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The Early History of Entrepreneurial Theory

Words have their history which reflects the history of institutions and customs. When a new word appears in a language or when an old word assumes a new meaning it is proof that social development has made this new meaning necessary, in order to find a designation for the new reality.¹

I. THE CONCEPT "ENTREPRENEUR" IN FRANCE BEFORE CANTILLON

For a long time economists commonly assumed that the concept "entrepreneur" was introduced into economic literature by J. B. Say. This view was supported by a short passage in the popular and widely-read book by Gide and Rist on the history of economic doctrines. Although they were chiefly interested in emphasizing the fact that Smith had neglected to develop the concept, they clearly implied that it cannot be found in earlier works in economic literature. In the seventh edition of their work they added that the role of the entrepreneur had already been underlined by Cantillon.² On the authority of Gide and Rist, the problem was apparently settled and economists turned to other matters. Although Henry Higgs had noted in

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1897 that Quesnay used the word "entrepreneur,"³ this was regarded apparently as a *curiosum* in terminology and duly forgotten. Nobody thought of looking for earlier usage of the concept or its occurrence in the economic literature before Cantillon. Doctor Redlich, therefore, deserves our gratitude for having opened up the matter again and for having drawn attention to the fact that this problem deserves further investigation.⁴

I have been unable to find any evidence that there existed an economic theory of entrepreneurship prior to Cantillon, but the history of the concept entrepreneur, as well as some of its English equivalents sheds light on some interesting aspects of the organization and performance of large-scale undertakings.

The first step in the attempt to determine the earliest use and meaning of the word entrepreneur was a search in historical dictionaries of the French language. The standard work in this field, the *Dictionnaire de la langue française* by E. Littré, gives three definitions of the term *entrepreneur*.⁵ The most general and probably earliest meaning of the term is "celui qui entreprend quelque chose." In other words, it simply refers to a person who is active, who gets things done. This meaning was formed during the Middle Ages in the normal course of development of the French language. In this period many nouns designating an actor were derived from the corresponding verbs. *Entreprendre* (with the connotation to do something) was in use as early as the twelfth century and in the course of the fifteenth century the corresponding noun developed.⁶ The word entrepreneur in this meaning of a person who assumes some task, was not too uncommon during the late middle ages and it was used by such men as François Villon, and the author of *La belle dame sans merci*, Alain Chartier, and even in the form "entrepreneur" as early as the fourteenth century.⁷ It apparently is used not infrequently also by Lemaire de Belges (ca. 1473-ca. 1525), and other authors of the sixteenth century, but by that time it tends to change in meaning somewhat. The enterprise in which the typical entrepreneur of the sixteenth century participates is usually some violent warlike action. Lemaire de Belges calls Hector and other Trojan warriors entrepreneurs, and other French authors of the sixteenth century describe them as hardy, usurping, and intent to risk their lives and fortunes.⁸ We are here in the presence of a development looking towards the later connotations of the word *entrepreneur*. By the beginning of the seventeenth century an *entrepreneur* was considered to be a person whose activity definitely implied risk-bearing (which at that time was equivalent with uncertainty-bearing). But not anyone who bore risks was an *entrepreneur*. Above all, the term was not applied to manufacturers or merchants, but only to that relatively small group of men who charged themselves with really large-scale undertakings. The most common enterprises on a large scale were contracts between the crown or some other public or semipublic body and a wealthy or skilled person for the erection of a building, the furnishing of supplies for the army, or similar tasks. Typically, an entrepreneur was thus a person who entered into a contractual relationship with the government

for the performance of a service, or the supply of goods. The price at which the contract was valued was fixed and the entrepreneur bore the risks of profit and loss from the bargain.

This meaning of the word is very frequent in French legal and economic literature of the seventeenth and early eighteenth centuries and this is reflected in the dictionaries of the time. Furetière, for example, defines entrepreneur as "celuy qui entreprend. Il se dit premerement des Architectes qui entreprennent les batimens à forfait." And he adds the following example: "*L'Entrepreneur de la jonction des mers s'y est enrichi. On le dit aussi des autres marchez à pris fait. On a traité avec un Entrepreneur pour fournir l'armée de vivres, de munitions.*"⁹ The first edition of the Dictionary of the French Academy defines the word even more narrowly: "*Entrepreneur, qui entreprend un bastiment, pour un certain prix, that is, an entrepreneur is a contractor of public works.*"¹⁰

Turning now from dictionary definitions and literary usage to occurrences of the word *entrepreneur* in the legal and economic literature, we find the concept used throughout the sixteenth and seventeenth centuries primarily with the connotation of contractor to the government. From the numerous occurrences in the laws of France, I quote only a few instances. In the last years of the sixteenth century Henry IV attempted to promote the drainage of land in southwestern France. He invited a Dutch engineer Humphrey Bradley to supervise this work and on April 8, 1599 issued an edict appointing Bradley as *maître de digues*. The edict provides among other things for the partition of the drained land between the proprietors of the soil and Bradley and his associates, who are in one place referred to as *iceux entrepreneurs*. In January, 1607, a new edict for the drainage of bogs was issued, confirming the earlier one of 1599, but here the contractor and his associates are not referred to any more as "l'edit Bradley et ses associez," but "lesdits entrepreneurs."¹¹ In similar fashion the term *entrepreneur* was applied to contractors who undertook to build and repair roads, bridges, harbors and fortifications.¹²

What may be of particular interest to economists is that Montchrétien uses the term *entrepreneur*. Writing about the failure to establish French settlements in Florida by Jean Ribaud and Dominique de Gourgues between 1562 and 1567, Montchrétien says: "Voicy le bout des entreprises françoises en la Floride, lesquelles furent destroubees en partie par le peu d'industrie et par la mauvaise conduite des entrepreneurs . . ."¹³ The appearance of the term is of particular interest since the earlier sixteenth century meaning of a person who participates in quasi-warlike exploits and the later meaning of contractor are fused. For the French captains who attempted to establish colonial settlements in Florida, were not just conquistadors on their own; they had been commissioned to this task by Admiral Coligny, and quite apart from what the true relationship was, Montchrétien regarded them as contractors for the King.

An examination of the changing role of the technical and managerial personnel directing the execution of large scale public works throws considerable light on the development of the new meaning of the term *entre-*

preneur, and also helps to understand why the concept could be adopted by Cantillon and his contemporaries to designate the person who bore the risks of any enterprise, not merely in the field of public construction, but also in farming or manufacturing.

The typical entrepreneur — in the Schumpeterian sense — of the Middle Ages was the man in charge of the great architectural works: castles and fortifications, public buildings, abbeys, and cathedrals. Most numerous, most important and most extensive in scope were buildings for religious purposes. Up to the end of the twelfth century, the men in charge of the planning and execution of these works were usually clerics. They were the inventors and planners of the work, they performed the functions of architect, builder, and manager, and, in addition, they usually also hired and supervised the laborers, procured the materials and transacted the business necessary for the execution of the construction project. It is important to note, however, that they bore no risks, since they did not contract for the execution of a finished piece of work, but rather carried forward their building until the resources on hand were exhausted.

Beginning with the thirteenth century the monk or abbot as builder tended gradually to become replaced by lay master-builders. These *maîtres de l'oeuvre* may be regarded as the earliest contractors, but their function was not too clearly determined, since they seem sometimes to have undertaken the entire execution of a project and sometimes to have served purely in the capacity of expert adviser. In the latter case, which apparently was not too uncommon, some cleric (or group of clerics) performed the entrepreneurial functions (that is, over-all planning and supervision of the work) while the expert architect submitted his plans and estimates, and was paid a fee for this work. The architect often lived in another city and visited the construction project at intervals in order to check on the progress of the work or solve especially thorny problems which had arisen during the building.¹⁴

With the decline of the Middle Ages and the increase of secular power, the importance of clerics as creative entrepreneurs and builders tended to decrease, and finally almost to disappear. The chief construction works were no longer cathedrals and abbeys, but fortifications, roads, bridges, canals, harbors, palaces, and other secular public buildings. Under the impact of nascent capitalism the procedures employed in the planning and execution of public works became progressively more rationalized, and entrepreneurial and managerial functions more specialized. Still, the division of labor was often not pushed very far. For example, a man like Bradley was a creative entrepreneur who also managed the routine business arising in his drainage projects. The same may be said of many of the builders of the extensive canal system in central and southern France during the seventeenth century, for example, Guillaume Bouterouge, the *entrepreneur* of the canal of Briare, and Riguet, the first builder of the canal of Languedoc. Similar evidence comes from England. The drainage of the great fen country in Lincolnshire, Huntingdonshire, and neighboring counties in the early seventeenth century was carried through sometimes by "undertakers" or "adven-

turers" who often handled the business and technical side of the work. The harassing experiences of Vanbrugh, the architect of Blenheim (1705-1712), with his laborers, suppliers of stone and other materials — and incidentally also his patroness, the duchess of Marlborough — have been admirably described by Mr. Dobrée.¹⁵

