Toward a Theory of Public Entrepreneurship

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Abstract

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ABSTRACT

This paper explores innovation, experimentation, and creativity in the public domain and in the public interest. Researchers in various disciplines have studied *public entrepreneurship*, but there is little research specifically on the nature, incentives and constraints of public entrepreneurship to innovate in the public interest. We begin by extending concepts of the entrepreneurial firm to include greater interactions in the public domain, and then turn to the role of entrepreneurial firms in fostering institutional change. This focus points toward opportunities for integrating transaction-costs, political and international business theories to achieve a more refined institutional theory of firm-government interactions that incorporates entrepreneurial agency as a principal mechanism for innovating in the fulfillment of public and private interests.

Keywords: Entrepreneurship, public interests, political economy, institutions, transaction costs

INTRODUCTION

We are at a crucial turning point in the relationship between the state and initiatives of individual entrepreneurial firms, and at a time in American history when many public institutions and private firms are failing in the wake of the sub-prime lending crisis (Coleman, LaCour-Little & Vandell, 2008; Cowan & Cowan, 2004) and economic downturn. Governmental leaders are interested not only in promoting private entrepreneurship, but also in making government more entrepreneurial. At the same time, regulatory bodies have been sharply criticized for allowing too much innovation and experimentation by the private sector (e.g., in financial derivatives) and for providing too little of the structure required for private innovation (e.g., in alternative energy).

This paper outlines a theory of public entrepreneurship in which public entrepreneurs are conceived as judgmental decision-makers who experiment with combinations of privately and publicly owned resources in pursuit of social objectives. We submit that the familiar concept of the entrepreneur from management and economics can be useful for understanding how resource allocation and economic change occur in non-market settings. Its application is facilitated by defining political action as the creation or rearrangement of property rights in pursuit of political gain, but the analogy between the private entrepreneur and public entrepreneurial actor has limits and must be used with care. We also maintain that public entrepreneurship can not only substitute for, but also complement, private (firm-level) entrepreneurship. For better or worse, *private and public entrepreneurship are mutually dependent and co-evolve in ways that can be gradual or sudden and are often path-dependent* (Ostrom, 1990). We offer theory about public innovation by building and extending North's (1990) idea of states as transaction-cost minimizing mechanisms that maximize returns to ruling groups, noting that states can act "entrepreneurially" by realigning property rights and creating new governance mechanisms to increase these returns

-- thus joining private and public interests. Overall, the analysis extends and develops ideas about innovation in the public interest, clarifies how and why innovation may occur in the public domain, and points toward opportunities for further development of theory.

In developing our approach, we explore how management theories concerning entrepreneurship -- building principally on classic contributions from the economics literature -- can be extended and applied to consider innovation, alertness, judgment, and creativity in the pursuit of social, political, cultural, and other public objectives. We call this a theory of *public* entrepreneurship because we focus on entrepreneurial behavior in the public domain (Lewis, 1980; Roberts & King, 1996), and the effectiveness and efficiency of firms that promote the fulfillment of such public interests. We use the term “public” to distinguish between social, political, and cultural objectives from narrowly defined economic objectives (profit maximization, economic rent creation and capture, sustained competitive advantage, and so on), and explore such issues as how governmental leaders can reduce inefficiency in public agencies and how innovative solutions to public problems emerge (Bartlett & Dibben, 2002; Schnellenbach, 2007).

The examination of public entrepreneurship -- which is both enabled and constrained by a political system and institutional context (Henisz & Zelner, 2005; Maguire, Hardy & Lawrence, 2004) -- leads to terrain that has been well trodden in one sense but only lightly so in another. Research in a broad range of fields -- economics, history, government, international affairs, and political science -- has considered these issues, focusing particularly on understanding major changes in public interests and public institutions (Guthrie & Durand, 2008: North, 2005). The field of management would benefit from a systematic assessment of pressing issues in the public interest that joins insights from transaction-costs theory (Williamson, 1975), political science (Lindblom, 1977), and inter-national business studies (Henisz & Zelner, 2004)

Yet little research has been conducted from first principles on the nature and constraints of public entrepreneurship and the management of firms in fulfillment of public interests. We also know little about how to structure the firm to act innovatively, experimentally, creatively, and responsibly in pursuit of public interests to increase the likelihood of success, and yet with the understanding that entrepreneurship often fails.

The theory outlined here aims to shed light on the very nature of *public entrepreneurship* (Ostrom, 1965) and how substantive change in institutional agendas takes hold effectively. One salient example of public entrepreneurship can be seen in the widespread legitimization in recent years of privatization and global outsourcing of many functions that have traditionally been performed by government such as the construction of roads, the operation of information technology systems, and the construction and operation of prisons (Engel, Fisher & Galetovic, 2006; Gupta, 2008; Morris, 2007). How should the organizations charged with fulfilling public interests in each of these activities be evaluated for innovativeness and effectiveness? What criteria are relevant for evaluating alternative arrangements for fulfilling the public interest?

