

## THE ENTREPRENEUR: REAL AND IMAGINED\*

Joseph T. Salerno  
Lubin School of Business  
Pace University  
1 Pace Plaza  
New York, NY 10038  
[jsalerno@pace.edu](mailto:jsalerno@pace.edu)

Presented at  
Austrian Scholars Conference  
Auburn, AL  
March 15-17, 2007

\*Please do not quote without permission of the author.

The managerial function . . . can never evolve into a substitute for entrepreneurship. The fallacy to the contrary is due to the error confusing the category of entrepreneurship as it is defined in the imaginary construction of functional distribution with conditions in a living and operating market economy. The function of the entrepreneur cannot be separated from the direction of the employment of factors of production for the accomplishment of definite tasks. The entrepreneur controls the factors of production; it is this control that brings him either entrepreneurial profit or loss. (Ludwig von Mises 1998, p. 302)

Mr. Keynes obviously arrives at this view by an artificial separation of the function of the entrepreneurs as owners of capital and their function as entrepreneurs in the narrow sense. But these two functions cannot be absolutely separated even in theory, because the essential function of the entrepreneurs, that of assuming risks, necessarily implies the ownership of capital. Moreover, *any new chance to make entrepreneurs' profits is identical with a change in the opportunities to invest capital, and will always be reflected in the earnings (and value) of capital invested* [emphasis in the original]. (F. A. Hayek 1931, p. 277)

It is clear, therefore, that the process of equalization of rate of return throughout the economy, one that results in a uniform rate of interest, *is the very same process that brings about the abolition of profits and losses in the ERE. . . .* [I]f the . . . entrepreneur owns no assets, then how in the world does he earn profits? Profits, after all, are simply the other side of the coin of an increase in the value of one's capital; losses are the reflection of a loss in capital assets [emphasis in the original]. (Murray N. Rothbard 2004, pp. 513-14 and 1997,2:247)

## 1. INTRODUCTION

Ludwig von Mises, Friedrich Hayek and Murray Rothbard were the main architects of the distinctly Austrian theory of production as it exists today. The quotes above indicate that all three conceived the entrepreneurial function in the actual market economy as presupposing the ownership of property, specifically capital. And yet, many, and possibly most, contemporary Austrian economists conceive the entrepreneur as a pure decision-maker possessing superior “alertness” but owning no resources. This pure entrepreneur earns profits by “discovering” and seizing objectively existing but previously unperceived opportunities to arbitrage price discrepancies between a bundle of complementary inputs and the output it yields. That this is the essence of “the” Austrian theory of the entrepreneur and profit is accepted as a matter of course by those among the broader economics profession who are sympathetic to the Austrian theoretical approach.

It is not the intent of this paper to dispute over what constitutes “the” Austrian theory of entrepreneurship; nor is it to present a full-blown alternative theory of the entrepreneur. Rather its goal is the more modest one of demonstrating that there is in the Austrian tradition traceable back to Menger, a very definite and prominent strand of thought that conceives property ownership as central to the tasks that the entrepreneur characteristically performs in the real-world market economy.

Section 2 of the paper addresses the question of how the notion of the propertyless pure entrepreneur, as formulated in the works of Israel Kirzner, came to play a central role in Austrian economic theory during the last quarter of the twentieth century. In Section 3 it is argued that when Kirzner’s mentor, Ludwig von Mises, first introduced the

rigorous conceptualization of the pure entrepreneur he did so with the sole purpose of analytically isolating and identifying the functional sources of the various factor incomes in the market economy. Mises explicitly warned against the dire consequences of confusing what he called the “methodological makeshift” or “imaginary construction” of the pure entrepreneur with the richer conception of what he called the “promoter entrepreneur,” formulated to capture the fullness of entrepreneurial action in the real market process. This latter concept, which has been re-dubbed the “integral entrepreneur” for the purposes of this paper, is delineated and contrasted with the Kirznerian pure entrepreneur in section 4. Finally, section 5 surveys the Austrian tradition from Menger through Mises and Rothbard with respect to the evolving view of the entrepreneur’s function as a property owner and the specific productivity and income attributable to this function. The highlight of this section is the identification of a third form of income, analytically separable from pure profit and pure interest, earned by real-world entrepreneurs

## 2. THE PURE ENTREPRENEUR: WHENCE HE CAME

As noted, the conception of the entrepreneur as a pure decision-maker and arbitrageur who owns no property was originated by Israel M. Kirzner. In his classic work, *Competition and Entrepreneurship*, Kirzner (1973, p. 47) emphasized that the “pure entrepreneur” was a non-owner, writing:

An important point . . . is that ownership and entrepreneurship are to be viewed as completely separate functions. Once we have adopted the convention of concentrating all elements of entrepreneurship into the hands of pure entrepreneurs, we have automatically excluded the asset owner from an

entrepreneurial role. Purely entrepreneurial decisions are by definition reserved to decision-makers who own nothing at all.

Upon publication, Kirzner's book was very favorably reviewed by three leading Misesian economists, Percy Greaves (1974), Henry Hazlitt (1974) and Murray Rothbard (1974). Despite the high praise they lavished on his work, particularly for its devastating critique of mainstream or "orthodox" microeconomics and its almost exclusive focus on competition as an equilibrium state, all three reviewers explicitly challenged Kirzner's attempt to divorce the pure entrepreneur from the ownership and, perforce, the active allocation of resources.

Greaves (1974, p. 18) found it "difficult to see how an entrepreneur can make and carry out decisions without owning, i.e., controlling, what is done with the resources involved." Hazlitt (1974 p, 758) questioned Kirzner's claims that the pure entrepreneur can be "a decision-maker who starts out *without any means whatsoever*" and that "purely entrepreneurial activity involves no element of resource ownership." (The quoted passages as well as the emphasis are Kirzner's.) Hazlitt (1974, p. 759) noted that someone taking risks using other people's capital "is merely a hired manager." It is not enough for an entrepreneur to be alert and perceive opportunities, argued Hazlitt, "he must *act* on his alertness and perception." Thus Hazlitt concluded that the entrepreneur "must be a capitalist plus," or "a capitalist willing to take unusual risks."

In his review in the *Journal of Economic Literature*, Rothbard (1974, p.903) described "[Kirzner's] valuable work" as "permeated by a basic error." This error, according to Rothbard, was the "un-Austrian," neo-classical view of the entrepreneur as a non-owning, almost ethereal being, who owns no capital and only operates by the pure

force of his ideas and alertness.” Kirzner’s conception of the entrepreneur represented for Rothbard an unfortunate departure “from the basic Austrian insight that the entrepreneur and the capitalist are one and the same.”

