeed risk-bearing. Who are included? The following is a comprehensive list of all those explicitly mentioned by him: merchants in wholesaling, retailing, and transportation and distribution of commodities; farmers; bakers, butchers, manufacturers, drapers, hatters; beggars and robbers (*RC*: 11–13, 47–55); brewers (*RC*: 125); venturers in mining (*RC*: 161–63); and a long list at page 53:

All the other Undertakers like those who take charge of Mines, Theatres, Building, etc., the Merchants by sea and land, etc., Cook-shop keepers, Pastry Cooks, Inn-keepers, etc. as well as the Undertakers of their own Labour who need no Capital to establish themselves, like Journeymen artisans, Copper-smiths, Needlewomen, Chimney Sweeps, Water Carriers, live at uncertainty [*incertitude*] and proportion themselves to their customers. Master Craftsmen like Shoemakers, Tailors, Carpenters, Wigmakers, etc. who employ Journeymen according to the work they have, live at the same uncertainty since their customers may forsake them from one day to another: the Undertakers of their own labour in Art and Science, like Painters, Physicians, Lawyers, etc. live in the like uncertainty.

Some entrepreneurs do not work at all (*RC*: 87; *cf.* 55–57), Cantillon himself being a striking example (Murphy 1986).

Evidently, Cantillon's entrepreneurship is defined by reference to risk-bearing, but in general involves various forms of risk-bearing *labour* or labour-like activity. (Entrepreneurs who do not labour may be regarded as the limiting case in which entrepreneurship consists in risk-bearing alone.) The crucial question with regard to that defining characteristic is whether the risk-bearing includes also uncertainty in anything resembling the sense of Knight – whether entrepreneurship is associated, to any extent, with unprecedented economic ventures. Cantillon explicitly treats a variety of risks which he regards as susceptible of being adequately or correctly priced, implying that merely calculable probabilities are involved. Relative wage-rates must compensate for 'risk [*risque*] incurred in becoming proficient' in trades, as well as the 'risks and dangers' in the various forms of work themselves (*RC*: 19–21; also 111). Price differences for the same commodities, between the capital city and provinces, will tend to reflect 'the costs and risks of transport' (*RC*: 151–53). The same transport-risk principle applies to the transportation of money, notably between States, and the pricing of bills of exchange (*RC*: 245, 249–53, 257, 279). As a further application of this, since legal prohibitions on exportation of currency and/or gold and silver metal add to the risks of transporting coin and precious metals (i.e., the risk of apprehension and punishment), 'the cost of the risk run to circumvent and elude' prohibition will also be factored into prices (*RC*: 261–67). Risk premia are also embedded in interest rates:

there are in a State many classes and channels of Interest or Profit, ... in the lowest classes Interest is always highest in proportion to the greater risk, and ... it diminishes from class to class up to the highest which is that of Merchants who are rich and reputed solvent. The Interest demanded in this class is called the current rate of Interest in the State and differs little from interest on the Mortgage of Land. (*RC*: 211; also all of 199–213, 217)

The resulting interest rates, partly determined by risk premia, can then enter into prices, in order to cover costs when production is undertaken with borrowed funds (e.g., *RC*: 203, 209).⁵

Notwithstanding these examples of risks which can be priced, can we exclude the possibility that in at least some instances where Cantillon elsewhere speaks of risks and uncertainties he is thinking of non-calculable uncertainty in something like the sense of Knight? Perhaps it is impossible to do so with complete confidence; but there is further evidence which tells against aligning Cantillon's conception with the idea of unprecedented economic ventures. There are a number of instances in which he characterizes entrepreneurial returns in a manner which makes them akin to a 'supply-price' (our term) of entrepreneurial activity – in the sense of a remuneration or price, the expectation of which is required *ex ante* for the activity to be forthcoming. (Whether that remuneration is actually received *ex post* of course is another matter.) With respect to farmers, a particularly important category of entrepreneur in Cantillon's system, there is a clear and frequently stated doctrine of the farmers' normal share in agricultural output as a known *ex ante* magnitude: 'The Farmers have generally two thirds of the Produce of the Land, one for their costs and the support of their Assistants, the other for the Profit of their Undertaking [*le profit de leur entreprise*]' (*RC*: 43; also, e.g., 121).

