Entrepreneurship

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The theory of entrepreneurship is one of the weakest links in modern economics. Despite an extensive and diverse literature (see Hebert and Link 1988; Casson 2003), entrepreneurship remains "the phenomenon which is most emphasized yet least understood by economists" (S. M. Kanbur, quoted in Hebert and Link 1988, xvii). The entrepreneur "is at once one of the most intriguing and one of the most elusive in the cast of characters that constitutes the subject of economic analysis" (Baumol 1993, 2). Many microeconomic theory and industrial organization texts omit mention of entrepreneurship altogether because neoclassical economics posits no need for it (Hebert and Link 1988, 156–57; Baumol 1993, 14). A few define entrepreneurship perfunctorily as the confluence of business decision making and ownership, and they attribute the "law" of diminishing returns to the fixity of entrepreneurial capital within the firm (see, for example, Hirshleifer 1976, 228, 259). Survey texts expand this narrative by describing entrepreneurship as a factor of production, linking it to risk taking and innovation and tying entrepreneurial compensation to uncertainty and profits.

The economic literature on entrepreneurship per se typically defines the entrepreneur descriptively (that is, atheoretically). The term *entrepreneur* originally denoted anyone who undertook a project, and it subsequently grew to mean a merchant, employer, or manager (Hebert and Link 1988, 45–46). It has become synonymous in its loosest usage with self-employment and occasionally with self-unemployment. Several social science disciplines, including economics, sociology, psychology, history, and political science, have produced descriptive definitions (Casson 2003, 9); there are at least a dozen "distinct themes within the economic literature" alone (Hebert

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and Link 1988, 152). Virtually all of the economic themes are geared toward business enterprise, many are complementary, some are contradictory, and most lack empirical content. Nearly everything that might be said about entrepreneurship has been said at one time or another, in one way or another. Developing a "new" theory at this juncture consists largely of combining existing ideas in new ways—an entrepreneurial exercise in itself. The upshot is "a lack of any singular notion of just who the entrepreneur is and what he does that makes him vital to the economic process. . . . The concept of the entrepreneur admits no single, accepted definition in the literature of economics or its related disciplines. As a consequence, economic theory and policy dealing with entrepreneurship are bound to be ambiguous" (Hebert and Link 1988, xvii, xiii). For many economists, as for others, a

> realistic description of an entrepreneur would be one who is "at once a product and an agent of the historical process, at once the representative and the creator of social forces which change the shape of the world and the thoughts of man." In short, an entrepreneur is an innovator: someone who changes the factors of production to create something new. During the last couple of decades, the weight of evidence seems to be that such individuals are very few in number and that they reflect "general forces acting in the economy" more than they mold them. (Folsom 2003, 3, quoting Robert Thomas in part, footnotes omitted)

The entrepreneur is viewed nowadays as a mildly heroic figure, despite having been reviled (along with commercial pursuits generally) from classical antiquity until fairly recent times (he continues to be reviled whenever a "labor theory of value" binds analytical thinking). The entrepreneur serves the consumer's interest by looking at things as they are and seeing profitable ways to change them for the better (Mises [1949] 1996, 336–38). He is recognized as the individual who creates society's wealth and fosters economic growth (Schumpeter 1934; Leibenstein 1978; Baumol 1993). For all of this effort, he usually is assumed to be compensated out of the economic value that his efforts create.

Conventional entrepreneurship theory, in all of its variations, almost universally constrains the entrepreneur's role to activities within the firm, although economists occasionally admit that entrepreneurial behavior occurs in other venues as well, especially in the public sector. Few alternative concepts, other than generalized notions of "politics" and "self interest," have emerged to fill the lacuna. This situation is unfortunate for two reasons. First, economic thinking about entrepreneurship is divided across arbitrary descriptive boundaries, giving rise to insular theories of industrial organization, institutional change, economic evolution, politics, and human action, creating a situation where "[t]he ongoing fragmentation of knowledge and resulting chaos in philosophy are not reflections of the real world but artifacts of scholarship" (Wilson 1998, 8). Second, an overarching theory of entrepreneurship lies within the ambit of economic thinking.

The working definition of entrepreneurship that underlies this article is straightforward, though unconventional. *Entrepreneurship is the process by which individuals acquire ownership (property rights) in economic rents of their creation.* The creation and capture of economic rent in all its sundry forms (pecuniary and nonpecuniary, tangible and intangible) are the entrepreneurial individual's sole objectives not only in business enterprise, but in all aspects of life. The performance of entrepreneurial functions is the means to self-interested ends. Accordingly, *actions that either generate no economic rent (or generate losses) or that produce rent in which the individual acquires no ownership interest (as under salaried employment, for example) fail the test of entrepreneurship.* Individuals who earn only normal returns on their human capital are not entrepreneurs.

In this article, I summarize the scope of existing entrepreneurship theory, then expand three of its tenets: (1) entrepreneurship as a phenomenon of business enterprise; (2) economic rent as the source of entrepreneurial reward; and (3) uncertainty as the source of economic rent. The conclusion is not so much a new theory of entrepreneurship as a clarification and extension of existing theory based on classical principles of human action.

Entrepreneurship in Economic Theory

Entrepreneurship theory for the most part comprises descriptive statements about "indicative" characteristics (what the entrepreneur *is*)—delineating the entrepreneur "in terms of his legal status, his contractual relations with other parties, his position in society, and so on"—and about "entrepreneurial function" (what the entrepreneur *does*), depicting the entrepreneur in terms of "someone who specializes in taking judgmental decisions about the coordination of scarce resources" (Casson 2003, 19–20). The theory's failure to explain entrepreneurship empirically is a consequence of the extreme simplifying assumptions in neoclassical economics, in particular perfect competition and static market equilibrium, which assume, in turn, free and perfect information about markets, production processes, and so forth. These assumptions, which reduce the economic process to clocklike mechanics, overlook the need for specialized individuals to perform the discovery, coordination, promotion, and risk-bearing functions that neoclassical economics takes for granted. "The history of economic theory clearly demonstrates that the entrepreneur was squeezed from economics when the discipline attempted to emulate the physical sciences by incorporating the mathematical method. . . . Since there was not then, and is not now, a satisfactory mathematics to deal with the dynamics of economic life, economic analysis gradually receded into the shadows of comparative statics, and the entrepreneur took on a purely passive, even useless, role. . . . We may sacrifice realism on the one hand to gain precision, or we may give up precision on the other hand to gain realism. The choice we make determines the place of the entrepreneur in economic theory" (Hebert and Link 1988, 158–59). The "subjectivist" Austrian school of economics, which alone posits an entrepreneurial role within the economic process, supplies the realism in this context, whereas the "positivist" school, which derives "generalizations about economic phenomenon that can be used to predict the consequences of changes in circumstances" (Friedman 1953, 39), contributes the precision. The economist William Baumol starkly concludes that "the body of economic theory, as it has developed, offers no promise of being able to deal effectively with the description and analysis of the entrepreneurial function. For maximization and minimization have constituted the foundation of the theory, and as a result of this very fact the theory cannot provide an analysis of entrepreneurship" (1993, 14).