But if we have numerous examples from the seventeenth and later centuries of many public and quasi-public works for which the artistic, engineering, and commercial aspects of the enterprise were performed by one and the same person, it is nevertheless true that a division of labor begins to set in and a progressively clearer distinction is made between the architect or engineer (who specializes in the artistic or technical work) and the entrepreneur or contractor (who takes on the commercial aspects of the task). The architects especially felt that their services were of a higher quality than those of ordinary master-masons or contractors. This sentiment was enhanced in France by the formation of an Academy of Architecture, and in 1676 *entrepreneurs*, master-masons in the building trade, were prohibited from adopting the designation "*Architecte du Roi*," an appellation which was reserved to those men whom the King had chosen to compose his Academy of Architecture, to which only outstanding artists were admitted.¹⁶ With the growing importance of secular public buildings and with the progressive division of labor between the technical or artistic creator of a new construction on the one hand and the contractor on the other, the contractor became an entrepreneur who performed a twofold role. He executed the economic functions in achieving the completion of a work; that is, he was responsible for bringing together the factors, labor, materials, machines, and so on, which were necessary to complete the physical production of a work. In this role he appears like the modern entrepreneur in the economic theory of the nineteenth century, who combines the factors of production in the required proportions for the attainment of some output. But, in addition, he does this on his own account. He bears the risk, he is held to his bid by the public authority with which he contracted, and he has the task of seeing to it that his costs not only do not exceed, but remain as much as possible below the price for which he has contracted to perform the work. Although this entrepreneur was not the object — so far as I am aware — of investigation by economic writers before Cantillon, his function is, nevertheless, essentially identical with the description given by J. B. Say.¹⁷

The final stage of development of the entrepreneur as government contractor can most clearly be seen in the work by Bernard F. de Belidor, *La science des ingénieurs*. This book was first published in 1729, and is thus contemporary in conception with the dictionary of Savary and the *Essai* of Cantillon. Belidor's book was considered the most authoritative text of its kind in its day. It was found worthy of special approbation by Vauban, and the author himself became director of the *Ecole des Ponts et Chaussées* when it was founded in 1752. Although the bulk of Belidor's work is concerned with the technical aspects of various kinds of public construction,

he discusses in several places the role of the *entrepreneur* and his relation to the *ingénieur* in the planning and execution of public works. Although Belidor's statements on the functions of entrepreneurs are intended merely as a description of actual relations, his discussion of this topic might be regarded as a theory of entrepreneurship, since it clearly exhibits the social role and the motivations of the entrepreneur as commonly understood in the early eighteenth century.

Belidor describes the procedure by which public works (for example, the construction of a fortress) are contracted for. The technical designs are made known by public advertisement and a date is fixed at which entrepreneurs are to gather in order to extend competitive bids for the execution of the work. The contract is awarded to that entrepreneur "qui fait la condition du Roi la meilleure." This contract obligates the entrepreneur to meet the following conditions: the entrepreneurs must furnish all materials, funds for wages, vehicles, scaffolds, bridges, boards, tools, machines, ropes, and generally all things necessary to the accomplishment of the work. They undertake to finish the work within a given time and according to the exact specifications made by the *ingénieurs*. The work is to be executed with all possible care and is subject to inspection and certification, in accordance with custom, by the *ingénieur* in charge. The contract price is to be paid in installments in accordance with the progress of the work and the various "advances" have to be countersigned by the principal *ingénieur* in charge of the technical aspect of the work. The entrepreneur was, thus, confronted with a situation where he knew the total revenue he could expect, and where he could maximize his profit by minimizing costs. He therefore clearly bore the risk of profit or loss, and of the magnitude of that profit or loss.

After having stated the formal legal aspects of the matter Belidor gives advice to the *ingénieur* on his conduct in the matter. He starts with the assertion that the entrepreneur is interested in the work only "en vue du gain," and the *ingénieur* thus must always observe that everything is done in good order and that all "maifaçons ou de la négligence dans le travail" be avoided. There follows a long list of possibilities of cutting corners, which must be most carefully observed. At the same time the *ingénieur* should bear in mind that the entrepreneur wants to make a profit. He should therefore advise him of how he can reduce his costs, if possible, but if the entrepreneur "a fait un mauvais marché, ou qu'il lui arrive dans le cours du travail des contre-temps fâcheux et inévitables, ce n'est point à l'ingénieur à y entrer." Finally Belidor warns the *ingénieur* to remain untouched by the "tons plaintifs qui sont assez ordinaires à ces Messieurs."

In conclusion Belidor asks whether it is more advantageous to have one contractor for the entire work or several for the various parts of it. He favors a single entrepreneur, because there is less mutual recrimination and faultfinding; because it is easier to locate responsibility; because a more consistent time schedule can be maintained; and because in case of need a large entrepreneur can always find sub-contractors. Hence even if the vari-

ous parts of the work have been contracted for by different entrepreneurs, Bellidor prefers that one of them be placed in the position of ultimate command and responsibility.¹⁸

We see, therefore, that Bellidor's theory of entrepreneurship is the exact counterpart of Cantillon's theory which originated at about the same time. In Cantillon's theory an entrepreneur is someone who buys at a certain cost price and sells at an uncertain price; according to Bellidor the entrepreneur sells at a certain price, but his costs are uncertain. The net effect is the same in both cases, since the gains or losses of each transaction, and hence the total income of the entrepreneur are uncertain.

II. ENGLISH CONCEPTS DESIGNATING ENTREPRENEURIAL ACTIVITY BEFORE ADAM SMITH

Before entering into a discussion of entrepreneurial theory after Cantillon, I wish to draw attention to some English equivalents of the word *entrepreneur* as it was understood in the seventeenth and early eighteenth centuries. The most common English equivalent for the French entrepreneur was the word "undertaker," and sometimes "adventurer." The second term was used, as is well known, from the fifteenth century on in the name "Merchant Adventurers"; the term was also applied to Irish land speculators and other entrepreneurs in farming, drainage projects, and similar occupations throughout the seventeenth century. But the term tended to become obsolete in this special meaning during the eighteenth century. In Dr. Johnson's dictionary (1755) the term adventurer is defined: "He that seeks occasion of hazard; he that puts himself in the hands of chance."¹⁹ It is curious to note that the word adventurer enjoyed a short revival in the translation of *Say's Traité* by C. R. Prinsep. He justifies this practice by saying that "the word *entrepreneur* is difficult to render in English; the corresponding word, *undertaker*, being already appropriated to a limited sense."²⁰

The word undertaker was harder and appears to have been used more frequently and in more varied meanings. In general, its history was parallel to the French word *entrepreneur*. At first (in the fourteenth and fifteenth centuries) it chiefly designated simply a person who took upon himself the doing of some task. Very soon, however, it acquired the meaning of someone who executed on his own risk a task imposed on him by the government. For example, Robert Payne, discussing in 1590 the establishment of landed estates by Englishmen in Ireland under Queen Elizabeth, talks of "the worsser sorte of vnderakers which have seignories of her Maiestie." These he criticizes for not having attracted English "servants," because they "find such profite from the Irish tenants . . . So that they care not although they neuer place any English man there." He contrasts them with the "better sorte of vnderakers" who "do seeke by all meanes possible to plant their landes with English mē according to the meaning of her Maiesties grant."²¹ Payne refers to the so-called Munster undertakers who were given, by an Act of 1586, estates in fee at low rents in the counties of Cork and Waterford with the condition of settling on an average estate from 75 to 85 Eng-

lish farmers, freeholders, copyholders, and cottagers. The name "undertakers" was applied to the settlers, because they undertook to observe these and other conditions enjoined by the Queen. It is plain that the word undertaker in this context was equivalent to contractor rather than to the later meaning of entrepreneur, for Payne chides those who act rationally in the desire to make maximum profits as "bad" and praises those who regardless of their own profit interests scrupulously fulfil the conditions of the grant as "good" undertakers. The same criticism is again voiced about ten years later by Fynes Moryson, who makes the undertakers partly responsible for the rebellion under Tyrone in 1598. From Moryson's account it appears that there were few "good" undertakers, for after listing the conditions of settlement, he continues "these and like covenants were in no part performed by them. Of whom the men of best qualitie never came over, but made profit of the land."²²

But Moryson's work is evidence that the word undertaker was more generally used to designate a government contractor. He paraphrases a letter received on September 27, 1602, by the Lord Deputy at Dublin from the Lords of England dealing with abuses in the supplying of the English army in Ireland with victuals and remedies therefor. Food was dispatched from English ports, but instead of arriving at its proper destination, it was suspected that it had been sold freely upon arrival and had even fallen into the hands of the rebels. The Lords of England therefore proposed that "so soone as any contract is made with the undertakers, wee send an abstract thereof unto your Lordship" so that on the basis of this information the shipments could be checked upon arrival. The Lords of England moreover disclaimed belief that irregularities occurred at the English end, since shipments were checked there by the Surveyor and "the undertakers absolutely denie the sending of any victuals thither, but such as is to serve the Souldier, and to performe the Contracts."²³ Here again the word undertaker is used in a context in which the contract relation with the government is emphasized, but the meaning is clearly extended to apply not merely to a small group of settlers, but to any person standing in this relationship with the public power.