To be sure, a little further on the farmer is characterized as an entrepreneur who contracts to pay a fixed rent, ‘without assurance of the profit he will derive from this enterprise’. The prices of his outputs

will depend partly on the weather, partly on the demand; if corn is abundant relatively to consumption it will be dirt cheap, if there is scarcity it will be dear. Who can foresee the number of births and deaths of the people in a State in the course of the year? Who can foresee the increase or reduction of expense which may come about in the families? And yet the price of the Farmer’s produce depends naturally upon these unforeseen circumstances, and consequently he conducts the enterprise of his farm at an uncertainty [*incertitude*]. (RC: 47–49)

However, this does not contradict the notion of farmers’ remuneration as an ex ante return: to the extent that the latter uncertainties involve random shocks to outputs, demands and prices, the farmers’ one-third share will fluctuate, but without altering the magnitude of their average return over time (*cf.* 59–63), though there are structural changes to demand as well (e.g., RC: 63–65). This interpretation is confirmed by Cantillon’s doctrine that market prices tend to approximate ‘intrinsic value’ – equilibrium cost-price, including entrepreneurial returns (RC: 27–31, 119; and 63, on ‘proportioning ... production ... to ... consumption’).

In a similar manner to farmers’ returns, price differences for the same commodities, between the capital city and provinces, must compensate ‘the costs and risks of transport’ (as noted above), including covering the profit of the merchant-entrepreneur, ‘or else he would cease his enterprise’ (RC: 153). Likewise, writing of the price of Brussels lace:

the Undertaker at Brussels must find in it not only payment of all his advances *and the interest of the money which he has perhaps borrowed*, but also a profit on his undertaking for the maintenance of his family. If the price ... does not cover all the costs and profits there will be no encouragement for this Manufacture, and the Undertakers will cease to carry it on or become bankrupt (RC: 227; emphasis added)

Notice that the profit is rationalized by reference to the entrepreneur’s consumption, rather than being related to his advances (funds, stock or capital in some sense). This is significant. To the extent that entrepreneurial returns in Cantillon are akin to supply-prices, rather than being a wage-like payment they could alternatively be interpreted as a required rate of profit proportional to capital advanced by entrepreneurs. Some have taken this view; but it is textually unfounded and otherwise highly implausible (Aspromourgos 1996: 116–21; and recently, Berdell 2009: 222, 224–26, 238–40). The decisive test of whether Cantillon has such a notion is whether he has a conception of prices as including profits proportional to capital *in the absence of borrowing* (a genuine opportunity-cost conception of interest). He does not.

A further small but striking piece of evidence for the labour-like character of Cantillon’s entrepreneurship is a passing reference to China:

The multitude of Undertakers is much greater among the Chinese, and as they all have lively intelligence, a genius for enterprise, and great perseverance in carrying it out, there are among them many Undertakers *who are among us people on fixed wages*. (RC: 211; emphasis added)

Ordinary labour and entrepreneurship are substitutes, at least for some range of economic activities. Importantly, the same substitutability in fact is applied to farmers (*RC*: 59–61; also 39). This further confirms that in the main Cantillon's entrepreneurship is labour-like, especially if taken together with the evidence provided above, of the various, quite routine (if risky) production activities he ascribes to entrepreneurship. On the other hand, the following suggests some ambivalence as to whether entrepreneurs' returns are wage-like, rather than a residual claim, at least for some categories of them:

As the Farmers and Masters of Crafts in Europe are all Undertakers working at a risk [*hasard*], some get rich and gain more than a double subsistence, others are ruined and become bankrupt ... ; but the majority support themselves and their Families from day to day (*RC*: 41)