Unfortunately, this provocative critique of the essential nature of Kirzner’s pure entrepreneur advanced independently by three prominent fellow Austrians and Misesians did not generate what would have been, in retrospect, a very fruitful debate. Instead, their critique was shunted aside by another controversy that was soon aroused by Kirzner’s book. This debate was initiated by younger Austrians, mainly graduate students and junior academics, who were acolytes of Ludwig Lachmann. It revolved around the much broader and murkier question of whether the market process was inherently equilibrating, as Kirzner had claimed, or whether its operation could at times veer off in a disequilibrating direction, which was Lachmann’s position.<sup>1</sup> Although this dispute yielded some interesting insights, it generated much more heat than light and never reached a clear resolution.<sup>2</sup> More significantly, it absorbed the intellectual effort and shaped the research agenda of both Kirzner and the leading younger minds of the burgeoning Austrian movement from the late 1970’s through the mid-1980’s.<sup>3</sup> Perhaps most importantly, it diverted attention away from the much more fundamental question posed initially by Greaves, Hazlitt and Rothbard concerning the precise nature of the entrepreneur in economic theory.

---

<sup>1</sup> Ironically, Kirzner (1976) and Lachmann (1976) staked out their diametrically opposed positions in juxtaposed chapters of a book entitled *The Foundations of Modern Austrian Economics*.

<sup>2</sup> George Selgin (1990, p. 5) declared that his own contribution “was composed in response to a seemingly indeterminable debate” wherein “Ludwig von Mises’s own epistemological views were being inadequately appreciated on both sides.”

<sup>3</sup> See for example O’Driscoll 1977; O’Driscoll and Rizzo, 1985, pp. 71-91; White 1976; White 1979a; White 1979b; White 1982; Lachmann 1979; Littlechild 1982. A most enlightening contribution to this debate is Selgin 1987.

There were a few probing articles written in the 1980's, notably by Jack High (1982) and by Rothbard (1985), that pointedly challenged the meaningfulness of the Kirznerian entrepreneur but they were also ignored.<sup>4</sup> By the time of their publication, Kirzner's propertyless, pure entrepreneur was ensconced at the heart of Austrian economic theory, especially as that theory was understood by mainstream economists sympathetic to Austrian economics.

### 3. THE PURE ENTREPRENEUR: AN IMAGINARY CONSTRUCTION

In discussing the inspiration for his formulation of the pure entrepreneur, Kirzner (1973, pp. 84-85) graciously attributed to Mises's writings "most of the ideas" from which he had developed his own "discussion of the entrepreneurial role." And it is Mises's insights into the character of the market process that laid the ground work for the construction of this theory of entrepreneurship." In his original review of *Competition and Entrepreneurship* and in his later article on Kirzner's theory of entrepreneurship, Rothbard expressed partial agreement with Kirzner's identification of Mises as the source of the notion of a purely non-owning entrepreneur. In the later piece, Rothbard (1997, p. 249) made this point with great emphasis:

[T]here is an uncharacteristic lack of clarity in Mises's discussion of entrepreneurship. While Mises basically links the capitalist and the entrepreneur together in uncertainty-bearing, there are passages in his *Human Action* which treat the entrepreneur as an entirely separate entity, and not just as the forecasting

---

<sup>4</sup> Kirzner (1985, pp. 44-45) did attempt to address Hazlitt's, Rothbard's and High's strictures against his notion of the entrepreneur, but did so in a manner that suggested he understood their main point to revolve around the fact that the pure entrepreneur did not incur the incidence of uncertainty and losses. In fact, as High (1982, p. 166) had perceptively noted, the more fundamental point involves ownership: "If entrepreneurship is completely separate from ownership, is it meaningful to speak of entrepreneurial loss? Can losses fall on the entrepreneur or must they fall on the resource owner."

aspect of the activities of the capitalist or laborer. In other words there is a certain amount of textual justification in Mises for the Kirzner turn . . . .

While Rothbard was certainly correct in recognizing two radically different entities bearing the name “entrepreneur” in *Human Action*, it apparently escaped his attention that Mises explicitly characterized the first as “the imaginary construction of the pure entrepreneur.” It was this fictitious construct, and not Mises’s second and very different concept of the “promoter-entrepreneur” who owned capital, created firms and allocated resources in real markets that served as the model for Kirzner’s pure entrepreneur.

Let us first examine Mises’s rationale in resorting to this analytical contrivance and the specific use he made of it. Mises (1998, pp. 252-56) first introduces the pure entrepreneur in a section entitled “The Integration of Catallactic Functions.” Mises’s purpose in this section is to elaborate what he calls “the imaginary construction of functional distribution.” The aim of this construction is to isolate each of the productive functions in the market economy and to integrate each one in a single, imaginary figure who receives his income exclusively from that function. Thus the laborer earns wages from disposing of the human factor of labor services; the capitalist and landowner earn a pure interest return from refraining from present consumption by committing capital and land resources to the production process in advance of the sale of the product on the market; the entrepreneur in this schema earns profits or suffers losses strictly as a result of his relative success in anticipating changes in the market data.

Analyzing this imaginary schema of functional distribution enables the economist to elaborate the principles of factor pricing and of the nature and source of profit and loss.

These principles are then applied to explaining the historical or “personal” distribution of income among real market participants. Actual persons operating in the market economy typically perform more than one productive function. In particular, all choices by actual resource owners, including laborers, are directed toward an uncertain future and are therefore necessarily speculative and entrepreneurial, thereby intermingling with every actual factor return an element of profit or loss. Even consumers bear uncertainty in endeavoring to provide for anticipated future wants. Thus, as Mises (1998, pp. 253-54) pointed out, embodying the function of uncertainty-bearing in an “imaginary figure” such as the pure entrepreneur is a “methodological makeshift.” It is a mental tool necessary to enable the economist to analytically isolate the source of profit and loss.

Mises demonstrated that once the concept of a propertyless pure entrepreneur is pushed beyond its specific use in the imaginary construct of functional distribution, it collapses into logical contradiction. In illustrating this, Mises assumed that the pure entrepreneur receives all his capital from capitalists in the form of money loans that he then invests in his project. According to Mises (1998, p. 254), in this instance, the entrepreneur nevertheless

. . . remains propertyless for the amount of his assets is balanced by his liabilities. If he succeeds the net profit is his. If he fails the loss must fall upon the capitalists, who have lent him the funds. Such an entrepreneur would, in fact, be an employee of the capitalists who speculates on their account and takes a 100 per cent share in the net profits without being concerned about the losses. But even if the entrepreneur is in a position to provide himself a part of the capital required and borrows only the rest, things are essentially not different. To the extent that

the losses incurred cannot be borne out of the entrepreneur's own funds, they will fall upon the lending capitalists, whatever the terms of the contract may be. A capitalist is always virtually an entrepreneur and speculator.

Thus, only property owners can bear the burden of uncertainty, and all property ownership entails exposure to uncertainty. *A fortiori*, the entrepreneur *qua* uncertainty bearer must be a property owner; a pure entrepreneur is a contradiction in terms.