Gradually the meaning of the term undertaker came to be extended. I found in a letter of 1612 from Paris a reference to a "french-man called Moisset, otherwise Montauban heerebefore a taylor, but one y^e that hath enriched himselfe to y^e valewe of three or foure hundred thousand crownes, by having been one of the principall undertakers of ye great farme of sale."²⁴ The term was also used to designate those men who obtained grants from the crown—and later from Parliament—to drain the fens. Here (as well as in the case of the farming of the French salt tax), the notion that the undertaker was to make a profit was already clearly implied. Sir William Dugdale quotes an order of the Lords of the Council, dated 12 July, 1620, which reads in part: "that . . . good security should be given to the undertakers for a moiety of the clear profits, which by the draining should be improved upon every man's ground."²⁵

Gradually the emphasis on the contract or quasi-contract relationship

with the government in which an undertaker found himself lost ground and more weight was placed on the circumstance that an undertaker was involved in a risky project from which an uncertain profit may be derived. In this sense the word undertaker was in competition with the word projector. Although there are instances, chiefly from the eighteenth century, showing that a projector was thought of as an innovator, the usual distinction made between the undertaker and the projector was that the former was thought to be an honest man engaged in a business the outcome of which was uncertain, whereas the other was usually thought of as a schemer, cheat, or speculator. This distinction is expressed quite clearly in a passage from a rather curious work by S. Primatt, which first appeared in 1667. Writing about the advisability of opening coal mines in various parts of England, the author says:

There are divers other sorts of Collieries in Inland Countreies in *England*, whose profit consists in an Inland Market; and they do produce in many places great profit to the Undertakers, but are as uncertain as others . . . There are as many Projectors (who have more of fancy and imagination in their Designs, than of any real operation) that do undertake in the dreining these and other sorts of Mines.²⁶ This passage displays very plainly the special connotation of the two words, the meaning of which was never very far apart.²⁷ Another characteristic of the word undertaker also seems to have been that it generally referred to the entrepreneur of sizeable enterprises such as coal mines, drainage operations and the like. In fact, the earliest use of word undertaker, designating an entrepreneur of a business involving risks, that I have found occurs in a document of the town council of Nottingham of 13 September, 1630. This document is a grant of monopoly to a group of Nottingham burglers, headed by "maister Maior" to "sincke a pitt or pits in the townes woods and wasts." The document specifies conditions under which persons who want to "adventure a partt or proporcion of monie" shall participate in the profits and concludes that "this companie [i.e., town council] are from tyme to tyme to assist theise Vndertakers as theire shalbe cause" to ensure the profitability of the enterprise.²⁸

Additional evidence that an undertaker was thought of as a large entrepreneur could easily be adduced. One or two more examples must suffice. In a letter written around 1701 to Robert Harley, William Penn talks about the depletion of British timber owing to the extension of mines, and adds: "If great undertakers there would fall upon it here we might supply England and give her woods time to recover, and convert these countreies to arable pasture, into the bargain."²⁹ Here the undertaker is depicted almost in terms reminiscent of Veblen's Captain of Industry. He is really a creative entrepreneur who not only engages in profitable projects but makes the desert bloom. The socially beneficial effect of private interest, the very epitome of what Sombart understood by the effect of the spirit of capitalism, cannot be expressed more clearly and concisely.

By the time this letter was written, the old meaning of the word undertaker, in the sense of government contractor, had almost entirely passed out

of use. Nevertheless it still appears occasionally, especially in official documents. For example, the *London Gazette* of 9-11 February, 1709, contains a despatch from The Hague in which it is reported that "an Agreement is concluded with Undertakers for furnishing the Magazines on the Frontier with Forage, as they have before done for as much Bread as shall be requisite for the Subsistence of the Troops, and as many Waggons as shall be needed for the Publick Service. It is now under Deliberation how a sufficient Fund, or the necessary Credit, may be settled, for enabling the Undertakers to perform their Contract."³⁰ Here the emphasis on the undertaker as government contractor is quite plain, but this meaning tends to disappear completely; at any rate in non-official language, during the next two decades. By the middle of the eighteenth century an undertaker was quite simply a big business man, and more often an ordinary business man. In this sense Adam Smith writes, as if in passing, of the "undertaker of a great manufacture,"³¹ and Postlethwayt, whose *Dictionary* contains in translation a good part of Cantillon's *Essai*, uses the word "undertaker" as the straight translation of the French word *entrepreneur*.³² But by the time of Postlethwayt and Smith the more general meaning of the word tended to become obsolete and only the special meaning of an arranger of funerals survived. The undertaker in English economics was replaced by the capitalist who only toward the end of the nineteenth century again gave way to the entrepreneur.

III. THE THEORY OF ENTREPRENEURSHIP OF THE PHYSIOCRATS

If the word undertaker disappeared from the arsenal of English political economy after the middle of the eighteenth century and with it a proper theory of entrepreneurship, the same was not true in France. Cantillon's work enjoyed considerable popularity after its publication and the writers of the Physiocratic school were thoroughly familiar with it. Indeed, it has been surmised that the marquis de Mirabeau, the father of the famous orator of the Revolution, intended to plagiarize it and publish it as a work of his own.³³ More important than this episode is the fact that François Quesnay seems to have been influenced to some extent by Cantillon. Although the claim cannot be made that Quesnay's views on entrepreneurship are directly derived from Cantillon, there is no doubt that in Quesnay's earliest economic writings in the great *Encyclopédie*, in which the rudiments of his views on the social organization underlying a modern economy are outlined, the aspects relating to the norms of agricultural production are reminiscent of Cantillon's discussion of the same topic. For in his article "Grains" Quesnay cites with approval a passage by Cantillon in which the latter mentions the advantages of large farms. In the same context Quesnay then continues to describe the operator of a large farm as an *entrepreneur* "who guides and turns to account his enterprise by his intelligence and his wealth."³⁴ We shall see a little later how this tersely expressed idea was developed into a new theory of entrepreneurship by Quesnay's disciples.

But first we must turn to a somewhat fuller account of Quesnay's system in order to determine more exactly the proper place of the entrepreneur in the socio-economic structure.

The most appropriate designation which can be given to Quesnay's system is that of agrarian capitalism. The outstanding feature of it is that the part played by the various classes is related to, and, in fact, determined by the economic function the members of each fulfil. Analysts of the system of Quesnay have commonly been interested in following up his division of society into the productive, sterile, and proprietary classes. In examining the real basis for this division they have come to conclude that Quesnay erred, above all, in his evaluation of the sterile class. They have thus rejected the system outright as contradictory with reality, or have spent much time and effort in the attempt to elucidate the reasons why Quesnay and his disciples did not assign productive powers to industrial occupations.