Economic theory intrinsically paints entrepreneurial individuals as self-interested economic actors, issuing from the same mold as Adam Smith's butcher, brewer, and baker. The alternative would be to assume that entrepreneurs are motivated by benevolence or altruism, and neither economics (see Becker 1976) nor sociobiology (see Wilson 1978) offers a theory of motivations that does not relate in some way to self-interest. Accordingly, economics posits implicitly that entrepreneurs maximize some subjective utility function in which pecuniary wealth and income (the objectives most commonly associated with entrepreneurship) are but two among many disparate variables. Other utility variables include such intangibles as status and ideological preferences. The economist Ronald Coase voiced the profession's dissatisfaction with the use of *utility* per se as an underlying motivational concept, arguing that "ultimately the work of sociobiologists (and their critics) will enable us to construct a picture of human nature in such detail that we can derive the set of preferences with which economists start" (1988, 4). The pioneering work by the biologist Edward Wilson (1978) and compelling work by other sociobiologists and evolutionary psychologists have led several economists to conclude that utility has sources in the intrinsic biological values of survival and reproduction (see, for example, Frank 1985; Rubin 2002), a conclusion that can be applied to entrepreneurship.

The Austrian school economist Ludwig von Mises compactly summarized the economic foundations of entrepreneurship theory. He began by considering the confusion caused by the many distinct themes describing entrepreneurship and the entrepreneur ([1949] 1996, 61), locating its source in the different meanings historians and economists have given to the concept. He argued against attempts to ascribe discrete activities to particular classes of individuals, explaining that:

> The entrepreneurs . . . of economic theory are not living men as one meets them in the reality of life and history. They are the embodiment of distinct functions in the market operations. . . . This function is not a particular feature of a special group or class of men; it is inherent in every action and burdens every actor. In embodying this function in an imaginary figure, we resort to a methodological makeshift. The term entrepreneur as used in catallactic theory ["the theory of exchange ratios and prices"] means: acting man exclusively seen from the aspect of the uncertainty inherent in every action. (251–53, 327)

Mises's insights "that dealing with the uncertain conditions of the unknown future—that is, speculation—is inherent in every action" and that "[i]n any real and living economy every actor is always an entrepreneur and speculator" (250, 252) intrinsically broaden the scope of entrepreneurship beyond the business enterprise, although this breadth is not developed fully in theory. Experience teaches that limiting entrepreneurship to the business enterprise, as many other economists before and since Mises have done, unavoidably casts the concept in terms that cannot easily be generalized into an overarching theory.

Mises sought to alleviate confusion in part by distinguishing between *entrepreneurship* and *promotion,* the latter being a subset of the former. He viewed entrepreneurship as an "imaginary construction of functional distribution. . . . The specific entrepreneurial function consists in determining the employment of the factors of production. The entrepreneur is the man who dedicates them to special purposes. In doing so he is driven solely by the selfish interest in making profits and in acquiring wealth" ([1949] 1996, 254, 290–91). Promoters, by contrast, are "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" (254–55).

Mises also distinguished entrepreneurs from managers: "The illusion that management is the totality of entrepreneurial activities and that management is a perfect substitute for entrepreneurship is the outgrowth of a misinterpretation of the condition of corporations" ([1949] 1996, 306). In Mises's view, "[t]he managerial function is always subservient to the entrepreneurial function. It can relieve the entrepreneur of part of his minor duties; it can never evolve into a substitute for entrepreneurship" (306). Although "[i]t is possible to reward the manager by paying for his services in proportion to the contribution of his section to the profit earned by the entrepreneur . . . [he] cannot be made [fully] answerable for the losses incurred" (306). Consequently, the manager's incentives and responsibilities never fully mimic the entrepreneur's.

Mises's Austrian school perspective, like the economist Frank Knight's pioneering Chicago school view, centers on the role of uncertainty. Mises argued that the entrepreneur's "success or failure depends on the correctness of his anticipation of uncertain events. If he fails in his understanding of things to come, he is doomed. The only source from which an entrepreneur's profits stem is his ability to anticipate better than other people the future demand of consumers" ([1949] 1996, 290). He characterized promoters, speculators, and entrepreneurs alike as being "the first to understand that there is a discrepancy between what is done and what could be done. They guess what the consumers would like to have and are intent upon providing them with these things" (336). In this regard, "[e]ach entrepreneur represents a different aspect of the consumers' wants, either a different commodity or another way of producing the same commodity" (338). The entrepreneur "is a speculator, a man eager to utilize his opinion about the future structure of the market for business operations promising a profit. . . . The only instruction required is self-understood and does not need to be especially mentioned: Seek profit" (585, italics and footnote omitted, 310).

In governmental operations and nonprofit institutions, by contrast, "[w]here economic calculation is unfeasible," Mises saw that "bureaucratic methods are indispensable [and must be substituted for] those of entrepreneurial management" ([1949] 1996, 311). Whereas entrepreneurs guess at the wants of consumers, using profit-and-loss as a guide, bureaucrats and politicians guess at the wants of constituents, using polls and election results as their guide. Although the promoter, speculator, and entrepreneur "cannot evade the law of the market" (291), the bureaucrat and politician do so through "the social apparatus of compulsion and coercion" (311). Mises thus argued implicitly against extending entrepreneurship theory per se to the public sector, and economists generally have refrained from doing so. Nevertheless, we cannot ignore Mises's more fundamental notion of the self-interested individual, who "derives a psychic profit from his actions, or else he would not act at all" (290). Work by the political scientist Eugene Lewis (1980), which I consider later, demonstrates the importance of Mises's "psychic profit" in generating public entrepreneurship. Furthermore, notwithstanding Mises's emphasis that public institutions do not generate true profits, public-choice analysts have shown that public entrepreneurs are rewarded out of profit equivalents—expanded perquisites, bribes, kickbacks, electoral support, votes, and other rewards—provided largely by private entrepreneurs. Moreover, the "tax maximization" hypothesis of government action (Brennan and Buchanan 1980) permits the extension of entrepreneurship theory to the public venue by substituting the implicit instruction "seek taxes" where Mises says "[s]eek profit." The key to extending entrepreneurship theory beyond the business enterprise, I maintain, lies in recognizing a broader scope of entrepreneurial rewards.

Mises's views on entrepreneurship were preceded by the economist Frank Knight's influential insights. Knight stressed the distinction between risk, which is insurable (that is, it can be eliminated by means of contingent contracts, hedging, and diversification), and uncertainty, or "the fact of ignorance and necessity of acting upon opinion rather than knowledge" ([1921] 1971, 268), which cannot be eliminated systematically through discovery and action. True Knightian uncertainty is inherently unknowable and not always fully imaginable.

Knight explained how uncertainty gives rise to the "pure profit" that is the entrepreneur's life blood. Pure profit is the accounting residual that remains after payment is made to all production factors, what Knight described as "a distributive share different from the returns to the productive services of land, labor, and capital" ([1921] 1971, 18 n. 2). Entrepreneurs are compensated out of this residual for having the sagacity and confidence to decide business issues in the face of uncertainty, where intuition and judgment are the only available guides. Knight dismissed the possibility that entrepreneurs are compensated for attacking uncertainty with routine innovation (what today is called "best practices") because these ideas diffuse too rapidly for pure profit to form. The casual accretion of empirical evidence has confirmed Knight's insight. Baumol, for example, notes that "reality seems to offer more than a few examples consistent with the picture that associates no more than normal profits with innovative outlays, a picture clearly different from that painted by the [later] Schumpeterian model [that stressed the role of innovation]" (1993, 115). Nonroutine innovation, by contrast, "automatically erects barriers to entry sufficient to permit some positive profit" (Baumol 1993, 120).