In the discussion that follows we take public interests or social objectives as given, meaning that we consider mechanisms for fulfilling these public interests or objectives whatever they may be.[1] We offer here neither normative claims about the "public interests" nor mechanisms by which individuals' preferences are translated into social objectives. Admittedly, this instrumental focus is stylized. For at least three reasons, "public interests" may not be well defined. First, the alignment of individual objectives into a public interest is a messy and

[1] Walsh, Meyer and Schoonhoven state that: "… we are beginning to see all manner of experiments that harness the corporation's capabilities to ameliorate social maladies. Understanding how to hold organizations accountable to Society as they slip the boundaries of the nation-state is tough enough; holding them accountable as they penetrate and shape our social lives may be the most prodigious challenge of all" (2006: 666).

complex problem. Mechanisms such as majority voting, arbitration, and consensus-building are highly imperfect aggregators of individual interests (Buchanan & Tullock, 1962; Downs, 1957; Riker & Ordeshook, 1973). Under some conditions, aggregation may not even be possible, such as when two opposing coalitions of equal size and power hold equally strong preferences for diametrically opposing actions (Arrow, 1951). Second, individual interests are multi-faceted, and therefore apparent alignment may reflect problematic understandings, unholy alliances, and temporary compromises. Third, private interests are constantly changing, which may mean that the current declaration of the public interest is no longer valid. While we consider the implications of change in the public interest for both organizational efficiency and effectiveness, we offer no analysis of the legitimacy or process of change itself (Suchman, 1995).

Despite these problems, we proceed with the understanding that research from related fields has long attended to the definition of the public interest, and that much more theoretical and empirical inquiry is required to identify public interests definitively (Stiglitz, 1998). We respect the difficulties in identifying the public interest but nevertheless consider how the concept of *global sustainable value creation* may be employed as a welfare-function criterion that goes beyond the economic focus on 'Pareto efficiency' and/or resource and wealth creation (Mahoney, McGahan & Pitelis, 2009).

CONCEPTS OF PUBLIC ENTREPRENEURSHIP

How can concepts of entrepreneurship from the management and economics literature be applied to non-market settings? The application is not trivial; while the entrepreneurial firm can be assumed to have well-defined objectives, can rely on market signals of success (profit) and failure (loss), and must overcome a competitive selection process to continue as a going concern, public actors have more complicated objectives, may not have access to clear signals of performance, and may persevere for reasons other than customer satisfaction and shareholder wealth. Close examination of seminal theories from economics and management regarding the nature of entrepreneurship illuminates opportunities for their application in the public domain.

Entrepreneurship is often conceived loosely as innovation, creativity, the establishment of new organizations or activities, or some kind of novelty more generally. As such, we expect entrepreneurship to occur in markets, firms, government agencies, and universities (Slaughter & Leslie, 1997). According to stricter definitions, however -- such as alertness to profit opportunities resulting from market disequilibria (Kirzner, 1997), the introduction of new consumer goods and business practices (Schumpeter, 1928), the investment of productive resources under uncertainty (Foss, Foss & Klein, 2007), the ability to adapt to exogenous change (Klein & Cook, 2006; Schultz, 1975) and/or the redeployment of complementary and co-specialized assets and the co-creation of markets, prices, and value (Pitelis & Teece, 2009) -- extending the concept of entrepreneurship to a non-market setting becomes more difficult. For one, political agents do not set up private organizations, at least in their capacity as political actors per se, and their objective is not meant to be private appropriation of any value created from their actions. For another, private organizations that seek to fulfill public interests may do so using contracts that rest on trust-based relationships that are difficult to understand using conventional economic metrics.

Consider the concept of entrepreneurship as the discovery and exploitation of profit opportunities (Klein, 2008; Shane & Venkataraman, 2000). If "opportunity" is conceived simply as a better way of doing things, then opportunities are everywhere including in the political sphere (Schuler, Rehbein & Cramer, 2002). The entrepreneurship research literature, however, defines opportunities more narrowly in terms of *economic value creation aimed at economic value capture.* Shane defines an entrepreneurial opportunity as "a situation in which a person can create a new means-ends framework for recombining resources that the entrepreneur *believes* will yield a profit" (2003: 18). This economic profit results from discrepancies between real (dis-equilibrium) prices and their long-run equilibrium values, and the pure entrepreneur "proceeds by his alertness to discover and exploit situations in which he is able to sell for high prices that which he can buy for low prices. Pure entrepreneurial profit is the difference between the two sets of prices" (Kirzner, 1973: 48). Entrepreneurial gain can be defined and measured with reference to private appropriation through prices that emerge in competitive market interactions.

If the objective of public entrepreneurship is to fulfill the public interest rather than to pursue economic profit, can anything be gained from this conceptualization (Bernier & Hafsi, 2007)? Improved understanding can be gained with the idea that both individual entrepreneurs and the entrepreneurial firm perceive gaps between actual and potential performance, and are willing to invest resources to achieve novel objectives, even if possessing only limited control over these investments. Where private entrepreneurs see a way to acquire resources and deploy them to achieve revenue in excess of costs, public entrepreneurs seek to marshal resources for fulfilling purported public or social interests and to deploy them for better performance on public objectives (Ostrom, 1965, 2005). We discuss these points in greater detail in subsequent sections.