In addition, Mises (1998, p. 255) noted, economics “always did and still does use the term ‘entrepreneur’ in a sense other than that attached to it in the imaginary construction of functional distribution.” In this second sense, the term applies to those who do not merely passively *bear* the consequences of uncertainty inherent in action but deliberately and actively *seize* the opportunity that change and uncertainty present to earn their livelihood. Mises characterized entrepreneurs in this second sense as “those who are especially eager to profit from adjusting production to the expected changes in conditions, those who have more initiative, more venturesomeness, and a quicker eye than the crowd, the pushing and promoting pioneers of economic improvement.” Mises (1998, p. 255) conceded that using the same term to denote these two different concepts was “awkward” and he suggested that the term “promoter” would have been more expedient in identifying second conception of the entrepreneur. Nonetheless, Mises acquiesced in the “equivocal use” of the term “entrepreneur” because he believed that it would create no “ambiguity” in the elaboration of economic theory.

In fact, Mises was wrong and it now has become clear that the dual meaning assigned to the term entrepreneur has caused considerable confusion in modern economic theory. The term “promoter” suggested by Mises, whatever its purely rhetorical merits, is

unsuitable because it is now most commonly applied to someone who specifically arranges financing for individual events such as boxing matches, theatrical productions and rock concerts. The term “pure entrepreneur,” however, is now current in Austrian economics and is generally understood to refer to an unrealizable mental image that has been stripped of all capitalistic and ownership functions for a specific analytical purpose. The pure entrepreneur may thus be beneficially contrasted with the praxeologically complete or “integral” entrepreneur, who integrates the praxeologically indivisible roles of uncertainty bearer, capital investor and property owner. Thus the integral entrepreneur actively assumes risk by investing capital in purchasing productive factors at their current prices and then overseeing and directing the resultant investment project or “firm” until its product comes to fruition after a lapse of time. The product is finally sold on the market at a price that was anticipated to exceed the sum of the input prices.

#### 4. THE INTEGRAL ENTREPRENEUR: A LEADER AMONG MEN

Before discussing the characteristics and income of the integral entrepreneur in greater depth, a few preliminary points need to be made. First, in contrast to the pure entrepreneur who represents an aspect of all action, the integral entrepreneur refers to a narrower concept with less definite boundaries. Specifically, the concept is conditioned by a generally observed fact of human nature: there is a great range of inequality among human beings with respect to their abilities to foresee and swiftly and efficiently adjust their actions to changing conditions. The concept of the integral entrepreneur is restricted to the actions of those who are markedly superior in these abilities and who deliberately seek to earn their livelihood by risking their property in an endeavor to adjust production to the changes they forecast in the market data. Thus the concept refers to the quality of

leadership possessed by those who introduce new products or radically new methods of producing old products, the pioneers who discover untapped markets or sources of supply. As Mises (1998, p. 256) described it:

There are in the market pacemakers and others who only imitate the procedures of their more agile fellow citizens. The phenomenon of leadership is no less real on the market than in any other branch of human activities. The driving force of the market, the element tending toward unceasing innovation and improvement, is provided by the restlessness of the promoter and his eagerness to make profits as large as possible.

Of course, like everyone else, the entrepreneurs operate in a world of uncertainty and are liable to err in their actions. There are also many people who aspire to their ranks but who lack the required talents and abilities. Moreover all entrepreneurs are continually being ranked on their success in fulfilling the most pressing wants of consumers using the cheapest methods possible. Thus an entrepreneur who has been consistently successful in his past endeavors always faces the prospect of being ousted from his position by a newcomer who may create an entirely new industry or revolutionize production methods in an existing one. These considerations explain the losses and even total ruin regularly incurred by entrepreneurs, including some who in the past may have demonstrated the will, the vision, and the leadership capacity to organize and direct highly successful business firms.

While both the pure entrepreneur and the integral entrepreneur refer to real action, the latter signifies a more restricted and less rigorously defined class of actions. In the real world, the actions of laborers, landowners, and capitalists all necessarily embody a

speculative or entrepreneurial element and, therefore, all wages, rents and interest returns are commingled with elements of profit and loss. The construct of the pure entrepreneur was devised to allow the economist to isolate and analyze this universal aspect of action, i.e., uncertainty, and its implications for the formation of catallactic incomes, namely, monetary profits and losses. In contrast, Mises's promoter-entrepreneur "cannot be defined with praxeological rigor" (Mises 1998, p. 256). This is so because the concept specifies a concrete quality of human agency that does not shape the actions of all men alike. This quality is the will and ability to assume *leadership* in the social division of labor by pushing or promoting oneself into a position of organizing and directing the factors of production. In practice the man who achieves such a status in the market economy must be a capitalist and property owner, although not all capitalists are integral entrepreneurs in our sense; the latter *bear* uncertainty as an inescapable, ancillary cost—in addition to abstention from present consumption—of earning interest on their invested capital. For example, the purchaser of an insurance annuity or of a share in a bond mutual fund acts entrepreneurially but is not an integral entrepreneur.

This brings us to an important methodological point. The concept of the integral entrepreneur inevitably shades into that of the capitalist (or laborer) who is not endowed with the quality of leadership and is content with an interest return (or wages). There is no way to distinguish one from the other with praxeological exactitude, because in the real world all choices about the disposition of property are fraught with uncertainty and all factor incomes therefore embody elements of profit or loss. As Mises (1998, p. 333) observed:

All people are anxious for the best possible satisfaction of their wants and are in a sense striving after the highest profit they can reap. The mentality of the promoters, speculators, and entrepreneurs is not different from that of their fellow men. They are merely superior to the masses in mental power and energy. They are the leaders on the way toward material progress. They are the first to understand that there is a discrepancy between what is done and what could be done.

Thus all capitalist-investors are not entrepreneurs in the narrower, less precise sense. This is why “the market is always full of capitalists anxious to find the most promising employment for their funds and in search of the ingenious newcomers, in partnership with whom they could execute the most remunerative projects” (1980, p. 117).

For Mises (1998, p. 256) the concept of the “entrepreneur-promoter” is thus like that of money. Money cannot be defined with praxeological rigor; it can only be identified by a historical judgment. According to Mises (1998, p. 395), money is a vague concept because “its definition refers to the vague term ‘commonly used.’ There are borderline cases in which it cannot be decided whether a medium of exchange is or is not ‘commonly’ used.” Nonetheless, this fact does not render the propositions of praxeological monetary theory any less precise or exact, because “all that is to be predicated of money is valid for every medium of exchange.” Likewise, the notion of the integral entrepreneur is fuzzy, referring to one who is *especially able and eager* to profit from maladjustments between the current pattern of production and production that will most efficiently serve consumer demand at some point in the future. Nevertheless the

exact praxeological theorems applying to the integral entrepreneur as one who bears uncertainty by advancing saved funds to the factors of production in advance of the completion and sale of the product on the market also apply to all who invest savings in the market economy. And yet we are able to distinguish Bill Gates as an integral entrepreneur from a tailor who is sole proprietor of his own shop or a school teacher who regularly contributes a part of her salary to a pension fund. We do this by making the historical judgment that the superior foresight, business acumen and leadership of Bill Gates and others like him are reflected in “all market transactions and marks them profoundly” (Mises 1998, p. 256).