Economist Joseph Schumpeter, whose "creative destruction" (of stationary equilibrium) metaphor (1942, 84) has become synonymous with entrepreneurship, argued that entrepreneurial rewards (that is, Knightian profits) flow from the temporary monopoly rents that arise when the entrepreneur successfully carries out "new combinations" of ideas and resources. Innovating new and improved goods and services, new and expanded markets, and improved production methods, organizational structures, and supply sources were the functions that Schumpeter attributed to the entrepreneur. Coase's (1937) influential theory of the firm added transaction-cost minimization to Schumpeter's function list, implying that "in the absence of transactions costs, there is no economic basis for the existence of the firm" (Coase 1988, 14) and, consequently, no role for the business entrepreneur. A refined list of entrepreneurial functions can be assembled now from books written by entrepreneurs such as Donald Trump (1987), by executives such as Jack Welch (2005), and by economists such as marketing guru Michael Porter (1980, 1985). Schumpeter anticipated that the separation between business ownership and control (see Berle and Means 1932) would eventually transform these functions into routine institutional tasks. Despite considerable specialization since Schumpeter's time, however, individuals continue to produce sparkling examples of entrepreneurship.

Schumpeter saw entrepreneurial functions as occupying a small part of the entrepreneur's overall time and effort, the remaining time being spent on mundane and routine matters, such as office and personnel management, purchasing, marketing, and dealing with constraining laws and regulations (a less time-consuming task in Schumpeter's day). The Schumpeterian entrepreneur did not made a career out of entrepreneurship per se. Instead, he mixed entrepreneurship with other activities within the firm, earning a normal return on most labor and human capital as well as a separate, residually determined return on entrepreneurial capital. Schumpeter's entrepreneur was motivated not only by pecuniary profit and perquisites, but also by the intangible rewards stemming from a love for the game and a desire for recognition and respect.

Members of another group of influential Austrian school economists (see, for example, Kirzner 1973) emphasize that the entrepreneur is constantly alert to profitable exchange (arbitrage) opportunities and is the first to act when such opportunities appear. This emphasis complements many theories of entrepreneurship. These economists also emphasize the entrepreneur's "information-transforming" function, a view closely associated with another Austrian school economist, F. A. Hayek (1948), who argued that the market process fundamentally entails the creation, discovery, and transmission of knowledge.

Contemporary syntheses rest on these philosophical underpinnings. The economist Mark Casson's survey and synthesis of the literature concludes succinctly that "an entrepreneur is someone who specializes in taking judgmental decisions about the coordination of scarce resources" (2003, 20). He characterizes his synthesis as being "institution free," although it "follows the convention of confining the analysis to the operations of the private sector of the economy"(21). This narrowness is disappointing, given his recognition that, "[i]n principle, the entrepreneur could be a planner in a socialist economy, or even a priest or king in a traditional society. In practice, though, entrepreneurship is closely identified with private enterprise in a market economy" (21).

A similar survey and synthesis by the economists Robert Hebert and Albert Link in the late 1980s produced a descriptive theory that "bears a close relationship" to Casson's views and to conventional entrepreneurship theory generally:

> We define the entrepreneur as someone who specializes in taking responsibility for and making judgmental decisions that affect the location, the form, and the use of goods, resources, or institutions. . . . Like Casson, we hold that the entrepreneur is a person, not a team, committee, or organization. The person has a comparative advantage in decision making, and makes decisions that run counter to the conventional wisdom either because he/she has better information or a different perception of events and opportunities. . . . Military and political life provide as much scope for entrepreneurship as economic life, but capitalism is a peculiar set of institutions and property relations that provide the widest berth for entrepreneurship. Our definition accommodates a range of entrepreneurial activities within a market system, including: coordination, arbitrage, ownership, speculation, innovation, and resource allocation. It does not deny that entrepreneurship is typically mixed with other forms of economic activity, but it holds nevertheless that the essence of entrepreneurship can be conceptually isolated and separately analyzed. (1988, 155–56)

Baumol takes a different approach to explaining entrepreneurship by combining conventional theory with public-choice insights. He focuses on the nature of entrepreneurial rewards ("the structure of economic payoffs"), from which he concludes, among other things, that the entrepreneur is not necessarily a heroic figure:

> My fundamental hypothesis is that the allocation of entrepreneurs between virtue and villainy, or to put it more dispassionately, between productive and unproductive activities, is not a matter of happenstance of little significance . . . . [T]he entrepreneur often makes no productive contribution at all, and in some cases plays a destructive role, engaging in what Veblen described

> as "systematic sabotage" of production. This does not happen fortuitously, but occurs when the structure of payoffs in an economy is such as to make unproductive activities such as rent seeking (and worse) more profitable than activities that are productive. . . . It is clear that entrepreneurship should not be taken as a synonym for virtuousness. . . . [A] change in the economic ground rules can make a difference in whether entrepreneurial efforts take forms that are productive or rent-seeking or are (as can sometimes happen) even directly destructive to the economy. (1993, ix, 1, 11, 18)

Baumol defines the entrepreneur as "any member of the economy whose activities are in some manner novel, and entail the use of imagination, boldness, ingenuity, leadership, persistence, and determination in the pursuit of wealth, power, and position, though not necessarily in that order of priority. In other words, the term is meant to encompass all *nonroutine* activities by those who direct the economic activities of larger or smaller groups or organizations" (7–8, emphasis in original). Baumol's reference to "groups or organizations" follows the conventional focus on business enterprise, although his analysis, like that of Mises, squares entrepreneurship broadly with individual self-interest.

The economist Harvey Leibenstein, like Baumol, stresses that the supply of entrepreneurship "depends on alternate opportunities available to potential entrepreneurs, as well as on the value society places on entrepreneurship as an activity versus the alternative occupations available to the entrepreneurs. In some cases employment in the civil service, the professions, political careers, careers in church organizations, [and] military organizations may carry greater prestige than entrepreneurship, and this will influence the supply" (1978, 54). He otherwise concentrates his analysis on business enterprise and the process of economic growth, noting that "[only] those individuals who have the necessary skills to perceive entrepreneurial opportunities, to carry out the required input gap-filling activities, and to be *input-completers* can be potential entrepreneurs" (50, emphasis in original). In an earlier work, he argued that "neither individuals nor firms work as hard, nor do they search for information as effectively, as they could," and he attributed this "X-inefficiency" to a combination of lax competitive pressure (especially acute in cases of monopoly) and a variety of other "motivational factors" (1966, 407, 412). Managers and other employees must be "motivated" (that is, plied with incentives) to act quasi-entrepreneurially within the scope of their employment, a point that has led some economists to characterize X-inefficiency narrowly as "agency" and "moral-hazard" problems (characterizations that Leibenstein resists). The need to synthesize incentives in order to stimulate quasi-entrepreneurial alertness, discovery, and action within organizations has led other economists to seek ways for implementing quasi-market processes inside the firm (Cowen and Parker 1997).