A second major insight concerning the entrepreneur arises from Knight's (1921) concept of *entrepreneurship as judgmental decision making about investments under uncertainty* in terms of effectiveness in realizing objectives in the future. Judgment refers primarily to business decision making when the range of possible future outcomes, rather than the likelihood of particular individual outcomes, is unknown -- what Knight (1921) terms *uncertainty* rather than probabilistic risk. The critical distinction here is between the uncertainty of encompassing the range of possible outcomes that may arise after an action is taken and the assignment of probabilities to pre-defined actions. According to Knight (1921), entrepreneurship involves making investment decisions even without a clear view on the range of possible outcomes. In particular, the exercising of private sector entrepreneurial judgment involves the purchase of factors of production in anticipation of future receipts from the sale of finished goods.

Knight (1921) introduces the concept of judgment to decompose business income into two elements, *interest* and *economic profit*. Interest is a reward for forgoing present consumption, is determined by the relative time preferences of borrowers and lenders, and would exist even in a world of certainty. Economic profit, by contrast, is a reward for anticipating an uncertain future more accurately than others and such economic gains exist only in a world of “true” uncertainty. Given that production takes time, entrepreneurs will earn either economic profits or losses based on the differences between factor prices paid and product prices received. This understanding of entrepreneurship is central to Mises’s (1920, 1949) reasoning that rational economic planning is “impossible” under socialism; and that, without entrepreneurship, a complex economy cannot allocate resources to their highest-value use.

The critical insight from this reasoning for the *public* domain relates to theory development concerning uncertainty-bearing, control over resources, and the exercise of judgment about the efficiency of policies in fostering public interests. Under the Knightian conceptualization of entrepreneurship, the greatest economic returns accrue to those who successfully bear market uncertainties, which often requires establishment of new organizations and new organizational forms and involves processes of experimentation, failure and learning. In *public* entrepreneurship, these ideas translate to the view that breakthrough innovation requires making investments under uncertainty, which may yield major returns for the public, but which also may lead to failure. The subsequent success or failure, in turn, will impact analogously to the reputation of the political actor (a private interest). Whereas stewardship in the public interest is akin to accruing interest, entrepreneurship in the public interest is akin to achieving economic profits. The next sections apply these ideas to the public domain from first principles.

Entrepreneurship in Non-Market Settings

How, can concepts of entrepreneurship elucidate non-market behavior such as political action and other actions in the public interest (Holburn & Vanden Bergh, 2002)? A simple approach is to define entrepreneurship more loosely as "change" (Schneider, Teske & Mintrom, 1995). For example, Schneider and Teske define political entrepreneurs as individuals who's "policy proposals and political positions represent a dynamic change from existing procedures" (1992: 743). While this definition makes the concept of political entrepreneurship operational, it is not derived from a more general concept of the entrepreneur. Indeed, Schneider and Teske maintain that a theory of political entrepreneurship depends, implicitly, on some concept of economic profit, which "cannot be easily employed in the study of political entrepreneurs. Instead, a much more complicated [mathematical objective] function for the political entrepreneur must be developed, including terms related to policy success and status" (1992: 739-40). As political actors do not produce goods and services that are bought and sold on markets, political gains cannot be measured, in monetary terms, in the same way as economic profit, and political entrepreneurs cannot use strict monetary calculation to gauge the success of their efforts (Mises, 1944).

According to this logic, a theory of political entrepreneurship requires subjective measures of benefits and costs from the actor's point of view (Penrose, 1959). While such measures may be linked to the value created by their actions, other considerations can be equally or even more important. Examples of other considerations include perceptions by the electorate of fairness and subjective valuations by special-interest group members affected by political actors.

Positive political theory sidesteps the profit-measurement problem by contemplating that political actors have preferences over positions in some multi-dimensional policy space (Davis & Hinich, 1966; Milyo, 2000) allowing gains and losses to be measured in utility terms and outcomes to be ranked according to Pareto efficiency. The key insight here is that a clear definition of the public interest is not necessary. All that is required is a clear *enough* definition to allow for an appropriate choice of a slate of related polices. Entrepreneurial opportunities, in this framework, originate from "the removal of inefficiencies; [the] discovery of potential opportunities for gains from trade through the political process" (Holcombe, 1992: 147) or by finding new sources of revenue). Accordingly, the policy arena is another "marketplace" in which individuals exchange goods and services, where the units exchanged are policies rather than private goods.

North (1990), subscribing to this characterization, emphasizes transaction costs as a primary source of inefficiency and suggests that appropriately crafted political structures can create economic value by reducing these costs. More generally under this conceptualization, private and public entrepreneurs share the same basic objective, i.e., to capture value out of their advantages, capabilities and actions (Pitelis & Teece, 2009). In the case of private entrepreneurs economic value creation aimed at value capture (profit) is the criterion for success, while in the case of political entrepreneurs, the private benefits accruing are only indirectly linked to profits and may be realized in terms of popularity (e.g., electoral success) or some deferred reward rather than the direct, private appropriation of the created value.

In its purest form, this approach is consistent with the theoretical possibility of a well-defined public interest, although its elegance is in accommodating a Knightian-uncertain view of the public interest in which potential outcomes may not be measurable or even identifiable. All that is required is enough clarity concerning the public interest to enable the discernment of a dominant group of public policies that can be evaluated as a package for efficiency. The required level of clarity is in proportion to the differential impact of various policy alternatives. From this view, it is just one small step to the idea that public actors, charged with pursuit of the public interest, may pursue policies nominally for the public interest but actually also for personal gain. When a particular policy is dominant for the public interest, then the entrepeneur's opportunity for personal gain may be minimal, but when uncertainty is abundant, the ambiguity about public policy may create air cover for entrepreneurs who seek private benefits.