I propose to follow another and, for our purpose, more fruitful course. We are not interested primarily in relating Quesnay's system to the real world of his day, but in finding whether it was possible for him within his system to develop a theory of entrepreneurship which is an advance over that of Cantillon. We will, therefore, leave out of consideration at first the sterile class, and concern ourselves only with the relations of the proprietary and the productive classes. Each of these classes is really composed of two groups of persons. The first includes the sovereign (and his associates exercising political power) and the landowners; the second includes the farmers and the farm laborers. Quesnay himself regards the first class as homogeneous and makes the right of the sovereign for part of the *produit net* contingent upon his being a landowner, deriving his prerogative to levy taxes upon the historical role of the monarch, who once "owned" all the land in the state. Only his disciples, particularly Le Mercier de la Rivière and Baudouin, sharpened the distinction between the sovereign and the rest of the proprietors. But since we are concerned here not with the political theory of the Physiocrats, but with their explanation of the social structure in terms of economic factors, we may regard the King as the biggest landowner. The proprietors have a right to the *produit net*, not because of their power to exploit the rest of society, nor (with the possible exception of the sovereign) because of political privilege, but as an outflow of their contribution toward the attainment of a gross product (*produit brut*). Their income is justified on the basis that they made the "*avances foncières*," that is, that they contributed their property to the productive process. This is the basis on which they derive a title to income and that income is the *produit net*.³⁵ Rent in Quesnay's system is thus the income of landowners, purely as a consequence of the fact that they are owners of the only productive agent apart from labor. But whereas the net product of labor is zero (in agriculture and industry), because the laborer consumes (in equilibrium) values equal to that produced by his efforts, the net product of land may be, and in a "well-regulated kingdom" ordinarily is positive. The difference between the gross product and the net product constitutes the income of the farmer and other persons engaged in agricultural produc-

tion. We now have to analyze more closely the components of this part of the income of society. The outlay of the farmers is composed of two parts, the "*avances primitives*" and the "*avances annuelles*." The former are roughly speaking expenditures on the maintenance and replacement of the fixed capital of the farm, the latter are composed of expenditures on raw materials used up annually in the production process and wages for agricultural laborers. The total national product is thus equal to the sum of the *avances annuelles*, *avances primitives* and *produit net* (*avances foncières*).³⁶

Quesnay has represented in his *Tableau économique* the picture of a static society in which no accumulation of capital occurs and where no uncertainty is present. The same gross product is produced year after year and the same shares of it are distributed among the various classes. Hence it follows that the *avances primitives* are equal and certain every year and that consequently the income of the tenant farmer, who performs the entrepreneurial role is also certain and fixed. It appears, therefore, that in Quesnay's system the theory of Cantillon, who regarded the bearing of uncertainty on the entrepreneurial function, has been given up. The entrepreneurial theory appears to have become colorless; an entrepreneur is simply a tenant farmer who rents a property at a fixed rent and produces a given output with given factors at given prices.

This view is lent added support by the fact that Quesnay has nowhere provided a definition of the term entrepreneur or a description of entrepreneurial activity. I have found three places in his writings where the word *entrepreneur* is mentioned. One was mentioned earlier: Quesnay's remark that the operator of a large farm is an entrepreneur. The second time the word is used occurs also in the article "Grains" where Quesnay employs it to designate businessmen (members of the sterile class) whose large income he explains because others make equivalent expenditures.³⁷ Here the word is treated as a common term which needs no special definition or explanation. The third occurrence is in a letter to the Intendant of Soissons, which was written in 1760. Quesnay is here again emphasizing the advantages of large farms over small ones and says: "Vous dites encore que les trop gros laboureurs ne peuvent pas satisfaire au travail de leurs grandes entreprises. Le fermier ne doit pas être le travailleur. Un gros fermier est un habitant notable, un riche entrepreneur qui est continuellement à cheval, pour se porter ponctuellement à toutes les parties de son entreprise."³⁸

Here again the word is used in a colorless meaning. The entrepreneur is simply the *patron* who does not participate in the regular labor process, but supervises it. Quesnay thus does not use the term *entrepreneur* in a technical sense, he simply employs it in a connotation which it has generally acquired in the second half of the eighteenth century. The *Encyclopédie* defines *entrepreneur* simply as "il se dit en général de celui qui se charge d'un ouvrage: on dit un *entrepreneur* de manufactures, un *entrepreneur* de bâtimens."³⁹ And Ferdinand Brunot who has written the most elaborate and erudite history of the French language concludes that in the

later eighteenth century the term is applied to anyone at the head of an enterprise in the most general sense.⁴⁰

But although Quesnay and his disciples did not employ the term entrepreneur in a technical sense, they nevertheless elaborated a full theory of entrepreneurship which contains many modern elements. In a nutshell it is contained in the passage from Quesnay cited earlier, but it was more fully and systematically stated by Baudeau. I have mentioned before that the seeming absence of such a theory in the writings of Quesnay is due primarily to the fact that the *Tableau économique* contains only a static analysis. As soon as this assumption is relinquished, the entrepreneurial function takes on full life.

Although the *produit net* has been regarded by some critics of physiocracy as a surplus, this view is only partially correct. In a purely physical sense it is the surplus over the necessary costs of production, but within the nexus of a monetary economy, the Physiocrats assumed that rents were a cost, determined in advance of production. In fact, they favored stabilizing rent payments as much as possible by advocating long leases.⁴¹ Thus in practice, they envisaged a system in which the tenant farmer would be confronted with a very rigid cost structure. His rent payments are fairly fixed and similarly the wage rates are fixed (and correspond to the value of the maintenance of a laborer). But the actual outcome of the harvest is indeterminate, since it depends upon weather and other factors which the tenant farmer cannot foresee. Similarly, the price of the crop is uncertain. The entrepreneur is thus in the position which Cantillon has posited, his expenses are certain while his revenue is uncertain; his net income is thus subject to "risk." This is clearly expressed by Baudeau when he says: "Le *Cultivateur en chef* est celui qui fait à ses dépens, à ses risques, périls et fortunes les avances . . . qui conduit enfin pour son propre compte tout l'ensemble de l'exploitation."⁴²

But more than that. Since the agricultural entrepreneur carries on production on his own risk and his own account he must have the capacity of economically combining the appropriate goods and services to the end of his greatest profit. Here again Baudeau is quite explicit. He says: "Tel est le but des grandes exploitations productives; premièrement de doubler, tripler, quadrupler, décupler s'il est possible la récolte . . . ; secondement d'épargner le nombre des hommes employés à ce travail, en les réduisant à la moitié, au tiers, au quart, au dixième, s'il est possible."⁴³ But in order to do this, the *cultivateur en chef* must be a truly innovating entrepreneur. Baudeau is fully aware of the forward steps that invention makes possible. He never tires of pointing out that cultivating is an art, and that the progressive state of cultivation is dependent upon the fact that the entrepreneurs be "habiles," that they "aient acquis les connaissances de leur art, . . . soient animés par une grande émulation à mettre leur savoir en usage."⁴⁴ And if the cultivators are often ignorant of the most advanced methods, they need to be instructed. The writings of the Physiocrats are full of proposals to improve agricultural techniques. They propose the translation of English texts on agriculture; they propose the nationwide distribution of

handbooks and guides describing new tools, new crops, and new procedures; they propose prizes, honors, agricultural research, model farms, and pilot plants. They have no doubt that, if all this knowledge becomes available, the innovations will be adopted, and they rely upon *laissez-faire* and the force of self-interest (and the prevalence of large farms, which can economically adopt the new techniques and other innovations) to attain this end.⁴⁵

It can be seen that the concise phrase of Quesnay describing the entrepreneur as a person "qui gouverne et fait valoir son entreprise par son intelligence et par ses richesses" is pregnant of a wealth of hidden meaning if interpreted in the light of the entire system of Physiocratic doctrine. The entrepreneur bears uncertainty, organizes and supervises production, introduces new methods and new products, and searches for new markets. In order to do this properly he must gain free access to a wide variety of markets, and he must be able to rely on the government to provide for him the utmost freedom of action in his undertakings. Although essentially devoid of political power the large tenant farmer, that is, the agricultural entrepreneur, is in the very center of the economy. All else turns about him. Baudeau and the more orthodox members of the Physiocratic school, though not unmindful of the requirement that a successful entrepreneur must be wealthy, stress primarily his cleverness, knowledge and willingness to operate rationally by using the most productive methods. Turgot, the one member of the school who stood with one foot outside it and was anything but orthodox, stresses more the wealth which the entrepreneur must have in order to succeed.