The economist David Harper summarizes thinking about the structure of economic payoffs by noting that "the supply of entrepreneurship is endogenous to the institutional context in which it is exercised. . . . The institutional framework determines the degree to which entrepreneurs and others are free to pursue their respective interests, to try to discover new problems and opportunities, to find ways of solving and exploiting them, to achieve rewards and to engage voluntarily in transactions with each other" (1996, 353–54) *Institutions* in this sense are what the economist Douglass C. North calls "the rules of the game in society or, more formally, . . . the humanly devised constraints that shape human interactions. In consequence they structure incentives in human exchange, whether political, social, or economic. Institutional change shapes the way societies evolve through time and hence is the key to understanding historical change. . . . Institutions reduce uncertainty by providing a structure to everyday life" (1990, 3).

Theory typically distinguishes between "*political entrepreneurs,* who depend on political manipulation for success ['relying heavily on the state and federal government for tariffs, subsidies, or other political advantages'], and *market entrepreneurs,* who try to excel by producing a quality product at a low price" (Folsom 2003, 96, 169, emphasis in original). Yet economists' view of "how and to what extent entrepreneurship depends upon the institutional framework" (Harper 1996, 354) too often overlooks how and the extent to which entrepreneurs simultaneously and strategically influence the institutional framework in which they operate—what Schumpeter saw as dealing with constraining laws and regulations. They fail to recognize, in other words, that entrepreneurs influence institutions at least as much as institutions influence them. This oversight has affected other areas of the economic literature as well, in part because, as with entrepreneurship, "neither current economic theory nor cliometric history shows any signs of appreciating the role of institutions in economic performance because there as yet has been no analytical framework to integrate institutional analysis into economic history" (North 1990, 3). North concludes that "[t]he agent of [institutional] change is the individual entrepreneur responding to the incentives embodied in the institutional framework. . . . [T]he immediate instruments of institutional change are political or economic entrepreneurs who attempt to maximize at those margins that appear to offer the most profitable (short-run) alternatives. . . . [I]t is the existing constraints and changes in incentives at the margin that determine opportunities" (83, 100). He argues, however, that "[t]he sources of change are changing relative prices or preferences" (83), which destabilize existing contractual agreements, causing at least one party to seek renegotiation. Failing a satisfactory resolution, adversely affected parties then seek to change the rules binding them to the old prices—that is, they seek to change the existing institutions. This process, when successful, results in the existing rules either being changed or else being ignored and going unenforced.

Explanations of this sort imply that institutional change is the entrepreneur's last line of defense, ignoring that it is a first line of offense as well and that it causes economic systems to evolve in unpredictable ways. Change in this context is driven by "the articulated interests of those [entrepreneurial individuals] who stand to gain or lose from politicization of the allocation of resources" (Peltzman 1980, 287). Where institutional rules are defined and enforced by the state rather than by quasi-private entities, political entrepreneurs are said to engage in rent-seeking activities (Baumol 1993). *Rent seeking,* as used here, is a pejorative term for describing actions that are intended to generate asymmetrical economic benefits by influencing and changing public institutions (see Tullock 1989, 1991). Entrepreneurial actions of this sort differ qualitatively from individuals' mechanical reactions to changing "relative prices and preferences." Opportunities for promoting institutional change have increased in recent years, making rent seeking an increasingly significant entrepreneurial function in which "[t]he state itself is becoming the chief weapon in a political war of all against all" (Yeager 2001, 249, paraphrasing John Gray 1989, 211–12).

A considerable portion of the economic literature surveyed to this point admits that entrepreneurship is not limited to the business enterprise, although none of its "distinct themes" develops the point explicitly. Economists working in the public-choice field have explored entrepreneurial behavior in the public sector at some depth, but so far they have not advocated an overarching theory of entrepreneurship to explain it.

Some of the most useful work in this area comes from outside economics, although it clearly benefits from economic thinking. Eugene Lewis documents anecdotally the behavior of the "public entrepreneur," whom he defines as "a person who creates or profoundly elaborates a public organization so as to alter greatly the existing pattern or allocation of scarce public resources. [Public entrepreneurs are]...people who reject normal system maintenance norms and attempt to expand the goals, mandates, functions and power of their organizations in ways unprecedented or unforeseen by their putative masters" (1980, 9). Lewis finds that "[t]he public entrepreneur distinguishes himself from others in that he uses organizations and their resources to achieve great aims, with minimal direction from other elements in the political system" (18). As in the private sector, the public entrepreneur's job is "the reduction of uncertainty in task environments" (20). Like all individuals, public entrepreneurs "have interests which always and everywhere diverge to a greater or lesser extent from the formal needs of the organization" (8); that is, the entrepreneur "sees the organization as a tool for the achievement of *his goals,* and his goals cannot be summarized by the simple phrase 'making it to the top'" (237, emphasis in original):

> [They are] archetypal "movers and shakers," our public entrepreneurs; they are the ultimate can-do Americans, men who rose to the top of their organizations by merit, guile, luck, and occasionally, sheer genius. Although consummate managers, they are living contradictions to the formulaic, management-by-the-book creatures of popular image....[Hyman] Rickover, [J. Edgar] Hoover, and [Robert] Moses epitomize the manager who accomplishes what he wants through nearly *any means at all.* This is not to suggest that the entrepreneurs were criminals in any conventional sense. Rather, they were "rule benders." They were crafty, and they pushed the limits of what was legal and permissible time after time without getting

> caught or, when caught, without serious punishment. They were snake oil salesmen of the first order, each with his own techniques and his own priorities. The public entrepreneur thus embellished is more recognizable and familiar to us. (243, emphasis in original)

According to Lewis, public entrepreneurs, unlike their private-sector counterparts, who are rewarded out of "pure profits," "derive their sustenance from accomplishment of their ends rather than from the approbation and rewards that accrue from corporate 'good behavior'" (235).

Differences between individual and organizational interests make the structure of economic payoffs equally important in the public sector, which implies that public entrepreneurs likewise are not necessarily heroic figures. The ability of institutions to control entrepreneurial moonlighting in positions of public trust is a critical element in economic development and growth. Development economists routinely grade the performance of public institutions according to such indices as "the degree of corruption…and the limits placed on political leaders" (Edison 2003, 36). Oversight and enforcement are especially tricky issues here because public institutions are under the influence and control of public entrepreneurs whose payoff structure the institutions are supposed to constrain.

Entrepreneurship Extended

An overarching economic theory of entrepreneurship clearly must do more than describe the behavior of economic actors within the business enterprise. It must encompass innovative behavior in all its significant forms, from technology development and public administration to clever lawyering and lobbying, begging, and grifting. It must encompass individual behavior across the full range of private-sector and public-sector institutions, and it must explain the movement of entrepreneurs between these venues. It must account for institutional change and economic evolution, as well as economic growth and development. And it must explain entrepreneurial reward in all of its many forms: pecuniary and nonpecuniary, tangible and intangible.