Holcombe (2002) applies the Kirznerian metaphor directly by defining political entrepreneurship as the identification and exploitation of political profit opportunities, which are identified as gains from trade analogous to those resulting from market exchange. Most of the political entrepreneurship literature takes a Schumpeterian perspective, however, focusing on *creative political innovations* that modify the way that public entities operate (Kuhnert, 2001; Mack, Green & Vedlitz, 2008; Oliver & Holzinger, 2008). In this sense, Teske and Schneider characterize entrepreneurs as helping to "propel dynamic policy change in their community" (1994: 331). Schnellenbach denotes this kind of entrepreneurship as promoting political innovations, defined as "non-incremental changes of political paradigms" (2007: 185). Note that under this definition, the objective function is even a level further removed, with only change itself as a requirement of entrepreneurship regardless of the motivation or the impact.

While the Schumpeterian metaphor is attractive, political entrepreneurship often seems far removed from the bold, intrinsically motivated pursuit of novelty typically associated with Schumpeter (Schnellenbach, 2007). Political entrepreneurship encompasses the mundane as well as the sublime. Moreover, political and public entrepreneurship, like bargaining, take place in the "shadow of the law" (Cooter, Marks & Mnookin, 1982). In other words, public entrepreneurship may be driven not by the pursuit of profit, but the fear of loss imposed by existing political institutions. Ostrom, for example, shows that an “immensely complicated” (1990:127) negative externality problem (Dahlman, 1979) of over-exploitation of ground water basins in California was successfully solved via *public entrepreneurship* by the decentralized water companies themselves, but only after a judge issued a credible threat to enforce a solution that would have disadvantaged all decision-makers involved. In this instance, public entrepreneurship by the judge involved the shaping of incentives in a way unanticipated by Schumpeter’s (1934) approach, which treats entrepreneurship as *sui generis,* not a response to market or institutional incentives.

Yet despite some of these differences, the relationship between the entrepreneur and the institutional environment may be similar across the private and public sectors. Ostrom (1990) maintains that unlocking the human potential of individuals requires an opening of both public and private institutions to mobilize collective action and to attenuate opportunism/free-riding (Hirschman, 1982; Olson, 1965; Williamson, 1996). In particular, e*ffective public entrepreneurship requires the co-evolution of an active public enterprise system together with a vigorous private enterprise system* (Ostrom, 2005). Public entrepreneurship can bring together unique combinations of public and private resources to take advantage of social opportunities (Kearney, Hisrich & Roche, 2007; Morris & Jones, 1999). Public entrepreneurship, which reflects the quality of institutional arrangements, is crucial for democratic capitalism (North, 1990; Sheingate, 2003). Furthermore, the processes by which these public and private systems interact are worthy of careful attention in the next generation of management research (Hillman, Keim & Schuler, 2004; Hitt, 2005; Keim & Hillman, 2008).

Political entrepreneurship can also be conceived as the creation or definition of property rights in ways that make political action more effective (Barzel, 1989; Foss & Foss, 2005), usually subject to the perception by the political actors that this will confer to them personal gain. As noted by Schneider and Teske (1992), the theory of political entrepreneurship can benefit from more precise conceptualizations of objectives, benefits and costs, and efficiency. Holcombe takes an efficiency perspective, noting that: "if political goals are not being implemented in the least-cost way, then there is a profit opportunity from restructuring the nature of the government activity so that the goals are achieved at least cost. The cost savings are a political profit that the entrepreneur can then apply toward the satisfaction of other goals" (1992: 147). Such goals usually relate to re-election (or, for civil servants, promotion or expanded authority) and in cases even to private appropriation of pecuniary benefits. If the political actor is a private entrepreneur or group of entrepreneurs seeking to use the political system to achieve economic goals -- e.g., an industry association lobbying for an import tariff, a firm seeking regulation that raises rivals' costs (Salop & Scheffman, 1983), an antitrust plaintiff hoping to stymie a more efficient competitor -- then the goals may be strictly pecuniary. Therefore, one opportunity for the development of the theory of public entrepreneurship is in integrating a conception of value-capture seeking private and public entrepreneurs with a framework that accepts the complexity of the private and public institutions deployed to frame and pursue the public interest (Kaplan & Murray 2009).

Besides the issue of measuring gains from trade in politics, there is another important distinction between market and political behavior: the allocation of resources through politics is based on forced transfers rather than through voluntary consent. Consequently, political actors can benefit (materially or in utility terms) from forcibly transferring resources from one individual or group to another. Holcombe states that: "If the political support lost from those who pay for the transfer is less than the political gain in support from the recipients, then the political entrepreneur can profit from such a forced transfer" (1992: 147). Hence, the exchange of resources through political markets cannot be presumed to be Pareto efficient (Bonardi, Hillman & Keim, 2005; Capron & Chatain, 2008). In Baumol's (1990) terminology, political entrepreneurship can be productive, unproductive or destructive. Destructive political entrepreneurship includes not only forced wealth transfers resulting from regulatory capture or other forms of rent seeking but also the discovery or creation of new forms of moral hazard, the creation of holdups, increasing transaction and information costs, and similar activities, problems that can arise in private organizations as well (Foss, Foss & Klein, 2007; Stern & Feldman, 2004).