It would be wrong to exaggerate the differences between Baudeau and Turgot, for in the last resort they participated in the same intellectual current and were, on the whole, in the same camp. They both derive their economic theorizing from Quesnay and on the basis of his teaching an entrepreneur must be endowed with and put to account both his intelligence and his wealth. The difference between Turgot and Baudeau is thus primarily one of emphasis, but as such it is unmistakable. Baudeau's entrepreneur is a farm operator who plans, organizes, risks, and happens to be a wealthy man. Turgot's entrepreneur is a rich industrialist or merchant, who, in order to accumulate more wealth, engages in certain risky operations or plans and supervises productive activity.⁴⁶

This new emphasis given by Turgot to the entrepreneurial concept also comes out in the terminology he uses. He usually does not employ the term *entrepreneur*, but speaks of "*entrepreneur manufacturier*" or "*entrepreneur capitliste*." In reality this last expression is pleonastic since Turgot regards the designations *capitliste* and *entrepreneur* as synonymous.⁴⁷

The difference in emphasis between Baudeau and Turgot seems to derive from the fact that each paid primary attention to a different branch of production. Baudeau was concerned, above all, with agriculture. Under the technological conditions prevailing in eighteenth century French agriculture the major non-human factor of production was land. Compared with it, capital was of relatively minor proportions. The most expensive factor

in this branch of production need not be bought, but could be leased by the entrepreneur. At the same time the problem of increasing agricultural output by means of better techniques and better organization of farm labor was imperative. The English had shown the way and were known to experiment with and actually use superior methods.⁴⁸ Hence Baudeau rightly emphasized the need for knowledge and information ("intelligence") of the agricultural entrepreneur. In contrast, Turgot was primarily concerned with relations in the industrial sector of the economy. Although he grants that the *ferrrier* is an entrepreneur, he considers primarily the *entrepreneur-manufacturier*. But the industrial entrepreneur could lease only a small part of the assets used in his productive enterprise. In industry new capital had to be created constantly. Here the process of capital accumulation was much more obvious and visible than in agriculture, although it was not completely absent there either. Thus the function of the entrepreneur as the supplier of capital (or, what is the same thing, funds for accumulation) receives primary attention.

Turgot's views of entrepreneurship are thus midway between the traditional French view which sees in the entrepreneur chiefly a risk-bearer (Cantillon and to a certain extent Baudeau) or planner of production (Say and to a certain extent Baudeau) and the view of classical British economists who saw in him chiefly a supplier and accumulator of capital. That this latter view tended to predominate in British political economy during the last quarter of the eighteenth and the first half of the nineteenth century is not surprising in view of the rapid growth of industry which ostensibly set the pace for economic development. Even in France, whose industrial revolution did not really get under way until the end of the first quarter of the nineteenth century, Chapal estimates that coal output more than tripled in the thirty years between the French revolution and the appearance of his book and that other industries showed equivalent increase.⁴⁹ In view of this it is not surprising to see that in the English economic literature the entrepreneur was identified with the capitalist and that the latter concept tended to supersede the former. Only with the more refined analysis of economic functions in a complex society which began after the middle of the nineteenth century and culminated in the Marshallian system was the entrepreneur rediscovered by English economists.

IV. THE LINKS BETWEEN CANTILLON AND SAY

If the analysis at the end of the preceding section is accepted, then it is at once clear that Say's insistence on the entrepreneurial function as distinct from that of the capitalist is a distinctive mark of his work. Is it possible that this trend of thought was instilled in him by the experiences of his life? None of the notable British economists of that period, Smith, Lauderdale, Malthus, Ricardo, James Mill, Senior, had had any practical experience as entrepreneurs. They were professors or men whose means had been acquired by inheritance or on the stock exchange. But Say had been an industrial entrepreneur. From 1804 to 1812 he was running a spinning

factory, which he had established first at Maubuisson and transferred in 1806 to the village of Aulchy-les-Moines (Pas-de-Calais) and which he could maintain only by constant efforts in combating the negligence, indifference, and listlessness of his workers and by braving adverse conditions imposed by nature as well as the concealed hostility of many of the inhabitants of Aulchy and environs. It is not unlikely that these experiences impressed upon him the peculiar role played by the entrepreneur who must be a real leader of men, who must be capable to plan productive operations under his guidance and who must be willing to supervise constantly the execution of his plans. It should be noted that the full fledged theory of entrepreneurship was elaborated by Say only in the later editions of his *Traité* and in his *Cours*, which both appeared after his return from Aulchy to Paris.⁵⁰

However, this leaves the question still open whether any intellectual connection between Cantillon and Say can be established. That there existed a purely linguistic bridge in the fact that the word *entrepreneur* was quite commonly used can hardly be considered as conclusive. Another link would be through the works of the Physiocrats. It has been shown that Cantillon's work was known to them, and Say knew, of course, the work of Quesnay and Turgot. But the evidence is too tenuous to provide us with any tangible data which would indicate that Say was influenced through them, even indirectly, by Cantillon. A third possible link is through Say's correspondence with Dupont de Nemours. But these letters deal with the more general methodological question of economics and do not descend to such special questions as entrepreneurial theory.⁵¹ Finally, there exists another possible link through Germain Garnier, the translator of Smith's *Wealth of Nations*. Garnier published (anonymously) a small book in 1796, entitled *Abrégé élémentaire des principes de l'économie politique*, which was strongly influenced by Cantillon and which in some places repeats passages from Cantillon verbatim. Say was familiar with Garnier's work, but since he regarded Garnier chiefly as a belated representative of Physiocracy, his reaction against him was primarily negative. It is not likely, therefore, that Say would have adopted Cantillon's views on entrepreneurship from this source. Moreover, if we consult the references in Say's work to Garnier, we find that they are concerned exclusively with questions of economic conditions in antiquity, Say's refutation of the Physiocratic views of Garnier, and a few minor points on the value of labor, taxes and the computation of national wealth, which all are a consequence of Garnier's adherence and Say's opposition to the economic theories of Quesnay and his school.⁵² There do not seem to be any other more or less direct intellectual links between the theories of entrepreneurship of Cantillon and Say. But we must ask whether there is much sense in looking for such links. Are the two theories so similar or so closely related that one would suspect one to be descended from the other? On the whole, the answer must be negative. Although Cantillon and Say both elaborated a theory of entrepreneurship, they have little more in common than the word entrepreneur (and this had been used, as we have seen, also by Quesnay, Turgot, and others) and

certain obvious externals. But these facts alone do not permit us to suspect that the study of the history of ideas would adduce evidence which might establish an intellectual relationship between the two theories. Marx and Marshall, who were only one generation apart, and who might also have known one another personally, both have a theory of capital, but I am not aware of anyone having suggested that the two theories are related, even as contradictions of one another. And yet both men use the same term and certain externals in their theories are identical.

Cantillon's theory of entrepreneurship is very simple. The function of the entrepreneur is to bear uncertainty. Cantillon explicitly excludes from his theory the notion that the entrepreneur must also be in a position to supply capital, and he even says explicitly that "All the rest are Undertakers, whether they set up with a capital to conduct their enterprise, or are Undertakers of their own labour without capital, and they may be regarded as living at uncertainty; the Beggars even and the Robbers are Undertakers of this class."⁵³ Finally there is no indication in Cantillon's work that the entrepreneur was also a planner, organizer, and supervisor of the factors of production which he employed. We have seen that the Physiocrats and Turgot developed a much more elaborate set of theories of entrepreneurship in which entrepreneurial activity is described as embracing more than one type of behavior and in which different writers have variously stressed the planning and organizing function, the innovating function, or the capital supply function of the entrepreneur. Say's theory of entrepreneurship is much closer to that of the Physiocrats than to that of Cantillon. And yet it may justly be doubted whether the works of Turgot or Quesnay should be regarded as a source of Say's inspiration, precisely because of his fundamental opposition to their theories. True, Say had admiration for their advocacy of *laissez-faire* and, in particular, the economic policy of Turgot. But while he considered Turgot to have been a great statesman he approved of his statesmanship only because he regarded Turgot's views as not having been derived from the "secte économiste," an interpretation which is, on the whole, certainly wrong.⁵⁴ All this leads me to believe that Say developed his theory of entrepreneurship independently, and that his experiences as a master cotton spinner rather than any intellectual forbears should be made responsible for his ingenious contribution to classical economic theory.

In analyzing Say's ideas on entrepreneurship two views must be strictly separated: the pure theory of entrepreneurship which emerges if one considers the function of the entrepreneur in economic equilibrium and the empirical descriptions of what modern capitalist entrepreneurs typically do. I shall attempt in conclusion to state and examine these views briefly.

Say's theory of the entrepreneur begins with his tripartite division of functions which must be met in any process of production. These functions are exhibited by operations of three kinds, the research of the scientist, the "applications" of the entrepreneur, and the performance of the laborer. (*Cours*, vol. I, p. 97). Although all three operations may be performed by one and the same person they can be isolated analytically. The entrepreneur is therefore not a member of a distinct social class (as with the

Physiocrats) but must be regarded as the performer of a social function, which does not necessarily correspond with a special position in the structure of society.⁵⁵ But what are the "applications of the entrepreneur"? The entrepreneur is the principal agent of production. For although the other functions are admitted to be indispensable for the creation of any good or service, the entrepreneur puts them to work. "It is he who estimates needs and above all the means to satisfy them, who compares the end with these means. Hence this principal quality is to have good judgment. He can lack personal knowledge of science, by judiciously employing that of others, but he can avoid dirtying his own hands by using the hands of others, but he must not lack judgment; for then he might produce at great expense something which has no value." (*Cours*, vol. I, p. 100). The function of the entrepreneur is thus that of mediator. He combines the means (factors of production) in order to achieve as an end the production of a good and his function consists precisely in performing this combination. He is, as Say says in another place, "l'intermédiaire entre toutes les classes de producteurs, et entre ceux-ci et le consommateur. Il administre l'oeuvre de la production; il est le centre de plusieurs rapports." (*Traté*, p. 371. Italics not in original).