Economic theory has resolved many of these separate issues, as the preceding summary illustrates. However, it has not yet joined the disparate segments into a single, comprehensive theory of entrepreneurship. To this end, I offer some comments on three aspects of conventional theory, arguing for an overarching conception of entrepreneurship, a broader conception of entrepreneurial rewards, and a fuller appreciation of how entrepreneurs confront uncertainty.

An Overarching Conception of Entrepreneurship

I propose a straightforward definition of entrepreneurship: *the process by which individuals acquire ownership (property rights) in the economic rents of their creation*. This definition flows from two fundamental aspects of human action described by Mises: first, "[i]n any real and living economy *every* actor is *always* an entrepreneur and speculator" ([1949] 1996, 252, emphasis added); and second, "every individual derives [at least] a psychic profit from his actions, or else he would not act at all" (290). The definition offered here is not so much a product of new theory as it is the result of refocusing emphasis on some principles of human action whose importance to entrepreneurship theory has diminished over the years.

The creation and capture of profit in all its sundry forms—also called *economic rent* (I consider this equivalence more fully in the following section)—is the entrepreneur's sole objective not only in business enterprise, but in all aspects of life. The performance of entrepreneurial functions is merely a means to self-interested ends. To paraphrase Adam Smith, the externally beneficial economic consequences that sometimes flow from the performance of these functions are not a part of the entrepreneur's intention. Of course, there need be *no* externally beneficial consequences from entrepreneurship. As Baumol (1993) points out, entrepreneurship can be (and frequently is) parasitically wealth destroying and growth retarding, the clearest case being *rent seeking,* which in its narrowest technical meaning denotes entrepreneurship whose net economic consequences are negative (Tullock 1989, 55). Entrepreneurship requires only that the individual profit privately from his actions. Accordingly, as noted earlier, *actions that either generate no economic rent (or generate losses) or that produce rent to which the actor acquires no ownership interest fail the test of entrepreneurship.* The actor may be a bumbling fool or an able manager who acquires no property right in the rents he creates, but in either case he is not an entrepreneur.

The entrepreneur traditionally has been defined in terms of the functions he performs ("what the entrepreneur does") and by his intention to make money (even if he does not). By contrast, entrepreneurship in the sense advanced here is defined by objective success at acquiring a property right to some economic benefit (pecuniary or not, tangible or not) that leaves the individual subjectively better off than he would be under an abstract system of perfect competition (that is, within the static equilibrium of Mises's "evenly rotating" economy). This approach might appear at first blush to be inappropriately asymmetrical because of the economic role of losses in establishing and maintaining market equilibrium, because of its focus on the entrepreneur's mind (Mises [1949] 1996), and because losses provide essential feedback within the discovery and learning process (Harper 1996). Such considerations, however, are not relevant to the problem of distinguishing between entrepreneurship, on one hand, and poorly formed intentions, insufficient effort, and poor execution, on the other hand. The proposed definition provides a useful basis for distinguishing useful theories of entrepreneurship from philosophical conjectures and the many "distinct themes [and variations] within the economic literature" (Hebert and Link 1988, 152). It also serves well for distinguishing between entrepreneurship and management.

Entrepreneurship and Rent

The key to the conception of entrepreneurship offered here is a fuller appreciation of entrepreneurial profit, which is essentially equivalent to the conventional notion of *economic rent.* Briefly stated, economic rent is the portion of the payment for a production factor that exceeds the amount required to bring a factor into and retain it in a specific use (Alchian 1991). Equivalently, it is "that portion of a payment to an input which elicits no increase in output, that is, whose marginal product yield to the economy is zero" (Baumol 1993, 51). Neoclassical economics implies (and many textbooks explicitly note) that the absence or removal of economic rent, whether through the dissipating effects of competition or through overt confiscation, does not diminish static production incentives. In a dynamic sense, however, the *prospect* of capturing economic rent stimulates entrepreneurial discovery and action. Unlike the static incentive to produce goods under perfect competition, which is unaffected by the removal of economic rent, the incentive to act entrepreneurially diminishes as prospects for rent production and capture are lessened. This point is not emphasized in neoclassical economics, which posits no role for the entrepreneur, so it tends to be underappreciated.

Neoclassical economic theory locates economic rent in the differential between the equilibrium price of output and the marginal cost of inputs, a measure also termed *producer surplus* (accountants and laymen occasionally and misleadingly term this measure *profit*). Producer surplus is the complement of "consumer surplus," which is the difference between a good's market price and the amount that a consumer will pay to own and consume it. As price rises (falls) in reaction to changing consumer preferences and supply constraints, producer surplus increases (decreases) and consumer surplus decreases (increases), ceteris paribus. The ordinary rent-dissipating consequences of competition maximize consumer surplus by reducing price to the lowest level consistent with the long-run sustainability of production, thereby driving producer surplus, economic rent, and entrepreneurial profit toward zero.

A portion of every firm's total production cost does not vary strictly with output, so it is not marginal in the economic sense. Some costs are incremental to entire product lines, whereas others are fixed (in the short run) with respect to output. Producer surplus represents the revenue source from which nonmarginal costs are offset. No producer surplus remains under perfect competition once the firm's total costs—including economic depreciation, interest payments, and a normal risk-adjusted return on invested capital—have been paid, so zero economic profit is earned. A residual of producer surplus, by contrast, indicates that entrepreneurship has occurred. This residual, which Knight termed *pure profit,* is the traditional source of entrepreneurial reward. The economist Alfred Marshall (1920) awkwardly characterized this temporary residual as "economic quasi-rent" to distinguish its character from that of the regularly recurring "rent" paid for the use of land and other resources (Alchian

1991). The words *economic* and *quasi* tend to be dropped now, leaving the precise meaning of *rent* to be inferred from context.

No similar concept has arisen to decompose consumer surplus, which constitutes the differential between subjective value and market price. The term *rent* typically is not used for this purpose. Nevertheless, the consuming individual can be regarded as "producing" surplus private utility by maximizing the spread between value (benefit) and price (opportunity cost), just as business enterprises create rent by maximizing the spread between the marginal cost of production and the selling price of output. This similarity between production and consumption led Schumpeter to the early view that "the consumer is really the entrepreneur" (see Knight [1921] 1971, 33–34 n. 4) and led Mises to conclude that "every actor is always an entrepreneur and speculator" ([1949] 1996, 252). Economic surplus, by whatever name and in whatever form, is the objective of all human action, production being the means to final consumption and utility creation.

Accordingly, I propose some clarifying extensions to the language of entrepreneurship theory. First, I call traditional (Knightian) profit *real producer rent*. By contrast, I designate the surplus (or loss, if market value is less than marginal cost) that results from the production and sale of a single unit of output *nominal producer rent*. The sum of a firm's nominal rents yields zero economic profit under perfect competition. It leaves an economic loss to the firm's owners if the sum is too small, and it is the source of real producer rent (Knightian profit) in the presence of entrepreneurship. Real producer rent is the empirical test of entrepreneurship in the business enterprise.