Thus, political actors -- elected officials, government bureaucrats or civil servants, as well as individuals and organizations seeking to use the political process to accomplish private objectives -- can be described using the language of entrepreneurship theory, though not always perfectly. Like Kirznerian (1973) entrepreneurs, political actors seek to create or discover opportunities for gain, whether private or social. Like Knightian (1921) entrepreneurs, they invest resources, tangible and intangible (time, effort, reputation), in anticipation of uncertain future rewards. Like Schumpeterian (1934) entrepreneurs, they can introduce new products and processes. Unlike the entrepreneurial firm they cannot use privately appropriated benefits as a criterion for success, and the selection mechanism for allocating resources over time towards more successful political entrepreneurs is complex and not well understood. More importantly, political entrepreneurs are only likely to undertake actions that foster economic value if they personally benefit from these actions in ways other than the mere private appropriation of value created.

A final theoretical challenge emerges from the application of Kirznerian and Knightian conceptualizations of entrepreneurship to the public interest: The issue of distinguishing positive change -- that is, innovative, novel, and value-creating entrepreneurship -- from unproductive or value-destroying change (Baumol, 1990). An important challenge facing political systems is finding ways to encourage *productive* political entrepreneurship while discouraging its non-productive and destructive analogues.[2] Instituting appropriate formal and informal incentives, constraints and structures is a fundamental task for the theory and practice of political entrepreneurship.

Table 1 summarizes the major conceptualizations of public entrepreneurship discussed in this section. The first column lists concepts from the existing (private) entrepreneurship research literature, the second shows how each concept can be manifest in public entrepreneurship, the third lists issues and problems with the conceptualization, and the fourth column provides references to the extant literature. A look at the Table illustrates the variety of terms, concepts, illustrations, and issues that occupy this emerging research literature.

Insert Table 1 about here

Public Entrepreneurship as Organizational Entrepreneurship

The theoretical and empirical underpinnings of organizational entrepreneurship in the private sector are closely allied with a research agenda for understanding how entrepreneurial firms change in pursuit of the public interest. As noted above, public entrepreneurship is often tied closely to collective action, an understudied topic in the entrepreneurship research literature within the fields of management and economics. Entrepreneurship scholars typically focus on the lone entrepreneur or the one-person entrepreneurial firm. Recent research has begun to analyze

[2] On the selection mechanism for private-sector entrepreneurs see Alchian (1950), Mises (1951), Friedman (1953), Winter (1971), Elster (1989), and Hodgson (1993). The selection environment for political decision-making has received much less attention, with the exception of the debate in the law-and-economics literature over the efficiency of the common law (Benson, 1990; Crew & Twight, 1990; Rowley & Schneider, 2003; Rubin, 1977).

the practice of entrepreneurship in group settings (Cook & Plunkett, 2006; Foss, Klein, Kor & Mahoney, 2008; Stewart, 1989). Efforts to develop a theory of team entrepreneurship have focused on shared mental models, team cognition, and capabilities to assemble and lead complementary and co-specialized assets (Mosakowski, 1998; Pitelis & Teece, 2009). Penrose's (1959) concept of the firm's *subjective productive opportunity set* is an important link to judgment-based theories of entrepreneurship (Kor, Mahoney & Michael, 2007). Entrepreneurs can also form networks to share expectations of the potential returns to projects (Greve & Salaff, 2003).

Foss, Foss and Klein (2007) focus on the problem of delegated entrepreneurship: How do owners and senior managers organize the firm to encourage subordinates to exercise productive entrepreneurship -- creating or discovering new resource attributes, new business processes, and new business models that increase firm value -- while discouraging actions that reduce firm value? Strong delegation and performance-based compensation have the potential to increase both forms of entrepreneurship, suggesting a difficult and subtle tradeoff that must be managed to improve firm performance.

More generally, within the firm, entrepreneurial decision-making is entwined with problems of collective action (Hansmann, 1996; Olson, 1965). Commercial entrepreneurship is typically a team or group activity. Venture capital, later-stage private equity, and bank loans are often syndicated (Brander, Amit & Antweiler, 2002). Publicly-traded equity is diffusely held (Tirole, 2006). Professional-services firms and closed-membership cooperatives represent jointly owned pools of risk capital (Cook, 1995). Moreover, the firm's top management team -- to whom key decision rights are delegated -- can be regarded as a bundle of heterogeneous human resources, the interactions among which are critical to the firm's performance (Foss, Klein, Kor & Mahoney. 2008). Once an entrepreneurial opportunity has been perceived, decision-makers must assemble a team of investors and a management team, raising problems of internal governance (Kor & Mahoney, 2005). Shared objectives must be formulated; different time horizons must be reconciled; and free-riding must be mitigated (Casson, 2005; Witt, 1998).

In this sense, organizational and governance problems specific to political entrepreneurship are closely related to general problems of team, group, organizational or collective entrepreneurship. As such, the extant research literature on entrepreneurship within organizations -- corporations, partnerships, cooperatives -- should be helpful in understanding political entrepreneurship. Entrepreneurship in organizations requires the alignment of interests, the development of shared understandings, careful coordination and monitoring, and procedures to resolve disputes (Edwards, Jones, Lawton & Llewellyn, 2002). At present, there is little research on how organizational practices affect entrepreneurial processes. We see this as a critical link between entrepreneurship theory and the theory of public organizations. How can managers within an organization be incentivized to act in the public interest? What is the relationship between the financial obligations of an agency or commercial enterprise and organizational effectiveness?