## 5. THE INTEGRAL ENTREPRENEUR: A MAN OF MEANS

Having elaborated the general character and methodological status of the integral entrepreneur, we now must analyze more closely his peculiar role and income as an owner-supervisor of a business firm. While this role as noted has been neglected in the Austrian literature in recent years, it was clearly discerned from the inception of Austrian economics. Before discussing Mises’s views on this issue, we survey the work of four of his predecessors in the Austrian tradition whose theoretical work profoundly influenced Mises.

### A. The Pre-Misesians

In the founding work of Austrian economics, Carl Menger (1981, p. 161) enumerated four aspects of “entrepreneurial activity.” These included, first, “obtaining information about the economic situation.” Recognizing that production as a causal process unfolded over time, Menger (1981, p. 68) well understood that the relevant information did not concern “needs of the immediate present” but involved “human

foresight” of those “needs that will be experienced when the process of production has been completed.” This information also pertains to the technological relationship among complementary goods employed in the production process as well as to the available stocks, in the present and future, of the various kinds of these producer goods and their outputs (Menger 1981, pp. 70-71, 90-91). The second form of entrepreneurial activity is economic calculation of revenues and costs to ensure efficiency.

Menger (1981, p. 160) emphasized, however, that these purely intellectual functions of market forecasting and economic calculation which underlie the production plan do not exhaust the range of entrepreneurial activities, for the entrepreneur “makes not only the underlying calculations but also the actual decisions to assign goods of higher order to particular productive purposes.” Thus the entrepreneur must undertake a third function, “the *act of will* by which goods of higher order . . . are assigned to a particular production process.” This act of will can only exert an influence on objective reality through the medium of a structure of capital goods controlled and, therefore, owned by the entrepreneur. To effectuate the goal of his action the entrepreneur must therefore assume a fourth function involving “supervision of the execution of the production plan so that it may be carried through as economically as possible.” Thus, the entrepreneur *qua* entrepreneur cannot alienate or delegate either one of these property-owning functions without abandoning the very pursuit of his ends.

Menger’s dictum regarding the economizing individual in general applies *a fortiori* to the entrepreneur: “His property is not an arbitrarily . . . combined quantity of goods, but a direct reflection of his needs, an integrated whole, no essential part of which can be diminished or increased without affecting realization of the end it serves.” Put

another way, the intellectual purpose and plan that the entrepreneur is pursuing gives meaning and structure to a complex of capital goods that transforms it into a unified business firm. Like all property, the firm inevitably bears the imprint of its owner's personality. Absent the tangible force of his personal control and supervision and the firm disintegrates into an agglomeration of goods without purpose or structure.

In his *magnum opus*, Böhm-Bawerk (1959, 1: 7) focused almost exclusively on analyzing the source and determination of the interest rate and explicitly refrained from tackling the problem of entrepreneurial profit. However, it is clear that he adopted his mentor Menger's view that the entrepreneur was an owner. Unambiguous evidence of Menger's influence is a statement by Böhm-Bawerk (1959, 1:6) at the outset of his treatise in which he depicted the entrepreneur's function in terminology remarkably similar to Menger's:

But even if [the entrepreneur] does not personally participate in the labor of production, he contributes a certain measure of personal effort, either by reason of the intellectual effort represented by his *supervision*, or by his formulating policies for the business to follow, or at the very least by the *act of the will* by which he determines that his means of production shall be enlisted in the service of that particular enterprise. And so the question arises whether we should not, in view of these considerations, distinguish two components in the total excess of proceeds realized by the enterprise. One component would be the result of contributing capital—the originary interest, as it were, and the other the result of the entrepreneur's effort. [Emphases added]

Throughout the rest of his treatise, Böhm-Bawerk highlighted the ownership aspect of entrepreneurial activity by referring repeatedly to the “capitalist-entrepreneur”—perhaps the first time this term was used in the history of economic thought.<sup>5</sup>

John Bates Clark analyzed the entrepreneurial function in both the “static state” and “dynamic societies.” In fact it was Clark who originated the concept of the non-owning pure entrepreneur under static conditions for the purpose of analyzing the determination of functional income shares.<sup>6</sup> In explaining the phenomenon of profit, Clark (1918, p. 119) explicitly stripped the entrepreneur of his roles as capitalist and superintendent of the business, transforming the entrepreneur into “the purely mercantile functionary who pays for the elements of a product and then sells the product.” Clark (1918, pp. 119-20) presented this novel definition “at the cost of using the term *entrepreneur* in a stricter sense than the one customarily attached to it” and while knowing “perfectly well that, in actual business, it is desirable and often quite essential that the same one who acts as an entrepreneur should also put into the business some labor as well as some capital.”

Clark (1918, p. 122) recognized, furthermore, that this definition logically implied that the pure entrepreneur is almost an incorporeal entity:

---

<sup>5</sup> It should be noted that Böhm-Bawerk (1959, 2: 255-56) did not completely neglect entrepreneurial profits or subsume them under the ownership function; rather he explained them as the product of the “infinite number” of “frictional obstacles” that impedes the instantaneous adjustment of the production structure to the ceaseless changes buffeting the economy. The resulting economic maladjustments “are the inexhaustible source from which flows the constant stream of entrepreneurs’ profits—and of entrepreneurs’ losses as well.”

<sup>6</sup> Clark was the first to rigorously formulate the analytical device of functional distribution as well as the notion of the “static state” and the method of isolating and then analyzing economic change using “the laws of rest.” Mises took over these Clarkian imaginary constructs and gave them a central roll in praxeological economic theory as “imaginary constructions,” e.g., the “evenly rotating economy” and the “final state of rest” (Salerno 2006).

Purely passive is the function of the entrepreneur under static conditions... In so far as any effect on his income is concerned he might as well reside in a foreign land as in the one where his business is located. . . . [T]he purely mercantile operation of getting a title to a product and then surrendering it can be carried on as well in one place as another. The *entrepreneur* in his capacity of buyer and seller does not even do the work which purchases and sales involve. . . . Sales and purchases are made in his name, but he does none of the work that leads up to them.

Clark's purpose in imagining the pure entrepreneur was to demonstrate that when factors of production have all been allocated to their most value productive uses, the marginal productivities and market values of each and every kind of labor and capital are equalized across all industries at their "static level." With all factor incomes at their "normal" or static values, there is no further incentive for entrepreneurs to reallocate resources because profits and losses are "nil." With prices equal to per unit costs, the money incomes paid out by the entrepreneur are equal to the money revenues he receives. Thus, according to Clark (1918, p. 126), the entrepreneur "in a static condition" is merely "the universal paymaster."