Cantillon immediately adds that such farmers or master-craftsmen who superintend ten labourers could just as easily superintend twenty, 'and this renders uncertain the value of their Labour or Superintendence'. Also, discussing borrowing by entrepreneurs, he speaks as if their income can be decomposed into a wage-like component ('subsistence and upkeep') and a residual profit (*RC*: 207). References to bankruptcy and insolvency perhaps support the interpretation of at least some entrepreneurial returns as a residual revenue (*RC*: 41, quoted immediately above, and 51, 203, 207).⁶

Hence none of the above proves that there are no strict uncertainties *also* in play, in Cantillon's discussions of 'risk' and 'uncertainty' taken as a whole. But nothing like the Knight distinction is ever drawn and the virtually complete absence of any role for economic innovation in his text (pointed out at the beginning of this section) also strongly tells against any implicit role for strict uncertainty. Cantillon's entrepreneurship is a distinct function, and entrepreneurs, a distinct class of economic agents. But this is not innovation and is not connected with unprecedented economic ventures in the manner of Schumpeter and Knight. It is risk-bearing, mostly in labour-like activity; and to the extent that risk can be priced, as Cantillon allows in a range of instances, this does not constitute entrepreneurship as an economic function distinct from provision of labour (or capital). One could enquire further as to what knowledge of probability theory and risk pricing was potentially available to Cantillon. But whatever the answer to that question, all he required for his merely qualitative propositions about the subject was an intuition that risk, understood as an undesirable attribute of activities or contracts, could be compensated for by a payment of *some* magnitude. He did not need to understand the mathematics of risk or insurance pricing in order to recognize that risks could be compensated for by definite premia.⁷ Whatever the relevance of the history of mathematics in relation to Cantillon's views on these matters, *economic* history probably explains the absence of innovation in the *Essai*: ongoing or systematic innovation was absent from the French economy of his time.

5. Conclusion

Though it is almost a commonplace that the theory of entrepreneurship has its beginnings in Cantillon, on the basis of our analysis of his treatment of entrepreneurs, one might rather be inclined to exclude him from the history of the theory of entrepreneurship altogether. On the other hand, he is the first writer in the history of economics to give a

prominent and distinct role to ‘entrepreneurs’ or undertakers within the social economy he theorizes, including systematically incorporating risk-bearing as an economic function central in the economic process.⁸ This is an important contribution in its own right, and a substantial advance in the development of economic theory; but risk-bearing is not entrepreneurship in any very significant sense. This is not to suggest that his account of undertaking is in any sense wrong. Cantillon is entitled to characterize as undertaking or entrepreneurship, risk-bearing economic activities which earn variable revenues, not contracted for ex ante at a fixed sum. Those activities are just not entrepreneurship in the more substantial sense in which the term and concept have been deployed since Schumpeter and Knight, as an activity or function distinct from labour-provision and capital-provision. They are merely ‘undertaking’ of economic activities in the general sense of the term.

Apart from the Schumpeter and Knight conceptualizations of entrepreneurship as innovation or uncertainty-bearing – unprecedented as opposed to routine (if risky) economic ventures – there is of course also the notion of entrepreneurship as the exploitation of profitable opportunities from disequilibria, noted in section 3 above. Even though this cannot be relevant to the entrepreneur incomes associated with Cantillon’s equilibrium ‘intrinsic values’, does it capture the essential activity of his entrepreneurs – the idea, as most recently put by Berdell (2009: 223), that the importance of entrepreneurs in the *Essai* is, along with ‘organizing the economy’, ‘guiding it between ... equilibria’? But Cantillon’s entrepreneurship is not *defined* by reference to this latter kind of activity either. Taken together, all the specific instances of entrepreneurs that he mentions (detailed in the second paragraph of section 4 above) include the whole range of routine production activities, so long as they are subject to ex ante variable returns.⁹ Since there is virtually no innovation in the *Essai*, much if not most of this will merely concern ‘uncertain’ (in the loose sense) market prices due to random shocks to demands or supplies. Recall in this context Cantillon’s conviction that ‘in well organised Societies the Market Prices of articles whose consumption is tolerably constant and uniform do not vary much from the intrinsic value’ – restated without qualification later in the *Essai*: ‘actual Market Prices ... do not vary much from the intrinsic value’ (*RC*: 31, 119).