The Co-Evolution of Public and Private Entrepreneurship

Political entrepreneurship can be conceived as entrepreneurship regarding the institutional environment or the rules of the game (constitutions, laws, norms, property rights and regulatory systems), while commercial entrepreneurship aims at creating economic value for the purpose of private appropriation within a given set of (shifting and non-immutable) rules (Argyres & Liebeskind, 1998; Lee, Peng & Barney, 2007). As the new institutional economics explains, such arrangements are “embedded” in a particular institutional environment (Coase, 1998; Klein, 2000; North, 1991; Williamson, 2000). Any change in the institutional environment brought about by public-sector entrepreneurship changes the setting in which private-sector entrepreneurship takes place. Furthermore, as Coase (1960) and Baumol (1990) emphasize, the legal political and institutional system establishes the general constraints concerning political entrepreneurial behavior. As we noted, this system is not immutable, and can be enabling as well as constraining.

Moreover, public and commercial entrepreneurial processes evolve in ways that are mutually reinforcing, challenging and legitimizing. Kaplan and Murray (2009) maintain that private entrepreneurship in biotechnology was fundamentally influenced by the co-evolution of public institutions, private corporations, and scientific discovery. Analysis of the three major phases of the biotechnology industry's development since the 1970s shows that the commercial viability of the biotechnology industry rested on the resolution of fundamental questions about public safety, the legitimacy of private ownership of the human genome, and rules for private use of findings from publicly-funded science. Entrepreneurship in the public domain to resolve these questions is a hallmark of the effectiveness of successful commercial entrepreneurs (Garud, Hardy & Maguire, 2007; Maguire, Hardy & Lawrence, 2004).

Even in established industries, private-sector entrepreneurship also involves communication of shared visions, alignment of interests, monitoring, and governance. Private-sector entrepreneurial firms must also work within, and sometimes inform and shape, the design of public institutions such as regulatory bodies, though this process can involve not only cost-saving innovation but also rent-seeking and other forms of wealth transfer.

Organizational sociology also suggests that political institutions and organizations may be characterized by embeddedness and isomorphism (DiMaggio & Powell, 1993; Granovetter, 1985). Political entrepreneurs are constrained by the need to fit existing norms and conventions, to plug into existing networks, and to avoid excessive novelty.

This close inspection of established theory points to the insights that arise when public entrepreneurs are identified as individuals or groups using political means to achieve social objectives that also further private interests. They do so by creating or reassigning property rights that reduce transaction costs or otherwise exploit political gains from trade, by coercing transfers from particular individuals or groups to others, by instituting regulations and promoting norms and by organizing individuals into groups for effective collective action. They share many characteristics with private entrepreneurs, as described in the classic economic contributions to the entrepreneurship literature, and often work hand-in-hand with commercial interests. At the same time, the entrepreneur analogy is an imperfect one, with important differences in the definition of objectives, the measurement of costs and benefits, the competitive selection environment, and the use of coercion.

THE PHENOMENON OF PUBLIC ENTREPRENEURSHIP IN THE 21st CENTURY

Contemporary calls for innovation in the public interest are frequent and resounding: in automobiles, banking, and healthcare, the mal-alignment of public and private interests has created unprecedented failures in both private and public institutions. Yet entrepreneurship occurs frequently in the pursuit of public interests (Mair & Mariti, 2006). Untold scores of public servants have worked to improve the efficiency and effectiveness of public institutions --- often without fanfare. Some public figures have taken controversial steps to improve the efficiency of public institutions even by disenfranchising well-established minority interest groups, such as when nine departments of government were consolidated to create the Department of Homeland Security (Relyea, 2004). Of course, individuals and groups also work continually to reshape public institutions to create and extract (private) economic rents, and it can be difficult to distinguish the former set of activities from the latter -- particularly when the pursuit of private gain is cloaked in the mantle of the public interest (Yandle, 1983).

Are current issues regarding innovation in the public interest qualitatively different from those that arose historically? One opportunity for further inquiry is in study of the emergence of private entrepreneurial firms that seek to commercialize activities pursued in the public interest. The explosive growth of private military companies such as Blackwater and MPRI since the end of World War II is paradigmatic of the process of public-sector organizational innovation (Avant, 2005; Baum & McGahan, 2009). The growth of these industries depends on the interplay between the resolution of public concerns, development of public institutions, and relative effectiveness of private organizations over public agencies at fulfilling public interests. In the case of private-military companies, some public figures have even gone as far as to divert the pursuit of the public interest toward private companies to favor the achievement of the public's efficiency goals even over other elements of the public interest, such as public debate and scrutiny.

Other political entrepreneurs focus on process, not particular programs or activities. Howard Jarvis, a private entrepreneur with a long career of organizational innovation in the public interest, is archetypical of a class of populists that have been celebrated for their accomplishments. A successful serial entrepreneur, Jarvis gained fame, notoriety & accolades, and was featured on the cover of the June 19, 1978 cover of *Time* Magazine for advocating Proposition 13 in California, which cut property taxes by 57% and inspired a national debate over taxation. Jarvis relied on door-to-door and street canvassing to collect the tens of thousands of signatures required to put Proposition 13 on the ballot (Smith, 1998).