Once change is introduced into the economy, however, Clark (1918, pp. 123-24) argued that the nature of the entrepreneur changes fundamentally:

In a dynamic state the *entrepreneur* emerges from his passive position. He makes the supreme decisions which now and again lead to changes in the business. . . . This activity is not ordinary labor but in a true sense it is a productive activity, since it results in placing labor and capital where they can

produce more than they have done and more than they could do were it not for the enabling act of the *entrepreneur* which places them on a vantage ground of superiority.

The “enabling act” referred to by Clark in this passage is, like Menger’s “act of the will,” the projection of the entrepreneur’s purposes, plans, and very personality into objective reality through the medium of his property.

That he conceived the entrepreneur of dynamic theory as an active owner, Clark (1918, pp. 154, 157) left little doubt. Viewing “*entrepreneur’s profits*” and “residual income” as “synonymous terms,” he noted, “In the static state no such residual income exists, but from a dynamic society it is never absent. Every entrepreneur makes some profits or losses. . . .” The entrepreneur in a dynamic society therefore must actively strive to make the residuum left after factor incomes are paid as large as possible, which means that “that part of the management of a business which consists in making the most far-reaching decisions cannot safely be intrusted [sic] to a salaried superintendent or other paid official and must get its returns, if at all, in the form of profits.” These entrepreneurial decisions and superintendence are necessary to produce an excess of gross return over factor payments, “thus creating a remainder or residuum.”

As is well known, Frank A. Fetter was a major influence on Mises in distribution theory, particularly the theory of interest (Fetter 1977). What is not generally recognized is that Fetter also came closest to the fullest conception of the integral entrepreneur prior to Mises. Fetter began with the “conception of investment profit,” which he defined as “the income attributable solely to the active capital investment in the particular enterprise.” The rate or amount of investment profit “is peculiar to each business and

indeed to each investment” and is a “residual” after all contractual payments have been made and the value of the (non-contractual) managerial labor of the owner has been estimated and deducted. It is a composite, in other words, of two elements: 1. the rate of interest, i.e., “the prevailing rate of time preference,” that represents “what capital can do by itself or with a negligible amount of judgment and supervision” [parentheses suppressed]”; and 2. the excess above the interest rate attributable “to the successful act of investment.” However, the pure interest rate is only isolable in abstract analysis and cannot be separated from the overall return on investment even in theory, without resort to the artificial analytical assumption that capital can be invested without positive acts of judgment and supervision. The reason, as Fetter (1915, 345-46) explained, is:

[H]owever far we attempt to eliminate the personal service element of management from profits, there always remains in any active capital income this one element of investment management together with the carrying of the financial risk. There is a dual character in investment profit; it is a capital-income and a labor-income combined. The distinctive feature of investment profit . . . is precisely this excess (deficit) of income in active-capital as compared with the normal prevailing rate of time-price, which can be secured by the most conservative passive investor. It is the hope of income *more than* ordinary interest, that is the inducement to active capitalists to assume the risk. We may call the amount realized more or less than the imputed yield of passive investment, pure investment profit, attributable to the exercise of the *pure* investment function.

Thus, Fetter posited a qualitative difference between the “active capitalist” and “passive investor” in order to analytically distinguish pure profit from the interest rate. But he recognized that in the real world the difference was only a matter of degree.

Wrote Fetter (1915, pp. 346-47):

The active-capitalist and the passive capitalist are not in contrast absolutely but relatively; the passive capitalist is not, and cannot be, completely freed from financial risk. . . . Risk is more or less everywhere in human affairs . . . . There is thus an investment risk, an element of enterprise, even in the safest investment....

Fetter used the term “enterpriser” to designate the individual who exercises the function of “active capitalist-investment” in business. It is clear from Fetter’s description of this function that uncertainty-bearing is inextricably linked with ownership and control of the factors of production. Thus the enterpriser assumes “the financial risk in undertaking the ownership of the various factors and of their results embodied in the products, in paying off other claimants, and in waiting for an income indeterminable in advance, but contingent on all the various fluctuations of the market.” (Fetter 1915, p. 346).

Fetter (1915, pp. 350-51, 349) also emphasized changes in the value of the enterpriser’s invested capital as the concrete manifestation of his profits and losses, stating:

“The enterpriser invests in order to realize profits. Enterprise is investment, the putting of capital into concrete forms of wealth. . . . The realization of profit means getting out a total sum of capital greater than was put into the business. Capital is thrown into the melting pot, and is crystallized into new forms of

wealth, which may or may not bear a greater price than the costs. . . . The variations of the market may sweep away not only all ‘profits,’ but all the invested capital.

Lastly, Fetter depicted the enterpriser as a leader and promoter who has pushed himself to the fore and has eagerly embraced the burden of risk others have shunned in order to capture anticipated profits. According to Fetter (1915, p. 347-48) the enterpriser “takes the more exposed frontier of risk,” while “workers and passive capitalists have taken the easy way, have ‘played safe.’” The enterpriser engages in “specialized risk-taking” and serves as “an economic buffer” who “feels first the influence of changing conditions.” The degree of a given enterpriser’s success depends on definite qualities and traits that constitute his concrete, historical personality as it projects itself into the flow of human affairs. As Fetter (1915, p. 349) put it: “The enterpriser’s economic survival is conditioned on vigilance, strength, and self assertion.”

To summarize, Fetter conceived the entrepreneur as an especially “active” capitalist, one who exercised the judgment and supervision of an owner in committing his capital to risky investment projects in anticipation of a rate of return that exceeded the normal or prevailing rate of interest. Furthermore, Fetter perceived that the choice made by the would-be entrepreneur to quest for income by undertaking risky ventures, as well as the outcome of this choice, were shaped by his possession of certain relatively rare qualities in human nature. While Clark and Fetter, in particular, explicitly contrasted the pure entrepreneur with a concept approaching the integral entrepreneur, all four pre-Misesians characterized the entrepreneur as a capitalist and owner in addition to a restless, venturesome, promoting uncertainty-bearer.

### B. Ludwig von Mises

If the integral entrepreneur, indeed, embodies three analytically separable functions, that of capitalist, owner, and entrepreneur in the narrow sense, we are short one income. For if the capitalist reaps interest for the function of postponing present consumption and investing the savings, and the entrepreneur earns profit (incurs losses) for his relative success (failure) in correctly anticipating and adjusting production to future events, then what income compensates the function of property owner-supervisor? The simplifying assumption that indiscriminate, unsupervised investment of capital automatically generates the prevailing rate of interest, while indispensable for grasping the nature and source of pure profit, is false and misleading and must be dropped when theorizing about the activities and income of the integral entrepreneur. For as we saw, there is a certain minimum of mental energy and even physical effort that must be expended in carefully choosing and continually supervising investment projects. This peculiar form of “labor,” which may be large indeed, cannot be separated from the ownership of specific property and therefore cannot be hired or delegated. It also involves an opportunity cost.