Nevertheless, while there is virtually no innovation in the *Essai*, there is structural change in the composition of aggregate production, generated by the variable consumption behaviour of Cantillon’s ‘independent’ class, the landowners (and monarch; see esp. *RC*, Part I, Chs. IX, XII, XIV–XVI). In such processes of structural change he undoubtedly conceives of entrepreneurs as effecting the adjustment of production to changing demands – and bearing the risks, perhaps even bearing some genuine uncertainty, associated with these processes (see *RC*: 47–49, quoted in sec. 4 above). Here, something like a coordination role for entrepreneurs, in conditions of disequilibrium, *does* appear. But this is just one aspect of what Cantillon treats as entrepreneurship or undertaking, and it is neither the dominant nor the defining aspect. Most importantly, to reiterate, that role in disequilibrium cannot explain the entrepreneur incomes included in Cantillon’s intrinsic values or equilibrium commodity prices. Contrary to Ekelund and Hébert (1990: 121), ‘Cantillon’s original notion’ of entrepreneurship cannot be *identified* with the activity or economic function whereby ‘prices are brought into competitive equilibrium’.

Only if participants in production or other economic activity are contracted at least partly for remuneration as residual claimants, rather than entirely by way of fixed payments, are they genuine entrepreneurs in the sense of Knight (an issue raised in section 3). This is so whether the services provided by the participant are labour-like or capital-like.¹⁰ The distinction between participants in an innovative enterprise who contract for fixed remunerations and those who are residual claimants goes to the heart of the distinction between who are and who are not entrepreneurs. Hence Ricketts (2006: 41; also 45, 49–50) is right to posit the conception of ‘the entrepreneur’s profit’ as ‘a residual’ – ‘what remains after all contractual commitments have been honoured’ – as a core element of the meaning of entrepreneurship. This can be aligned with the classical notion of natural or normal wage rates, profit rates and interest rates (incorporating premia for risks) as forms of supply-prices, expectations of which are required ex ante for the various forms of labour and capital to be forthcoming. In Cantillon, this classical notion appears in the form of intrinsic values of commodities, associated with normal or equilibrium rates of wages and rents, and to some extent, interest rates.

If the various forms of labour and labour-like activity in Cantillon are contracted for fixed remunerations, these supply-prices are the normal rates of return at which contracts will be made. Ricketts (2006: 41) perceives Cantillon’s fixed/unfixed incomes distinction to fit squarely into this contractual/residual claims dichotomy. But the conception of the return to entrepreneurship as a remuneration for risk-bearing – risks resulting, for example, from variable sale prices of commodities (whether or not this is an adequate conception of entrepreneurship) – does not entail that entrepreneurial returns for Cantillon are a residual claim in the strict sense. If the risks are calculable, then the required returns to cover those risk exposures are equally calculable as a form of necessary minimum remuneration, on average (or supply-price of the risk-bearing). This is so whether the entrepreneurship is conceived of as a labour-like activity, as in Cantillon, or as capital-like (e.g., as in Smith). All entrepreneurial returns derive from residual claims; but there are residual claims in routine activities as well. Not all residual returns are attributable to entrepreneurship (see also the example in n. 6).

Address for correspondence

Faculty of Economics and Business, University of Sydney, Sydney NSW 2006, Australia. Email: tony.aspromourgos@sydney.edu.au.

Acknowledgements

The author is indebted to S. Böhm, T. Endres, P.D. Groenewegen, H.D. Kurz, R. Van Den Berg and Y. Varoufakis for comment, without thereby implicating them in the final product.