Entrepreneurs such as Jarvis often arrive into public life with agendas, accumulated skills, relationships and capabilities that become the cornerstones of their impact. In the "learn, earn, serve" model heralded on today's campuses, many students embark upon careers in the private-sector upon graduation with the intention of accumulating credentials and capital so as to eventually support careers of public service (Austen, 1997). Many current politicians operate on this model, including former Massachusetts Governor and presidential aspirant Mitt Romney and the current California Governor, Arnold Schwarzenegger.

Private organizations also have an impact on public debate through hybrid structures in which their agendas are temporarily or only partially aligned with public interests. The private military contractors described above are an extreme example (Singer, 2003). More familiar examples include a wide range of multinationals that provide goods and services to public agencies and in the public interest for private gain. Such stalwarts of industry as IBM, General Electric and General Motors have long been suppliers to local, state and federal agencies with relatively little controversy. Other firms, including Nestle and Coca-Cola, have sold products both to the government and private purchasers concurrently but with controversy: Nestle's baby milk products have been promoted as a healthful alternative to breast milk, contrary to the advice of many physicians (Sethi, 1994), and Coca-Cola has been cited as an inappropriate consumer of precious clean water in India (Kaye, 2004). The recent explosion of academic interest in *public-private partnerships* testifies to the growing economic, political, and social importance of this phenomenon (Glachant & Saussier, 2006; Hodge & Greve, 2007; Martimort & Pouyet, 2008; Rangan, Samii & Van Wassenhove, 2006).

Hertz (2002) maintains that the dominance of multinationals in private and public life has become so great that global firms operate across national boundaries with sovereign authority. Hertz (2002) submits further that the culture of commerce has become so dominant and prevalent that private life has taken over public interests in a way that while often benign, is sometimes pernicious. The upshot is that the interplay between public and private interests is important and political mechanisms seem to be increasingly constrained by private organizations. As Horsman and Marshall (1994), echoing Vernon (1971), put it:

> Effortless communications across boundaries undermine the nation-state's control; increased mobility, and the increased willingness of people to migrate, undermines its cohesiveness. Business abhors borders, and seeks to circumvent them. Information travels across borders and nation-states are hard pressed to control the flow. . . . The nation-state . . . is increasingly powerless to withstand these pressures.

Horsman and Marshall's (1994) assessment is offered with alarm, but the ability of multinational firms to resist and reshape government action may result not only in private capture, but also in more efficient and effective public institutions (Jones, Pollitt & Bek, 2009). Therefore, entrepreneurial firms may be considered public entrepreneurs in the sense defined above.

Baum and McGahan's (2009) examination of the mechanisms that led to the outsourcing of military services shows how changes over time in public interests -- accumulated subsequent to the establishment of fixed capabilities and their embodiment in institutions -- can lead to the resolution of public-interest problems through outsourcing to private companies on markets. In some cases, such as the European Union's market for pollution rights or the proposal to create a regulated market for human organs, the state legitimizes, and indeed creates, a market to serve a perceived public interest (Jordan, Wurzel, Zito & Bruckner, 2003). These examples illustrate how temporal changes in strategic priorities for public agencies may be implemented under constraints created by prior solutions to the deployment of resources in the public interest.

Private organizations such as the Rockefeller and Gates Foundations (Fisher, 2003; Muraskin, 2006) may, as a specific mission, support or even create public agencies, particularly in developing countries (Ramamurti, 2004). For-profit firms such as Sekem, which has become a world leader in organic foods and phyto-pharmaceuticals in Egypt (Merckens & Shalaby, 2001), and Bangladesh's Grameen Bank can be effective in promoting economic development by facilitating private and social entrepreneurship (Alvord, Brown & Letts, 2004; Mainsah, Heuer, Kalras & Zhang, 2004; Rahman, 1999). Such private-sector philanthropic ventures and their public-sector counterparts, however, do not always exist in harmony. For example, the Gates Foundation, lauded for its effectiveness in global public health, has been criticized for diverting resources in resource-limited countries from generalized public health services to specific diseases that are of interest to the Foundation such as HIV/AIDS. This example raises questions about the balancing of competing public interests. According to Garrett (2007), while addressing HIV/AIDs in Haiti may be a public-health objective, the success of the initiatives sponsored by the Gates Foundation in controlling the disease there has raised the costs of pursuing other, closely related, public-health interests in the country. In general, the economical balancing of competing public interests may be neglected by the private organizations hired to pursue them.

In the United States, the infusion of large amounts of public funds into private financial institutions, and the concurrent restraints placed upon their governance, vividly illustrates how, over time, public and private interests co-evolve. In the weeks prior to the unraveling of Lehman Brothers in the summer of 2008, the robustness of the US financial system continued to be lauded by leaders in both the private and public sectors. Yet the sub-prime lending crisis and the associated explosion of innovations such as derived securities had become an albatross on the world economy. The United States' largest federal agencies responded with the largest government bailout in world history.