Knightian profit is an empty concept in government operations and nonprofit organizations (Mises 1944, [1949] 1996, 311), which differ in many salient respects from conventional business enterprise. Nevertheless, successful government and nonprofit operations are observed to grow over time along many dimensions (staff, budget, authority, and the rewards paid to their creators, "public entrepreneurs," and patrons), and unsuccessful operations are seen to decline and occasionally to disappear. In this way, these organizations mimic the performance of business enterprises. It is useful, therefore, to conclude that successful government and other nonprofit operations earn what I term *real public rent*. These rents assume an indefinitely large number of forms, and each form itself is a product of entrepreneurial function.

Characteristic of government and nonprofit organizations is the disconnect between marginal cost, marginal revenue, and output—a correspondence that is paramount to profit-making enterprises. The notion of a "nominal" public rent has no clear relevance in the face of this disconnect, so I leave it undefined.

I propose roughly similar definitions for describing the consumption (utility-producing) side of human action. Individuals seek to maximize the economic return on the value of their life, liberty, and property (including all forms of capital: human, business, political, moral, and so forth) through a process colloquially called "the pursuit of happiness," which is subject to the institutional constraint that individuals may pursue private utility up to the point at which their action would encroach on the legitimate rights of others (Mill [1859] 1975). This characterization is an obvious abstraction, both because tastes and preferences differ among individuals and because utilities are subjective and not strictly commensurable. Its only purpose here is to show that individuals acquire utility (survival and reproduction opportunities, for example, as well as the resources with which to pursue them) by virtue of their knowledge, skill, and luck, and conversely that they suffer utility losses as a consequence of poor choices, flawed execution, and bad luck. Perfect competition among individuals for the factors of private utility would imply that each individual would generate utility at some equilibrium level, entailing a mix of many such wins and losses. Through entrepreneurship (alertness to opportunities; quick and innovative action), however, individuals can generate total utility that exceeds the equilibrium level of perfect competition, just as business entrepreneurs generate money profits.

In my view, the utility surplus resulting from entrepreneurship is *real utility rent*, whereas the random wins and losses that in the aggregate sum to equilibrium in the absence of entrepreneurship is *nominal utility rent*. Real utility rent (conceptually, at least, because it is not always susceptible to direct measurement) is the empirical test of entrepreneurship outside of business, government, and nonprofit organizations. Ordinary competition among private individuals drives real utility rent toward zero (equilibrium), just as competition among firms drives real producer rent toward zero (equilibrium).

Real utility rent, like real producer rent, is a valid measure of economic reward, although entrepreneurship theory rarely considers utility. Thus, the tangible, pecuniary measure of "pure profit" that echoes throughout the literature is too narrow for defining entrepreneurship, even as an *as if* simplification. Leibenstein's (1966, 1978) "X-efficiency" theory implies that business entrepreneurs take a significant portion of their profit as perquisites (large offices, thick carpets, exotic travel, and so forth) instead of as money. Employees, by comparison, compete for titles and ceremonial awards in exchange for exerting quasi-entrepreneurial effort on the firm's behalf. Public entrepreneurs "strive to achieve any number of personal goals, only some of which overlap with [articulated] organizational values" (Lewis 1980, 7), with bureaucrats competing for status and perks and politicians competing for votes. Pecuniary rewards, like bribes and kickbacks (what Lewis characterizes as "honest graft" [1980, 181]), and extortion (McChesney 1997) often appear alongside the nonpecuniary rewards to public entrepreneurship.

The upshot is that entrepreneurial rents take many forms—pecuniary and nonpecuniary, tangible and intangible—and their value must be assessed subjectively by the entrepreneur who creates and captures them. A few examples suffice to demonstrate this conclusion:

- Faulty institutional constraints at Enron allowed entrepreneurial managers and executive officers to create utility rents for themselves at the expense of the firm itself (see McLean and Elkind 2003; Eichenwald 2005);

- Rent seekers pursue, through political action, higher costs for their competitors, de jure monopoly business status for their firms, entitlement payments, selective tax abatements, and a variety of nonpluralistic preferences, including political, religious, and moral values, as well as many other narrow notions of the public good;
- Schumpeter's "love of the game" is a nonpecuniary rent for many entrepreneurs, such as Donald Trump, who began the first of his autobiographical odysseys by noting that "I don't do it for the money. I've got enough, much more than I'll ever need. I do it to do it. Deals are my art form. . . . I like making deals, preferably big deals. That's how I get my kicks" (1987, 3).

Entrepreneurship and Uncertainty

Economists and political scientists accept Knight's ([1921] 1971) argument that uncertainty is both the raison d'être for entrepreneurs and the source of entrepreneurial rewards. The ability to deal successfully with uncertainty is the defining characteristic of entrepreneurship in the economic literature. Knight illustrated uncertainty with reference to future supply and demand factors, and Leibenstein (1978, 6–7) argues that some elements of the firm's cost and production functions are inherently unknowable, which adversely affects management's ability to make and implement rational cost-minimizing decisions. Lewis observes that "the reduction of uncertainty in the immediate task environment of the organizations" is among the public entrepreneur's more significant tasks (1980, 8). Good luck, conventional vision, general knowledge, and routine innovation contribute nothing to entrepreneurship.

Entrepreneurs trade on their ability to make rent-producing decisions while in the grip of uncertainty. GE's former CEO Jack Welsh, whose management guide contains eight index references to "gut calls," asserts that "every leader has to have a vision and the ability to predict the future, but good leaders must have a special capacity to anticipate the radically unexpected. In business, the best leaders in brutally competitive environments have a sixth sense for market changes, as well as [for] moves by existing competitors and new entrants. . . . The ability to see around corners is the ability to imagine the unimaginable" (2005, 89). Donald Trump similarly advises decision makers to "listen to your gut, no matter how good something sounds on paper" (1987, 21). Where true Knightian uncertainty exists, however, entrepreneurs and managers perforce are no more able than anyone else to "see around corners" in order to anticipate the unknowable and to predict the unimaginable. True uncertainty blinds everyone equally, implying that decision makers can do no better than the law of chance dictates. Individuals cannot profit from true uncertainty for the same reason that stock pickers cannot beat the market (except by coincidence) in modern finance theory (Malkiel 1985).

Many difficult issues masquerading as true Knightian uncertainty actually consist of two relevant parts: a kernel of true uncertainty, and a remainder that is conceptually reducible, although the knowledge required to reduce it is disparate, cannot be articulated clearly, and cannot be shared among decision makers. Gut calls that systematically better the laws of chance reflect not mystical abilities, but a finely developed capacity for reducing reducible uncertainty. Intuition and judgment are the consequence of a large stock of fuzzy knowledge, a talent for effectively and efficiently supplementing knowledge in useful ways, a talent for accessing this knowledge on demand, and a talent (or at least a flair) for making crucial decisions on the basis of this knowledge. The public entrepreneurs that Lewis studied (1980) were highly educated (which served also to signal their innate abilities to others), but useful knowledge can be accumulated in many ways. Individuals become entrepreneurs through their comparative advantage at systematically using knowledge to eliminate and reduce some uncertainty outright and to transform other bits into manageable risk. The entrepreneur's diverse stock of fuzzy knowledge never becomes public or depleted, so it is a source of ongoing profits.