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NOTES

1. For some further supporting evidence for Postlethwayt's having an original English version of the *Essai* see The Editors (1896: 165). This note was presumably written by Henry Higgs, then co-editor with F.Y. Edgeworth.
2. Earlier, when first using the term to denote 'the employing class', Walker (1883: 76) adds, 'to adopt a word from French' (see also Walker 1883: 61–62, 75–80, 183, 244–59, 353–63, 431–33). The *OED* documents earlier English uses of the term to refer to undertakers of musical enterprises in particular (and one instance in relation to gambling), though at least some of these uses pertain specifically to French contexts, so that it is not clear whether the word is being used as an English term or a French term. See also Hoselitz (1951: 193–204, esp. 201, or 1960: 234–43, esp. 240–41) on the parallel histories of *entrepreneur* in French and undertaker in English. Notwithstanding the assertion of Casson (1987: 151; also Ricketts 2006: 40), that J.S. Mill popularized the term in England, Mill (1871 [1965]: 401n) uses the term only once, in all seven editions, and as a *French* word, to lament the lack of an adequate equivalent English term. His using it as a French term is presumably why the *OED* does not cite Mill as an instance earlier than Walker.
3. The first (German) edition of Schumpeter's book appeared in 1911. The 1934 English edition is a translation from the second German edition of 1926.
4. As to whether wage-remunerated labour similarly exposed in the same venture is also to be regarded as entrepreneurial, see Knight (1933: 289–90, 301–02). His answer, broadly, is in the negative. The text proper and pagination of the 1933 edition, after the prefatory pages, are identical to the 1921 first edition.
5. The significance of interest rates on loans collateralized with land is that they imply a kind of minimum risk premium, because in these cases the capital sum lent is most highly secured (*RC*: 221). Cantillon also here implies that laws regulating interest will instead increase rates, by increasing risk (analogous to the case of prohibitions on currency or precious metals exports), and asserts the principle of a tendency towards parity between the rental rate of return on land and the 'current' rate of interest, already then a longstanding doctrine (*RC*: 221–23). The latter principle makes evident that interest is not *entirely* attributable to risk.
6. All further references to *entrepreneurs* are at *RC*: 15, 27, 45, 99–101, 129, 135–37, 141, 145–47, 167, 177, 191, 201, 205, 215–19, 225, 229, 289–91, 303, 325. It may be added that if a price-determined residual entrepreneurial profit were due to market price fluctuations *vis-à-vis* intrinsic value, this would not be returns to an unprecedented economic venture; it would be just temporary windfall profit (or loss) – even if some are bankrupted during these fluctuations. The significance of supply-prices versus residual claims is taken up in the following section.
7. Instances of allowance for risk in specification of 'just' prices are to be found already in medieval literature (e.g., Sewall 1901: 18–19; Langholm 1992: 303–06). Poitras (2000: 90–97) notes a degree of Scholastic willingness to allow legitimacy to payment for risk-bearing, in relation to bills of exchange and insurance. Also prior to the eighteenth century there is a notion of parity between the rate of return on land and the rate of interest, but with a premium generally included in the latter, to compensate for differential risk; e.g., William Petty: 'a kinde of ensurance must be enterwoven with the simple natural Interest'; 'Interest always

carrieth with it an Ensurance *praemium*' (Hull 1899: 48, 447). As mentioned above (n. 5), Cantillon also has this parity doctrine.

8. It is a striking fact that undertaking is more salient as a distinct economic function in Cantillon than it is in the subsequent classical writers (e.g., Smith). But in a sense, this relative salience of the entrepreneur in Cantillon is due to capital-provision being missing or at least rather submerged in the economic process as he understood it – a symptom of the essentially pre-capitalist character of his economics. (Related to this, it may be attributed also to the greater salience of self-employed labour in Cantillon's economy.) The lesser prominence of entrepreneurship in, say, Turgot and Smith, is perhaps attributable to the role of capital-provision as such overshadowing it in importance. A somewhat similar point is made by Hoselitz (1951: 212, or 1960: 248).
9. The characterization of Cantillon's conception as 'focusing on replicative entrepreneurs' (Baumol and Schilling 2008: 875) can only be regarded as a contradiction in terms. (See their definition at p. 874.) They might as well have called it routine entrepreneurship.
10. Those who lend funds to an enterprise for a fixed income (interest) return are non-entrepreneurs even if they don't receive the contracted for return – as much as the workers for fixed wages are, even if the enterprise fails and the wage contracts are not honoured. Fixed-remuneration contracts may be exposed to uncertainty or default risk, and the associated remunerations may include premia for that reason.