Mises (1998, p. 288, 290) was clearly referring to the ownership function performed by the integral entrepreneur when he warned, “One must not confuse entrepreneurial profit and loss with other factors affecting the entrepreneur’s proceeds.” He followed this by a similar caveat, “[O]ne must not confuse the various functions combined in the conduct of a business unit.” Mises (1998, pp. 288, 290) then distinguished between what he called “specific entrepreneurial profits” and “quasi-wage rates” earned by the entrepreneur. The latter component of his net investment income is

attributable to the entrepreneur's technical and organizational abilities and may like profit—but unlike regular wage rates—be positive or negative. For example, an entrepreneur may not recognize and adequately insure against unavoidable physical destruction of output associated with the production process he has invested in. Or he may hire managers who are technically inadequate to supervising the specific production process he has invested in. In both of these cases, the entrepreneur incurs higher monetary costs than necessary and a corresponding reduction in his monetary income as a result of unexpected fluctuations in physical output that could have been avoided had his personal technical knowledge or insight into others' technical knowledge and abilities been greater than it actually was. Contrariwise, the entrepreneur may earn increased net income from superior technological knowledge or from the “differential rent” yielded by relatively more productive factors that he alone discovers and knows how to employ more productively.

The quasi-wages rates generated by the personal attributes of the entrepreneur-owner are not only analytically separable from pure entrepreneurial profits but the two forms of income can move inversely to one another. Mises emphasized that the technological failure of a production process to yield the expected physical product does not “influence the specific entrepreneurial profit or loss.” The reason, Mises explained, is:

[T]he specific entrepreneurial profits and losses are not produced by the quantity of physical output. They depend on the adjustment of output to the most urgent wants of the consumers. What produces them is the extent to which the

entrepreneur has succeeded or failed in anticipating the future—necessarily uncertain—state of the market.

In other words, the narrowly entrepreneurial function is to bear uncertainty, to forecast and appraise market conditions yet to emerge. In contrast, there is no irremediable uncertainty involved in estimating the (physical) output of production processes, assessing physical productivities of technical personnel and capital goods in different uses, evaluating and choosing managers, designing an efficient organization—all of these are matters of the concrete entrepreneur's (relative) knowledge and ignorance, skill and ineptitude, acuity and obtuseness with respect to *existing* people, things and laws of nature. In sum, different entrepreneurs with equal sums of capital and the same access to given quantities and kinds of factors of production and who may view future developments in a very similar way, may well differ in the amount of gross physical output that they can produce per unit of cost.

Mises (1998, pp. 289-90) concluded that although the uncertainty-bearing and ownership functions are analytically separate and distinct, and their respective incomes move independently of one another, they appear on the real market as a unitary sum that determine the fate of the integral entrepreneur:

The elimination of those entrepreneurs who fail to give their enterprises the adequate degree of technological efficiency or whose technological ignorance vitiates their cost calculation is effected on the market in the same way in which those deficient in the performance of the specific entrepreneurial functions are eliminated. It may happen that an entrepreneur is so successful in his specific entrepreneurial function that he can compensate losses caused by technological

failure. It may also happen that an entrepreneur can counterbalance losses due to failure in his entrepreneurial function by the advantages derived from his technological superiority or from the differential rent yielded by the higher productivity of the factors of production he employs.

Far from assigning the ownership function a secondary or perfunctory role, Mises maintained that what distinguished the entrepreneur from the manager was precisely the ownership of capital. For example, Mises (1998, p. 303) argued:

Society can leave the best possible employment of capital goods to their owners. In embarking upon definite projects these owners expose their own property, wealth, and social position. They are even more interested in the success of their entrepreneurial activities than is society as a whole. . . . But if a manager is given a completely free hand, things are different. He speculates in risking other people's money. He sees the prospects of an uncertain enterprise from another angle than that of the man who is answerable for the losses.

Mises (1998, pp. 303-304) even went as far as to claim: "A successful corporation is ultimately never controlled by hired managers. . . . The marvelous achievements of corporate business . . . were accomplished by people who were connected with the corporation by means of the ownership of a considerable part or of the greater part of its stock . . . ." <sup>7</sup>

---

<sup>7</sup> Indeed, Mises (1998, p. 304, 804-805) attributed "the emergence of an omnipotent managerial class" and the associated bureaucratization of existing business firms to interventionist policies, especially confiscatory taxation of profits that prevents the accumulation of capital by new capitalist-entrepreneurs. Clark (1918, pp. 88-89) similarly argued that "even in the largest corporations," managers should be owners of some portion of the capital and recipients of some part of the profits. The reduction of the power of stockholding capitalists and entrepreneurs due to their displacement by "salaried men" in "controlling positions" caused by the growth of corporations, *ceteris paribus*, "tends to reduce profits."

Finally, we briefly note that at the core of Mises's critique of "market socialism" was his recognition of the indispensability of the ownership function performed by the entrepreneur. The misunderstanding of this function by the proponents of market socialism led them to profoundly misconstrue the fundamental nature of the capitalist economy that they sought to replace. Shorn of ownership prerogatives and responsibilities, socialist managers are no more able to solve the calculation problem than can the central planners they nominally answer to and whose place they have taken. After giving a vivid description of the central role of entrepreneurial capital owners in the market economy, Mises (1998, pp. 703-705) concluded:

Our problem [of economic calculation] does not refer to managerial activities; it concerns the allocation of capital to various branches of industry. . . . Those who confuse entrepreneurship and management close their eyes to the economic problem. . . . Those suggesting a quasi market for the socialist system have never wanted to preserve the stock and commodities exchanges, the trading in futures, and the bankers and money-lenders as quasi-institutions. One cannot play speculation and investment. The speculators and investors expose their own wealth, their own destiny. This fact makes them responsible to consumers, the ultimate bosses of the capitalist economy. If one relieves them of this responsibility, one deprives them of their very character. They are no longer businessmen, but just a group of men to whom the director has handed over his main task. . . . Then they . . . become the true directors and have to face the same problem the nominal director could not solve: the problem of calculation.

The foregoing critique of market socialism explains why Mises, in the quotation at the beginning of this paper, so strongly warned against conflating the imaginary construction of the propertyless, pure entrepreneur with the real entrepreneur who owns and controls the factors of production.