As noted earlier, the entrepreneur's decision-making talents often appear to be godlike, and the entrepreneur never intentionally dissuades others from this view. Each of Lewis's public entrepreneurs

> conveyed to his listeners the impression that he possess[ed] a knowledgeability and a capacity to carry out monumental tasks that no other element of the political system seemed able to accomplish. Each conveyed a sense of expertise and mastery, two of the most valued attributes in the society in general. Such a resource is a power-generating element of incalculable value, and our three [public] entrepreneurs employed it to the utmost to obtain and secure mandates and resources. The ability to achieve and convey this sense of mastery and expertise is, of course, directly related to the entrepreneur's personal characteristics and to his ability to create and maintain organization entities capable of backing such claims to the point of redundancy. (1980, 240)

Private-sector entrepreneurs behave similarly.

Entrepreneurs, like leaders in general, stand above the crowd by being charismatic and nuministic (godlike). The anthropologist F. G. Bailey notes that "[t]he leader who employs a numinous style presents an image of powers and capacities beyond those of ordinary people. He conveys the impression that he is—this is what 'numen' means—a divinity" (1988, 88). Bailey's leader is "someone who can make decisions and stick to them. . . . Ordinary mortals must calculate their way toward a decision and find themselves baffled when the complexity [uncertainty] of the situation defies computation. . . . A 'true' leader is gifted more than ordinary people with a mystical quality—intuition—which gives him 'inner conviction' and enables him to make decisions in a manner denied to the common person" (89–91). The entrepreneur, unlike the leader per se, "relies on intuition and not on reason" not because "reasoned argument is open to questioning by the use of reason" (90), but because the nature of uncertainty dictates it. Otherwise, leadership and entrepreneurship are two sides of essentially the same phenomenon.

The moral philosopher Harry Frankfurt views this "inner conviction" somewhat differently, calling it "sincerity": "Rather than seeking primarily to arrive at accurate representations of a common world, the individual turns toward trying to provide honest representations of himself. Convinced that reality has no inherent nature, which he might hope to identify as the truth about things, he devotes himself to being true to his own nature. It is as though he decides that since it makes no sense to try to be true to the facts, he must therefore try instead to be true to himself" (2005, 66). Accordingly, entrepreneurship, like leadership, is necessarily fraught with what Frankfort calls "bullshit": a "lack of connection to a concern with truth—[an] indifference to how things really are" (33). Its production is stimulated whenever an individual is obliged to speak without knowledge of the facts. Coase describes the entrepreneur along these lines as someone "who provides answers [in the face of true uncertainty] even when there are no answers" (1988, 66).

The absence of hard facts and the consequent irrelevance of concern for "truth" leave the entrepreneur with two possible postures, one of which is to proceed from sincerity and inner conviction, the other to pursue a "scientific" approach. A few economists argue "that regarding the creative process of discovery, the basic entrepreneurial act, there is little difference between the scientist and the businessman/entrepreneur" (Hebert and Link 1988, 6). Harper carries this idea to its logical extreme by hypothesizing that the entrepreneur formulates hypotheses in scientific fashion, then tests them in the market environment. He seeks to explain "how economic agents learn from experience in a disequilibrium environment of structural uncertainty and of how they act when their conjectures are refuted" (1996, 15). He portrays entrepreneurs

> as Popperian falsificationists who learn from the discovery of refuting evidence which falsifies (though never conclusively) their theories, rather than model[ing] them as inductivists who acquire knowledge by gathering data. In other words, entrepreneurs are depicted as learning from their mistakes rather than from their successes. It is through refutation that falsificationist entrepreneurs learn from their mistakes, and as they correct their mistakes their knowledge grows. (165, references omitted)

Learning in this context implies that the uncertainty at issue is not truly Knightian, for if it were, then Harper's "growth of knowledge" outcome would constitute valueless hindsight that cannot be generalized to other situations. Learning is worthless where uncertainty is not systematically reducible; it is tantamount to knowing the outcome of previous throws of fair dice.

Where uncertainty consists of Knightian kernels mixed with potentially reducible uncertainty, a scientific approach to decision making appeals on positive grounds alone. The physicist Richard Feynman describes how pure science deals with problems of mixed uncertainty: "the statements of science are not of what is true and what is not true, but statements of what is known to different degrees of certainty: 'It is very much more likely that so and so is true than that it is not true'; or 'such and such is almost certain but there is still a little bit of doubt' or—at the other extreme—'well, we really don't know.' Every one of the concepts of science is on a scale graduated somewhere between, but at neither end of, absolute falsity or absolute truth" (1999, 248). The scientific method thus extends beyond induction and falsification, reaching unavoidably into the realm of persuasion. Philosopher of science Thomas Kuhn explains the logic governing uncertainty and persuasion in science:

> the superiority of one theory to another is something that cannot be proved in the debate. Instead, . . . each party must try, by persuasion, to convert the other. [This is because] the proponents of incommensurable theories cannot communicate with each other at all; as a result, in a debate over theory-choice there can be no recourse to *good* reasons; instead theory must be chosen for reasons that are ultimately personal and subjective. . . . [R]easons function as values and . . . they can thus be differently applied, individually and collectively, by men who concur in honoring them. If two men disagree, for example, about the relative fruitfulness of their theories, or if they agree about that but disagree about the relative importance of fruitfulness and, say, scope in reaching a choice, neither can be convicted of a mistake. Nor is either being unscientific. There is no neutral algorithm for theory-choice, no systematic decision procedure which, properly applied, must lead each individual in the group to the same decision. ([1962] 1996, 198–200, emphasis in original)

The art of persuasion—a combination of honest rhetoric, "bullshit," and abject deceit—emerges as one of the entrepreneur's most valuable talents. It is the means by which individuals operating in a complex world pitch themselves, their profit-making ideas, and their integrity to capitalists, other entrepreneurs, and prospective employers. Welch describes the importance of "strong persuasion skills to make a case that will galvanize others" (2005, 85). Enron's former CEO Jeffrey Skilling is reported to have argued once that "Harvard Business School doesn't teach you accounting or finance, they [*sic*] teach you how to be convincing" (qtd. in McLean and Elkind 2003, 71).

The entrepreneur uses the tricks and techniques of persuasion not only to confront uncertainty but also to *create* uncertainty that cannot be deconstructed easily and fully by other individuals. Uncertainty is the source of entrepreneurial reward regardless of how it arises. Skilling's comment about being "convincing" was offered to disparage the technical abilities of a colleague with whom he disagreed over nominally objective accounting facts (return on investment) on which the colleague's bonus depended. Their raging disagreement led two business journalists to comment that "[i]t is astonishing, of course, that two high-ranking executives, working for the same company, sitting on the same board, and evaluating the same business, could come to such wildly varying conclusions" (McLean and Elkind 2003, 261). The business journalist Kurt Eichenwald concluded that "it was Enron's tragedy to be filled with people smart enough to know how to maneuver around the rules, but not wise enough to understand why the rules had been written in the first place" (2005, 11). Such conclusions overlook the play of entrepreneurship. Enron's tragedy was that its executives *didn't care* why the rules were written in the first place. What mattered to them were the private payoffs. If Skilling and his colleague had agreed on the objective facts and their interpretation, then they would have been acting as managers rather than as entrepreneurs who pursue utility rents within a perverse structure of economic payoffs.