But these "applications of the entrepreneur" are not random. As can be seen from the quotation in the last paragraph, they must lead to the creation of an object or service possessing value. The combinatory activity of the entrepreneur thus attains its full meaning only if the proper relationship between means and end, that is, between the using up of factors of production and the expected product yielded by the production process, is observed. This is where the entrepreneur's judgment of values becomes important. But it should be noted that this judgment is confined strictly to the relationship arising within a particular production process and does not extend to consideration of economic relations beyond this process, not to speak of relations that are ultimately determined by changes in the social structure. Moreover Say does not discuss the entrepreneurial function in a dynamic environment, but in purely stationary equilibrium which is characterized by the equality of prices of products with their costs of production. In particular, he sees no relationship between entrepreneurial activity and capital accumulation or investment.⁵⁶ Thus in the last resort his theory of entrepreneurship is in full contrast to that of Schumpeter who maintains that in equilibrium entrepreneurial profits are necessarily zero and who thus finds a place for the exercise of entrepreneurial functions only in a dynamic process. In other words, whereas for Schumpeter the characteristic of entrepreneurial activity is the introduction of innovations, for Say it is the organization and combination of productive factors for a given task. At the same time Say has stressed explicitly the notion, which we found to have already been present in Physiocratic thought, that the entrepreneur is the central figure in the economy. He is the universal mediator. He mediates between landlord and capitalist, between scientist and manual laborer, between various suppliers of productive services among one another, and between producers and consumers. If seen in this light, Say's theory of entrepreneur-

ship is not only fundamentally different from the later theory of entrepreneurship but also from the earlier ones of Cantillon, Baudeau and Turgot.

However, we must still consider one additional point. In one place in the *Cours* Say extends his description of entrepreneur from one who merely combines factors for the production of a good that has value, to that of a person who works on his own account. His argument runs/as follows: in a market economy the entrepreneur acquires productive services by purchase or hire. To the extent to which he has contracted for them he either acquires property rights in them or obtains them under conditions where he is able to dispose of them freely and at his will. (*Cours*, vol. I, p. 510). Hence he uses them in his own productive activities and becomes the owner of the finished products. Production is therefore carried through on the account of and at the risks of the entrepreneur. (*Cours*, vol. II, p. 34). The sentence, "Il n'est pas moins entrepreneur puisqu'il produit pour son compte, et que son profit dépend de la valeur du produit qui résulte de ses soins," (*ibid.*) thus is the core of a second view of entrepreneurship on the part of Say.

No one has expressed the view more firmly and consistently that economists must base its generalizations on empirical evidence rather than on abstract axioms than Say. His chief objection to the Physiocrats was that he considered them to start from such abstract axioms rather than from careful investigation of the real world around them.⁵⁷ It might, therefore, be said that Say's double characterization of entrepreneurship is an outflow of his empirical method. It would be easy to show that the entrepreneur of the early nineteenth century engaged in the organisatory activity which Say attributes to him and that he usually was a man who ran a business on his own account. This would, however, be irrelevant for the evaluation of Say's theory of entrepreneurship, because we are not concerned with how entrepreneurs actually behaved, but which aspects of their behavior Say selected for his theory.

We are here confronted with a problem of scientific method which is crucial for any empirical science, and for empirical social science, in particular. The actual behavior patterns of entrepreneurs, their motives and objectives may display a considerable degree of variation, both as between persons or industries, as well as between countries and geographical areas. The task of developing a theory of entrepreneurship consists in selecting those aspects of entrepreneurial behavior which are most significant and in determining the degree of generality with which they are found. In other words out of the manifold and different acts which entrepreneurs have performed or may be expected to perform one has to eliminate all those which are "accidental" or which are the result of special circumstances of the person, the time, the locality, the industry, or other factors. Those acts which are left constitute then the most typical forms of entrepreneurial behavior and we can then indicate how commonly they are found. This procedure results not only in an entrepreneurial theory, but indicates at the same time whether, and to what extent entrepreneurial activity is dependent upon certain institutional relations. Say has quite properly carried through such

an analysis, and has come to the result that the most significant aspect of the entrepreneur is his position as mediator or co-ordinator in production, and that the entrepreneurial function so defined is found in all situations in which men have to meet potentially unlimited needs with scarce means, in other words, in all situations in which economic activity, a choice between the alternative use of productive resources, must be exercised. We have seen earlier that Say explicitly states that entrepreneurial activity of this kind is found also in savage society, and, by logical extension, it is part of the daily labor of Robinson Crusoe.⁵⁸

If this is recognized then the fact that the entrepreneur produces for his own account is not part of the general theory of entrepreneurship, but is an observation of a peculiar historical relationship, which was quite common in the period in which Say wrote, but which had been absent in earlier periods, and which tended to disappear later with the growth of corporate enterprise. Say's entrepreneur — and this is also a point of difference between him and Schumpeter on the one hand, and Cantillon and the Physiocrats and the other — is not confined to a capitalist society. He appears wherever production is carried on, where this production results in the creation of values, and where not all the goods and services used in production are free goods.⁵⁹

We thus come to the conclusion that Say has two theories of entrepreneurship. One is general and independent of a particular social framework. The second is the theory of the capitalist entrepreneur, not in the sense which Turgot gave to the phrase, but of an entrepreneur in a competitive capitalist society where the individually owned firm predominates. This entrepreneur is not only characterized by being the organizer and planner of production, but he also carried on this activity on his own account.⁶⁰ As a consequence he may be bearing certain risks, or, in other words his income may be uncertain. His income is thus determined by two factors. The first is the price established by the forces of supply and of demand for any particular kind of entrepreneurial labor. Thus Say arrives at stipulating a gradation of entrepreneurial labor depending upon the scarcity of the capacities and knowledge required in each class of entrepreneurial activity. This was already referred to earlier in note 56. Say lists in his *Cours* (Vol. II, pp. 35-38) the major causes which determine the supply of entrepreneurial labor. They are (1) the necessity of having the moral qualifications which this kind of work requires, (2) the necessity of attaching to the enterprise a sufficient capital, and (3) the uncertainty of whether and what profits will be made. Only men who have the necessary moral qualifications, who can either supply their own capital, or induce others to provide them with it in sufficient magnitude and who are willing to bear the risks involved can become entrepreneurs; and depending upon the magnitude of the capital or risks involved and the complexity of the business the supply of entrepreneurial labor will vary. In the ordinary one-family-farm little capital is involved, risks are not great, and the only "moral qualifications" needed are that common amount of judgment which Say thinks is found quite frequently. It is different with men who operate institutions of high finance or big

commercial enterprises. The primary source of entrepreneurial income even under this system is not profit as a premium for risk, but a wage as compensation for a highly skilled type of labor, which is scarce. (*Cours*, Vol. II, p. 38-39).

Only as a second consideration does Say acknowledge that entrepreneurial income may be derived from the exploitation of an innovation. This is at least implicit in Say's discussion of the introduction of a new product or the establishment of a new firm, and in his advice that a good entrepreneur must follow, and, if possible, precede his competitors in the application of new methods. (*Cours*, Vol. I, pp. 298-301). Pursuing his thought along these lines Say finally arrives at stipulating the necessary qualifications for the entrepreneur. He lists among others a "judicious courage which can envisage all manner of risks and an imperturbable *sang-froid* which permits one to choose all means of escaping them." (*Ibid.*, p. 303.) Thus the entrepreneur turns out to be the hardy and courageous innovator who plants his standard in new and unknown country.