### C. Murray N. Rothbard

Although Mises's discussion marked a significant step forward in the understanding of the ownership function of the entrepreneur, he seemed ambivalent in distinguishing this function from the managerial labor that the entrepreneur may contribute to his own firm. Thus, as noted, at one point Mises (1998, p. 290) used the nebulous term "quasi-wages rates" to designate the return to this function. He sowed even greater confusion by equating "higher wage rates" with quasi-wage rates, stating, "The technologically more efficient entrepreneur earns higher wage rates or quasi-wage rates than the less efficient...." Perhaps Mises's uncharacteristic ambivalence on this point explains why Rothbard completely ignored his mentor's contribution in this area and took his cue directly from Böhm-Bawerk. Rothbard (2004, p. 602 fn. 50) cited part of the statement by Böhm-Bawerk quoted in the text above (p. 17), referring to it as "one of those extremely fertile but neglected hints of his." Rothbard (1997, p. 249) also eschewed Mises's term, "promoter-entrepreneur," and adopted the term, "capitalist-entrepreneur," a term used by Böhm-Bawerk for whom "the entrepreneur is clearly the capitalist and there is no possibility of such separation [i.e., between the capitalist and the entrepreneur]." <sup>8</sup>

---

<sup>8</sup> Rothbard also seems to have been influenced by a neglected and provocative essay on the theory of profit by Roy F. Harrod (1952).

Rothbard (2004, p. 601) begins his discussion by focusing squarely on *business owners* and enumerating two functions that they must perform: 1. “an *entrepreneurial* function of uncertainty-bearing in an ever changing world”; 2. a capitalist function in which they “advance present funds to the owners of labor and land factors and earn interest.” Business owners also may perform a third, managerial function for which “they earn an implicit *wage of management*, since they are performing work which could also be performed by employees.” Rothbard (2004, pp. 601-602) then poses the key question: “But is there a function which owning businessmen perform, and would still perform in the ERE [i.e., the evenly rotating economy or long-run equilibrium] beyond the advancing of capital or possible managerial work?”

In answering this question Rothbard (2004, p. 602) identifies what he calls a “decision-making function or ownership function” that extends beyond the capital advancing function and is separate and distinct from managerial labor. This function consists in the “ultimate responsibility and control of production” and stewardship of the product which remains the property of the capitalist-entrepreneur until it is sold on the market. This function cannot be delegated to hired employees, since it involves the “ultimate decisions concerning the use of property and the choice of the men to manage it.”

Rothbard goes on to analyze the theoretical implications of the decision-making function. Since this function involves the identification and hiring of competent managers and the choice of production processes to invest in which accord with the entrepreneur’s fundamental technical knowledge and abilities, it must continue in the ERE. For example, when he founded McDonald’s at age 52 in 1954, Ray Kroc had been

selling milk shake machines and paper products to restaurants throughout the U. S. for thirty years and possessed a broad practical knowledge of the industry he was later to revolutionize. Likewise, before founding the revolutionary WalMart retail chain in 1962, Sam Walton had worked in or owned a variety of retail stores since 1940. “I didn’t start as a banker or an investor or doing anything else than waiting on customers,” remarked Walton (Gross et al. 1996, pp. 177-181, 268-73.)

The decision-making function is also specific to each firm as it is an inalienable property of the owner’s personality. The owner thus does not earn an “implicit wage,” because the decision-making factor can never be hired and so there is no market wage to form a basis for the calculation of the factor’s opportunity cost. Rather, it earns a unique “rent of decision-making ability,” which tends to equal the factor’s discounted marginal revenue product or “the amount [the factor] specifically contributes to the firm’s revenue” (Rothbard 2004, p. 603). Given that decision-making ability is idiosyncratic and non-separable from the individual intellect, it differs from owner to owner and generates unequal rents with no tendency to equality. This accounts, according to Rothbard (2004, p. 603) for “the phenomena of ‘high-cost’ and ‘low-cost’ firms in any industry and indicates that differences in efficiency among firms are not solely functions of ephemeral uncertainty, but would persist even in the ERE.” Unlike Mises who seems to characterize owners’ quasi-wages as a Ricardian differential rent and fails to address the issue of whether they are a disequilibrium or equilibrium phenomenon, Rothbard clearly conceives the rent to decision-making to be absolute (although varying across firms) and to persist in the ERE.<sup>9</sup> Thus even marginal firms, i.e., the high-cost firms, in

---

<sup>9</sup> Mises, indeed, hinted that the ownership function would not endure in the ERE. Referring to the contradictions involved in pushing the ERE construction to its logical conclusion, Mises (1998, p. 249)

an industry would earn a positive decision rent for its owner. Were this not the case, Rothbard (2004, p. 604) points out, the firm's owner

. . . would be performing certain functions—making and bearing responsibility for ultimate decisions about his property and choosing the top managers—and yet receiving no return. . . . But there will be no reason for the owner to continue performing these functions without a return. He will not continue to earn what is *psychically* a negative return, for while he remained in business he would continue to expend energy in ownership while receiving nothing in return.

Rothbard's breakthrough thus came in carefully disentangling and analyzing the function and income of the business owner as the ultimate decision-maker and steward of his property from his function and income as a capitalist and as an entrepreneur *qua* uncertainty-bearer.

## 6. CONCLUSION

The aim of this paper was to present a more realistic analysis than currently exists in Austrian economics of the entrepreneur's role in shaping and driving the market process. In doing so, we were led by earlier contributions in the Austrian tradition to formulate the concept of the integral entrepreneur, who performs three functions that are praxeologically indivisible even in theory. Thus for someone to be an uncertainty-bearer in the narrow entrepreneurial sense, he must incur the incidence of losses, and so he must also be a capitalist who invests funds in purchasing factor services in advance of the sale

---

stated: “[I]t is impossible to eliminate the entrepreneur from the picture of a market economy. The various complementary factors of production cannot come together spontaneously. They need to be combined by the purposive efforts of men aiming at certain ends and motivated by the urge to improve their state of satisfaction.” But surely, as Rothbard has shown, these “purposive efforts” directed toward organizing productive factors would be forthcoming in the ERE because they are a necessary complement to capitalist investment and earn a separable rent that improves the state of satisfaction of the capitalist-owner.

of the product on the market. But since factor services, production processes and their intermediate products are not homogeneous, the invested capital is embodied in a unique concrete structure of particular goods, or *property*, whose make-up is transformed over time with the purpose of bringing the final product to fruition in the most efficient way. Thus the capitalist-entrepreneur must also operate as a property owner, who makes continual decisions regarding the supervision and stewardship of his property. Given the inevitable limits on the owner's individual's aptitudes, abilities, time and knowledge, these decisions involve the hiring of trustworthy and competent managers and the selection of production processes that are amenable to the capitalist-entrepreneur's technical capacities.

An important sidelight of this integration of the ownership function with the capitalist and uncertainty-bearing functions is a new perspective on the nature and organization of the firm. The firm appears now as the projection of the owner's personality, with all its cognitive and temperamental idiosyncrasies, into objective reality. Each firm's organization is shaped to accommodate the unique decision-making ability of the owner and it is perpetually transformed in a dynamic world by his decisions. The firm's organization is, furthermore, the immediate source of the integral entrepreneur's decision rents. The application of these insights should lead to a much richer theory of the firm's organization.