Conclusion

Individuals desire to live comfortably relative to their family members, friends, and colleagues. Entrepreneurship, defined broadly as the successful creation and capture of economic rents in the face of uncertainty and scarcity, enables talented individuals to realize rewards that exceed the equilibrium level of perfect competition and so to live better than others as gauged in subjective utility terms. We all are entrepreneurs in this sense, as Mises described, performing entrepreneurial functions *as if* seeking to capture supranormal economic returns on personal capital of all sorts. We compete in life as in business for Knightian profit, broadly defined to include rewards that are pecuniary and nonpecuniary, tangible and intangible.

References

Alchian, Armen. 1991. Rent. In *The New Palgrave: The World of Economics,* edited by J. Eatwell, M. Milgate, and P. Newman, 591–97. New York: Norton.

Bailey, F. G. 1988. *Humbuggery and Manipulation: The Art of Leadership*. Ithaca: Cornell University Press.

Baumol, William. 1993. *Entrepreneurship, Management, and the Structure of Payoffs*. Cambridge, Mass.: MIT Press.

Becker, Gary. 1976. *The Economic Approach to Human Behavior*. Chicago: University of Chicago Press.

Berle, Adolph, and Gardiner Means. 1932. *The Modern Corporation and Private Property*. New York: MacMillan.

Brennan, Geoffrey, and James Buchanan.1980. *The Power to Tax: Analytical Foundations of a Fiscal Constitution*. New York: Cambridge University Press.

Casson, Mark. 2003. *The Entrepreneur: An Economic Theory*. 2d ed. Cheltenham, U.K.: Edward Elgar.

Coase, Ronald. 1937. The Nature of the Firm. *Economica* 4 (November): 386–405.

———. 1988. *The Firm, the Market, and the Law*. Chicago: University of Chicago Press.

Cowan, Tyler, and David Parker. 1997. *Markets in the Firm: A Market-Process Approach to Management*. Hobart Paper no. 134. London: Institute of Economic Affairs.

Edison, Hali. 2003. Testing the Links: How Strong Are the Links Between Institutional Quality and Economic Performance. *Finance and Development* 40 (June): 35–37.

Eichenwald, Kurt. 2005. *Conspiracy of Fools: A True Story.* New York: Broadway Books.

Feynman, Richard. 1999. *The Pleasure of Finding Things Out.* Cambridge, Mass.: Perseus Books.

Folsom, Burton. 2003. *Urban Capitalists: Entrepreneurs and City Growth in Pennsylvania's Lakawanna and Lehigh Regions, 1800–1920.* Scranton, Penn.: University of Scranton Press.

Frank, Robert. 1985. *Choosing the Right Pond: Human Behavior and the Quest for Status.* New York: Oxford University Press.

Frankfurt, Harry. 2005. *On Bullshit.* Princeton, N.J.: Princeton University Press.

Friedman, Milton. 1953. The Methodology of Positive Economics. In *Essays in Positive Economics,* edited by Milton Friedman, 3–43. Chicago: University of Chicago Press.

Gray, John. 1989. *Liberalisms: Essays in Political Philosophy.* New York: Routledge.

Harper, David. 1996. *Entrepreneurship and the Market Process: An Enquiry into the Growth of Knowledge.* New York: Routledge.

Hayek, Friedrich. 1948. *Individualism and Economic Order.* Chicago: University of Chicago Press.

Hebert, Robert, and Albert Link. 1988. *The Entrepreneur: Mainstream Views and Radical Critiques.* 2d ed. New York: Praeger.

Hirshleifer, Jack. 1976. *Price Theory and Applications.* Englewood Cliffs, N.J.: Prentice-Hall.

Kirzner, Israel. 1973. *Competition and Entrepreneurship.* Chicago: University of Chicago Press.

Knight, Frank. [1921] 1971. *Risk, Uncertainty, and Profit.* Chicago: University of Chicago Press.

Kuhn, Thomas. [1962] 1996. *The Structure of Scientific Revolutions.* 3d ed. Chicago: University of Chicago Press.

Leibenstein, Harvey. 1966. Allocative Efficiency vs. "X-Efficiency." *American Economic Review* 56 (June): 392–415.

———. 1978. *General X-Efficiency Theory and Economic Development.* New York: Oxford University Press.

Lewis, Eugene. 1980. *Public Entrepreneurship: Toward a Theory of Bureaucratic Political Power.* Bloomington: Indiana University Press.

Malkiel, Burton. 1985. *A Random Walk Down Wall Street.* 4th ed. New York: Norton.

Marshall, Alfred. 1920. *Principles of Economics.* 8th ed. London: Macmillan.

McChesney, Fred. 1997. *Money for Nothing: Politicians, Rent Extraction, and Political Extortion.* Cambridge, Mass.: Harvard University Press.

McLean, Bethany, and Peter Elkind. 2003. *The Smartest Guys in the Room: The Amazing Rise and Scandalous Fall of Enron.* New York: Penguin Portfolio.

Mill, John Stuart. [1859] 1975. *On Liberty.* Edited by D. Spitz. New York: Norton.

Mises, Ludwig von. 1944. *Bureaucracy.* New Haven, Conn.: Yale University Press.

———. [1949] 1996. *Human Action: A Treatise on Economics.* 4d ed. Irvington-on-Hudson, N.Y.: Foundation for Economic Education.

North, Douglass C. 1990. *Institutions, Institutional Change, and Economic Performance.* Cambridge, U.K.: Cambridge University Press.

Peltzman, Sam. 1980. The Growth of Government. *Journal of Law and Economics* 23 (October): 209–87.

Porter, Michael. 1980. *Competitive Strategy: Techniques for Analyzing Industries and Competitors.* New York: Free Press.

———. 1985. *Competitive Advantage: Creating and Sustaining Superior Performance.* New York: Free Press.

Rubin, Paul. 2002. *Darwinian Politics: The Evolutionary Origin of Freedom.* New Brunswick, N.J.: Rutgers University Press.

Schumpeter, Joseph A. 1934. *The Theory of Economic Development.* Cambridge, Mass.: Harvard University Press.

———. 1942. *Capitalism, Socialism, and Democracy.* New York: Harper and Brothers.

Trump, Donald. 1987. *Trump: The Art of the Deal.* New York: Random House.

Tullock, Gordon. 1989. *The Economics of Special Privilege and Rent Seeking.* Boston: Kluwer Academic.

———. 1991. Rent Seeking. In *The New Palgrave: The World of Economics,* edited by J. Eatwell, M. Milgate, and P. Newman, 604–9. New York: Norton.

Welch, Jack, with Suzie Welch. 2005. *Winning.* New York: HarperCollins.

Wilson, Edward. 1978. *On Human Nature.* Cambridge, Mass.: Harvard University Press.

———. 1998. *Consilience: The Unity of Knowledge.* New York: Vintage Books.

Yeager, Leland. 2001. *Ethics as Social Science: The Moral Philosophy of Social Cooperation.* Cheltenham, U.K.: Edward Elgar.