It should be noted that these considerations are not part of Say's theory of entrepreneurship but descriptions of the socio-psychological and institutional framework determining the exercise of entrepreneurial activity in a system of competitive free enterprise capitalism. Although Say arrives at a stipulating special qualification for the entrepreneur, his theoretical scheme envisages entrepreneurial activity as an economic function and not as a social role performed by a particular class of men. From the point of view of economic theory his views of entrepreneurship constitute an important advance since they neatly distinguish the contribution to production made by personal services of businessmen as distinct from services of nonhuman agents of production owned or controlled by them. But although Say himself did not always fully satisfy his own rigorous demand that theoretical economic matters should be kept strictly apart from the wider social problems with which they are associated, his emphasis on the former induced him to develop a theory of entrepreneurship which is singularly barren for the explanation of the entrepreneurial function in a dynamic capitalist society. In this sense his work is a step backward from the insights gained by the Physiocrats. Only after it had been shown by Schumpeter that the entrepreneur was not the guardian of economic equilibrium but the disturber of equilibrium was a new and fruitful development of entrepreneurial theory possible.

NOTES

1. Henri Hauser, *Les débuts du capitalisme*, p. 309.
2. Compare Charles Gide & Charles Rist, *Histoire des doctrines économiques*, 2nd ed. (Paris, 1913), p. 132 with 7th ed. (Paris, 1947), p. 123.
3. See Henry Higgs, *The Physiocrats*, (London, 1897) p. 31, note 1.
4. See Fritz Redlich, "On the Origin of the Concepts of 'Entrepreneur' and

7. Littré, *op. cit.*, p. 1437, and Frédéric Codelroy, *Dictionnaire de l'ancien langage français*, (Paris, 1884), vol. III, p. 297.

8. See the large number of quotations from sixteenth century literature in Edmond Hugnet, *Dictionnaire de la langue française du seizième siècle*, (Paris, 1946), vol. III, p. 531. See also Littré, *op. cit.*, vol. II, p. 1437.

9. Antoine Furetière, *Dictionnaire universel*, (The Hague, 1690), Vol. I, p. 951.

10. *Le Dictionnaire de l'Académie Française*, [First edition, (Paris, 1694), Vol. II, p. 314. It is interesting to note that this definition, although enlarged, never entirely disappears from the dictionary and that even the 6th (1835), 7th (1878), and 8th (1932) editions do not contain a definition of the word *entrepreneur* corresponding to its technical meaning in economics.

11. Cf. F. A. Isambert et al., (ed.), *Recueil général des anciennes lois françaises*, (Paris, 1829), Vol. XV, pp. 217 and 315-392.

12. A number of Arrêts du Conseil d'Etat and Ordonnances exhibiting this terminology and dating from 1667, 1669, 1670, 1672, 1685, 1700, and 1706 are reprinted in P. Gallotti, *L'entrepreneur d'avant les dies*, (Paris, 1921), pp. 415-418, and 428-433.

13. Antoine de Montchretien, *Traicté de l'économie politique*, (ed. by Th. Funck-Brentano) (Paris, n.d. [1924]), p. 297. It is perhaps not without interest to note that similar enterprises by Englishmen were called "projects" and their leaders "projectors" as is evidenced, for example, in a passage in Robert Beverly, *The History and Present State of Virginia*, first published in London, 1705, reprinted under the editing of Louis B. Wright, Chapel Hill, 1947, p. 23. Here Sir Walter Raleigh is called "the great Projector and furtherer of these Discoveries and Settlements". As will be shown later, the term projector had an invidious flavor and was applied to either fraudulent or highly speculative entrepreneurs. This attests the risky nature of the early colonization schemes.

14. See E. Viollet-le-Duc, *Dictionnaire raisonné de l'architecture française du XI^e au XVI^e siècle*, (Paris, 1875), Vol. I, pp. 107-116.

15. On the construction of French canals see A. Debaure, *Les travaux publics depuis le XVII^e siècle*, (Paris, 1893) pp. 173-191; on the drainage of fens see Margaret James, *Social Problems and Policy During the Puritan Revolution: 1640-1660* (London, 1930) pp. 125-128; on the building of Blenheim see Bonamy Dobrée, *Essays in Biography: 1680-1726* (London, 1925) pp. 99-128.

16. Gallotti, *op. cit.*, pp. 25-26.

17. See, among numerous instances, the very clear example given by Say when he says, in talking of an agricultural entre-

preneur: "il a dû se livrer à quelques combinaisons pour réunir les moyens nécessaires pour obtenir un produit quelconque; il y a dû mettre en balance ce que ces moyens lui coûteraient, avec l'avantage qu'il retirerait du produit. Il a dû s'instruire des procédés d'agriculture au moyen desquels on le fait arriver à bien; et enfin il a fallu qu'il s'occupât de l'exécution de ces procédés." *Cours complet d'économie politique pratique*, (Paris, 1840), Vol. I, pp. 97-98. On Say's general theory of entrepreneurship see below, Part IV of this essay.

18. For this and the preceding three paragraphs see [Bernard F. del Bellio, *La science des ingénieurs dans la conduite des travaux de fortification et d'architecture civile* (Paris, 1759), book VII, pp. 46-50. See also the discussion of the same problem in book III, pp. 29-31.

19. Samuel Johnson, *A Dictionary of the English Language*, (London, printed by W. Strahan, 1755), Vol. I, sub "Advertiser".

20. See Jean-Baptiste Say, *A Treatise on Political Economy*, transl. by C. R. Prinsep, M. A. (Philadelphia, 1827), p. 18 note. John Shart Mill, when confronted with the same problem, uses the word "undertaker", but he adds in a footnote: "It is to be regretted that this word, in this sense, is not familiar to an English ear. French political economists employ a great advantage in being able to speak currently of *les profits de l'entrepreneur*" (*Principles of Political Economy*, ed. by Sir W. J. Ashley, (London, 1909), p. 406).

21. Robert Payne, *A Brief description of Ireland*, ed. by Aquila Smith, reprinted in Irish Archaeological Society, *Tracts Relating to Ireland*, (Dublin, 1841) Vol. I, pp. 7-8.

22. Fynes Morison, *An Itinerary Comprising His Ten Yeeres Travell*, etc. (first published 1602, reprinted Glasgow, 1907), Vol. II, p. 219.

23. *Ibid.*, Vol. III, p. 219.

24. See the letter by Sir T. Edmondson to Sir D. Carleton, of September 16, 1612, reprinted in Historical Manuscripts Commission, *Tenth Report*, App. I (Manuscript of the Earl of Eglinton, . . . and G. Wingfield Digby, Esq.), (London, 1885) p. 604.

25. William Dugdale, *The History of Imbanking and Draining of divers Fens and Marshes, etc.* (first published 1669, reprinted London, 1772) p. 406. This book abounds in references to the operations of "undertakers" in draining and land reclamations in the seventeenth century. See also the petition of the inhabitants of East Holland and Sibsey of December 11, 1640, requesting that they be indemnified against the damage they suffered since "this Sir Anthony Shomard, pretending the fens were hurtfully surrounded about 10 years since, procured himself to be chief undertaker for draining the drowned grounds in those parts." *Calendar of State Papers, Domestic Series, 1640-41*, (London, 1882) Vol. 17, p. 308.

26. [Stephen] [Plimath], *The City and Country Purchaser and Builder*, (second ed. by William Leybourne, London, 1680) pp. 30-31.

27. As late as 1755, Dr. Johnson gives as a definition of *Undertaker* "one who engages in projects and affairs" and as one of *projector* "one who performs schemes or designs." Although for both words additional, more special meanings are given, the two definitions just quoted show the closeness of the two concepts. See Samuel Johnson, *op. cit.*, Vol. II, sub-*Projector* and "undertaker," *Records of the Borough of Nottingham* (London, 1900), Vol. 5, p. 144.

28. W. T. Baker, ed., *Records of the Borough of Nottingham* (London, 1900), Vol. 5, p. 144.

29. Historical Manuscripts Commission, *Fifteenth Report*, App. IV (Manuscripts of the Duke of Portland), (London, 1897) p. 31.

30. *The London Gazette*, No. 4651 of February 9—February 11, 1709, col. 2 of p. 1.

31. See *The Wealth of Nations*, ed. by Edwin Cannan (New York: Modern Library, 1937) p. 438.

32. See Malachy Postlethwayt, *The Universal Dictionary of Trade and Commerce*, (Second ed. London, 1757) Vol. I, p. 498 (Article CIRCULATION). This article is virtually a translation of chapter XIII of book I of Cantillon's *Essai*. See on this point Edwin Cannan's "Communication," *Economic Journal*, VI (1896), p. 165.

33. See on this point the interesting researches by Henry Higgs, "Richard Cantillon," *Economic Journal*, I (1891), p. 266.

34. See François Quesnay, *Oeuvres économiques et philosophiques*, (ed. by Auguste Nonken, Frankfurt & Paris, 1888), pp. 218-219.