## REFERENCES

- Böhm-Bawerk, Eugen von. 1959. *Capital and Interest*. 3 vols. Trans. George D Huncke and Hans F. Sennholz. South Holland, IL: Libertarian Press.
- Clark, John Bates. [1907] 1918. *Essentials of Economic Theory: As Applied to Modern Problems of Industry and Public Policy*. New York: The Macmillan Company.
- Fetter, Frank A. 1915. *Economic Principles*. New York: The Century Co.
- \_\_\_\_\_. 1977. *Capital, Interest, and Rent: Essays in the Theory of Distribution*. Ed. Murray N. Rothbard. Kansas City, MO: Sheed Andrews and McMeel, Inc.
- Greaves, Percy L., Jr. 1974. Review of *Competition and Entrepreneurship* by Israel M. Kirzner. *Wertfrei: A Review of Praxeological Science* 1 (Spring): 17-20.
- Gross, Daniel and the Editors of *Forbes* magazine. 1996. *Forbes Greatest Business Stories of All Time*. New York: John Wiley & Sons, Inc.
- Hayek, F. A. 1931. "Reflections of the Pure Theory of Money of Mr. J. M. Keynes." Part I. *Economica*, No. 33 (August) pp. <http://www.mises.org/story/2474> 270-95. Available with an Introduction by Joseph T. Salerno at <http://www.mises.org/story/2474>.
- Hazlitt, Henry. 1974. Review of *Competition and Entrepreneurship* by Israel M. Kirzner. *The Freeman* 24 (December): 756-60. Available at <http://www.fee.org/pdf/the-freeman/issues/december%201974.pdf>.
- High, Jack. 1982. "Alertness and Judgment: Comment on Kirzner," in Israel M. Kirzner, ed., *Method, Process, and Austrian Economics: Essays in Honor of Ludwig von Mises*. Lexington, MA: D. C. Heath and Company. Pp. 161-68.
- Harrod, Roy F. 1952. "The Theory of Profit," in idem, *Economic Essays*. New York: Harcourt, Brace & Company. Pp.
- Kirzner, Israel M. 1973. *Competition and Entrepreneurship*. Chicago: The University of Chicago Press.
- \_\_\_\_\_. 1976. "Equilibrium Versus Market Process," in Edwin G. Dolan, ed., *The Foundations of Modern Austrian Economics*. Kansas City, MO: Sheed & Ward, Inc. Pp. 115-25.
- \_\_\_\_\_. 1985. "Uncertainty, Discovery, and Human Action: A Study of the Entrepreneurial Profile in the Misesian System," in idem, *Discovery and the Capitalist Process*. Chicago: The University of Chicago Press. Pp. 40-67.

Lachmann, Ludwig M. 1976. "On the Central Concept of Austrian Economics: Market Process," in Edwin G. Dolan, ed., *The Foundations of Modern Austrian Economics*. Kansas City, MO: Sheed & Ward, Inc. Pp. 126-32.

\_\_\_\_\_. "On the Recent Controversy Concerning Equilibration." *Austrian Economics Newsletter* 2 (Fall): 6-7. Available at [http://www.mises.org/journals/aen/aen2\\_2\\_1.asp](http://www.mises.org/journals/aen/aen2_2_1.asp).

Littlechild, S. C. 1982. "Equilibrium and the Market Process," in Israel M. Kirzner, ed., *Method, Process, and Austrian Economics: Essays in Honor of Ludwig von Mises*. Lexington, MA: D. C. Heath and Company. Pp. 85-102.

Menger, Carl. 1981. *Principles of Economics*. Trans. James Dingwall and Bert F. Hoselitz. New York: New York University Press.

Mises, Ludwig von. 1998. *Human Action: A Treatise on Economics*. Scholar's Edition. Ed. Jeffrey M. Herbener, Hans-Hermann Hoppe, and Joseph T. Salerno. Auburn, AL: Ludwig von Mises Institute.

O'Driscoll, Gerald P., Jr. 1977. "Spontaneous Order and the Coordination of Economic Activities." *The Journal of Libertarian Studies: An Interdisciplinary Review* 1 (Spring): 137-51.

\_\_\_\_\_ and Rizzo, Mario J. 1985. *The Economics of Time and Ignorance*. New York: Basil Blackwell.

Rothbard, Murray N. 1974. Review of *Competition and Entrepreneurship* by Israel M. Kirzner. *Journal of Economic Literature* 12 (September): 902-904

\_\_\_\_\_. [1985] 1997a. "Professor Kirzner on Entrepreneurship" in idem, *The Logic of Action Two: Applications and Criticism from the Austrian School*. Lyme, NH: Edward Elgar Publishing, Inc. Pp. 245-53

\_\_\_\_\_. 2004. *Man, Economy, and State: A Treatise on Economic Principles with Power and Market*, Scholar's Edition. Auburn, AL: Ludwig von Mises Institute.

Salerno, Joseph T. 2006. "Mises's Favorite Anglo-American Economists." *Mises.org Daily Articles* (October 6). Available at <http://www.mises.org/story/2345>.

Selgin, George A. 1987. "Praxeology and Understanding: An Analysis of the Controversy in Austrian Economics." Review of *Austrian Economics* 2, pp. 19-58. Available at [http://www.mises.org/journals/rae/pdf/rae2\\_1\\_2.pdf](http://www.mises.org/journals/rae/pdf/rae2_1_2.pdf).

\_\_\_\_\_. 1990. Preface to *Praxeology and Understanding: An Analysis of the Controversy in Austrian Economics*. Auburn, AL: Ludwig von Mises Institute. Pp. 5-7.

White, Lawrence H. 1976. "Entrepreneurship, Imagination and the Question of Equilibration." Unpublished ms presented at the Austrian Economics Seminar at New York University (March).

\_\_\_\_\_. 1979a. "The Austrian School and Spontaneous Order: Comment on O'Driscoll." *Austrian Economics Newsletter* 2 (Spring): 6-7.  
[http://www.mises.org/journals/aen/aen2\\_1\\_1.asp](http://www.mises.org/journals/aen/aen2_1_1.asp).

\_\_\_\_\_. 1979b. "On the Recent Controversy Concerning Equilibration." *Austrian Economics Newsletter* 2 (Fall): 6-7. Available at  
[http://www.mises.org/journals/aen/aen2\\_2\\_1.asp](http://www.mises.org/journals/aen/aen2_2_1.asp).

\_\_\_\_\_. 1982c. "Mises, Hayek, Hahn, and the Market Process: Comment on Littlechild." in Israel M. Kirzner, ed., *Method, Process, and Austrian Economics: Essays in Honor of Ludwig von Mises*. Lexington, MA: D. C. Heath and Company. Pp.103-110.