35. The actual term "*avances foncières*" is, I believe, not used by Quesnay, but stems from Baudouin (cf. his *Première introduction à la philosophie économique*, (ed. by A. Dubois, Paris, 1910) p. 12). Quesnay himself speaks of "*dépenses foncières*" (*op. cit.*, p. 471) and explains them as the "premières avances pour metre leurs [the proprietors'] terres en état de être cultivées" (*ibid.*, p. 529). It is interesting to note that both these passages occur in articles contributed in 1766 to the *Journal de l'Agriculture* which at that time was the "house organ" of the Physiocrats, and that the notion of *avances foncières* had not been developed when Quesnay devised the *Tableau économique*. The notion of the *avances foncières* appears to be an afterthought rounding out the logic of the system and providing at the same time a reason for the rent income, as based on the contribution of a productive service. The matter has been taken up in an extended form by Baudouin in the work cited earlier, which appeared first in 1767. Baudouin also makes the additional distinction between

avances foncières and *avances souveraines* (*op. cit.*, p. 12), the latter consisting in the development of roads, canals, and other utilities, as well as the administration of law which makes property secure. In this extended system every claim to income (or revenue) is thus justified by the contribution of some productive service; here an apotheosis of rational capitalist calculation is at the basis of a treatise on economic principles.

36. See Quesnay, *op. cit.*, p. 316.

37. *Ibid.*, p. 234.

38. This letter is reprinted in Othmar Thiele, "Französisches Quesnay und die Agrarkrise im Ancien Régime," *Veröffentlichungen für Sozial- und Wirtschaftsgeschichte*, IV (1906), pp. 644-52. The quoted passage is on p. 646.

39. D'Alembert and Diderot, eds., *Encyclopédie*, (Paris, 1755), Vol. V, p. 732.

40. See F. Brunot, *Histoire de la Langue française des origines à 1900*, (Paris, 1905), Vol. VI, I, partie, pp. 386-7.

41. See Quesnay's letter to the Intendant of Soissons, in Thiele, *op. cit.*, p. 647. Mercier de la Rivière moreover shows that if free competition prevails in the market for leases on farms uniform rents for land of homogeneous quality will be established and the rents form then a cost factor for the tenant operator. *L'ordre naturel et essentiel des sociétés politiques* in E. Daire, ed., *Physiocrates*, (Paris, 1846) p. 460.

42. Nicholas Baudouin, *op. cit.*, p. 48.

43. *Ibid.*, p. 46.

44. *Ibid.*, p. 51.

45. On the many proposals by the Physiocrats toward the introduction of innovations of all sorts into agriculture, see Georges Welleuse, *Le mouvement physiocratique en France*, (Paris, 1910) Vol. I, pp. 374-378. As an example of the fact that the Physiocrats were ready to practice what they preached may serve the establishment by the marquis de Mirabeau of a technically advanced flour mill and bakery which enabled him to produce bread more cheaply than was possible with traditional methods. See Louis de Lomenie, *Les Mirabeau*, (Paris, 1889) Vol. II, pp. 276-278.

46. See Anne Robert Jacques Turgot, *Réflexions sur la formation et la distribution des richesses*, in Gustave Schelle, ed., *Oeuvres de Turgot*, (Paris, 1913-23) Vol. II, pp. 569-570.

47. See *ibid.*, pp. 572, 569, 570. There exist two English translations of Turgot's *Réflexions*, one by an anonymous author, first published in 1793 and later incorporated in J. R. McCulloch, *A Select Collection of Scarce and Valuable Economical Tracts*, (London, 1859); the other by Sir W. J. Ashley, published under the title *Reflections on the Formation and the Distribution of Riches*, (New York, 1898). In both translations Turgot's "entrepreneur capitalist" is rendered by "capitalist

"undertaker", a fact which does not surprise us with regard to the anonymous writer of 1793, but which seems a somewhat stilted antiquarianism in the translation of Professor Ashley. Certainly by 1898 the word *undertaker* had been superseded in English economic language by the word *entrepreneur*.

Another curious circumstance relating to Turgot's treatment of capitalist entrepreneur is the fact that it has been completely ignored. This is particularly surprising of Gide and Rist, who have not failed to point out other divergences between Turgot and the more orthodox members of the "Physiocrat sect." Certainly Turgot was considered important enough to be studied carefully and, for a short period, the claim was not uncommon in France that he was the true founder of modern economics rather than Adam Smith. As concerns his theory of entrepreneurship, he is clearly superior to Smith, and yet this fact seems not to have been noted heretofore.

48. On the technological superiority of British to French agriculture at the time, see Arthur Young, *Poetical Arithmetic*, (London, 1774), pp. 158-166.

49. See Chaput de Chanteloup, *De l'industrie française*, (Paris, 1819) Vol. II, pp. 112-113 and ff.

50. On the details of Say's biography see Ernest Teilhaac, *L'oeuvre économique de Jean-Baptiste Say* (Paris, 1927) esp. pp. 24-26. Teilhaac also notes that the second edition of the *Traité*, published in 1814, seems to show the influence of Say's experiences at Aulnay and he singles out as evidence for this Say's notion of the entrepreneur, among other things. See *ibid.*, p. 29.

51. This correspondence has been reprinted in *Oeuvres diverses de J. B. Say* (ed. by Ch. Comte, E. Daire, & Horace Say, Paris, 1848) pp. 361-397.

52. See the following references to German Garnier in Say's major works: *Traité d'économie politique* (6th ed., Paris 1841) pp. 245, 257, 288, 334, 338; *Cours complet d'économie politique pratique* (2nd ed., Paris, 1840) vol. I, pp. 214, 424, 534; vol. II, pp. 428, 558. See especially the footnote on p. 214 of volume I of the *Cours* for Say's general evaluation of Garnier's work and the aspects of it which he regarded as important. (All citations hereinafter will be to these editions of the two works.) On the social background of the opposition between Garnier and Say, see the stimulating essay by E. Allix, "La rivalité entre la propriété foncière et la fortune mobilière sous la Révolution," *Revue d'histoire économique et sociale*, VI (1913) pp. 297-348, esp. 336-346.

53. Richard Cantillon, *Essai sur la nature du commerce en général*, (ed. with an English translation by Henry Higgs, London, 1931) p. 55.

54. See Say, *Traité*, pp. 24-25, and

esp. on Turgot's *Réflexions*, p. 34, note 1.

55. It should be noted that the Physiocrats were, of course, aware that one and the same person could be proprietor, farmer, and agricultural laborer. But they regarded such a state of affairs as an indication of stagnation and decline, or of barbarism. (See, for example, Baudouin, *op. cit.*, pp. 45-46). Say, on the contrary, stipulates that the entrepreneurial function is found in any culture in which production is carried on, regardless of the structure of that society. (*Cours*, vol. I, pp. 98-99).

56. See, for example, *Traité*, p. 323. Say's fundamentally static view of entrepreneurial income is perhaps nowhere better exhibited than in a passage in his *Traité*, pp. 370-371, where he discusses the causes for differences in the profits in different industries. He says there: "All kinds of industry do not require the same amount of skill and knowledge on the part of the entrepreneur. A farmer, who is an agricultural entrepreneur, need not know so many things as a merchant who trades with faraway countries. . . . If the knowledge which makes a good farmer is good common than that which makes a good merchant, need we be surprised if the labor of the first receives a lower pay than that of the second?"

57. See, for example, *Cours*, vol. II, p. 556; *Traité*, p. 24; and especially Say's letter to Dupont de Nemours of November 15, 1815, in *Oeuvres diverses de J. B. Say*, pp. 389 ff.

58. See note 55 above.

59. That this was Say's own view of the essential nature of his concept of entrepreneur—and that such factors as risk bearing and production on his own account were not considered essential elements of the concept—is attested by his *Epitome des principes fondamentaux de l'économie politique*, a list of definitions appended to the later editions of the *Traité*. Since this is a very condensed statement, I take the liberty to quote the essential parts: "Les entrepreneurs" concourent à la production en appliquant les connaissances acquises, le service des capitaux et celui des agents naturels, à la confection des produits auxquels les hommes attachent une valeur. . . . Ce qui fait la difficulté de la tâche de l'entrepreneur, c'est de créer des produits qui valent autant ou plus que leurs frais de production. . . . Si les produits valent plus que les frais de production, c'est un surcroît de profit pour l'entrepreneur, surcroît qui lui est ordinairement enlevé par la concurrence." *Traité*, pp. 579-580.

60. As soon as he has reached this insight Say comes to agree with Cantillon that "un peintre, un statuaire du premier ordre. . . peuvent être considérés comme entrepreneurs, puisqu'ils agissent pour leur propre compte." *Cours*, Vol. II, p. 40.