When do private-sector entrepreneurial firms challenge public interests, and when does such entrepreneurship threaten the public interest so extensively that a major re-conceptualization of critical institutions is required, such as has been currently requested by US automakers? When is the most economical response one of allowing private bankruptcy, and when does the public interest in avoiding large welfare payments such as are possible to laid-off autoworkers make a bailout desirable? The answers to these questions require an understanding of the inter-temporal economics of public entrepreneurship, with particular attention to the consequences of risk-sharing schemes and incentive compatibility (North, 2005).

The failure of public agencies, institutions and processes has long been the subject of study in the disciplines of political science and public economics. What can the fields of entrepreneurship and entrepreneurial management offer as insight regarding the current large-scale failures of public institutions such as Fannie Mae and Freddie Mac (Demyanyk & Hemet, 2008)? Many of the most salient opportunities relate to the interplay between public and private objectives in these institutions (Hillman & Hitt, 1999; Hillman, Keim & Schuler, 2004).

First, the role of these public agencies as priority-balancing bodies cannot be understated. Private entrepreneurs must constantly evaluate risks that influence the organization's prospects for survival and profitability. In public agencies, ambiguity in the objective function caused by ill-defined goals, an indirect relationship between public interest and personal benefit, and the difficulty of measuring successes and failures, makes achievement of this balance difficult. Techniques such as real-options analysis and scenario planning may prove essential for defining, managing and balancing competing public interests, and for balancing public objectives over time as the constituent goals of private parties change (Lee, Peng & Barney, 2007). The lack of clear metrics for goal achievement (such as profitable growth) and the lack of a competitive selection environment render these techniques problematic.

Second, entrepreneurs must contend with information asymmetry and uncertainty that is partly reducible (normally at a cost) and partly irreducible (Henisz & Zelner, 2003; Libecap, 1989). Mechanisms for extracting information and for evaluating and managing uncertainty of each type have been widely studied in the extant entrepreneurship literature (Dew, Read, Sarasvathy & Wiltbank, 2008; Sarasvathy, 2001). Public institutions such as Fannie Mae and Freddie Mac regularly rely on conventional models of risk assessment that are common in the insurance industries, for example, but contemporary techniques from information economics may represent further opportunities for analysis. In particular, finding ways to evaluate and rank risky options that are essentially qualitative -- because they are not embodied in market prices and quantities -- is critical to public-sector entrepreneurial decision-making.

Third, inter-temporal theories of change -- particularly in the constellations of private interests that are conflated into a public objective -- offer opportunities for advancing our understanding of institutional inertia in the public domain. Conventionally, this inertia has been viewed principally as a brake on ill-considered adaptations. Yet as the current environment reminds us, inertia may be a potent source of diseconomy under punctuated change (Baumgartner & Jones, 1991). Such inertia may be due to distorted perceptions (that may stem from myopia, hubris, denial and/or groupthink), dulled motivation, failed creative responses, action disconnects, and political deadlock (Hannan & Freeman, 1984; Janis, 1972; Rumelt, 1995).

Thus, actions in the public interest are complex in ways that the theory suggest, but also raise new questions for theory. Institutions such as the Rockefeller Foundation, Fannie Mae, Freddie Mac evolve as organizations in pursuit of the public interest, and yet also may be inadequately studied as the embodiments of governance structures and entrepreneurial systems in pursuit of the common interest. Entrepreneurs such as Bill Gates and Howard Jarvis may shape institutions to reflect private beliefs about the public interest. At the same time, the actions of both private and public organizations may be complicit in the public interest in ways that are not clearly evident: The failure of large numbers of US financial institutions during 2008 made vivid the consequences of their interdependencies for the public interest. More research is required on the processes of organizational entrepreneurship both in the fulfillment and shaping of public interest.

THE ECONOMIC THEORY OF THE STATE AND PUBLIC ENTREPRENEURSHIP

The efficient allocation and creation of resources in the public interest requires large, often multinational systems for evaluating investment opportunities and for pursuing them effectively. The market, the firm (particularly the multinational enterprise [MNE]) and the nation-state are primary institutional devices for resource allocation and creation globally. A voluminous and fast-growing research literature on markets and hierarchies, particularly their *raisons d'être*, evolution, attributes and interrelationships, represents a recognition of their importance (Mahoney, 2005). The relationship between MNEs, nation states, and international organizations such as the WTO has also received interest in recent years (Bhagwati, 2005; Hill, 2008). Yet interactions between these institutions and the governance of resources in the public interest by alternative forms of markets, firms, and nation states – i.e., *Markets, Hierarchies* and *Politics* -- have not been as fully explored.

Firm and State: Complements or Substitutes?

Institutions can be regarded as constraints on public entrepreneurs, although they can also be enabling, and public entrepreneurs can also work to shape these over time. Comparing institutions as mechanisms of resource allocation and value creation (Aguilera, Filatochev, Gospel & Jackson 2008) suggests that entrepreneurship in the public domain is subject to the same kinds of constraints as in the private sector. In economics, the market and the firm are often viewed as alternative institutions of resource allocation and creation, the first based on voluntary exchange, the second on central authority or direction. It is maintained (assuming pre-existing markets) that markets fail because of excessive market transaction costs (e.g., costs of information, bargaining, contracting, policing, and enforcing agreements), such costs being the result of the co-existence of bounded rationality, uncertainty, opportunism (self-interest seeking with guile) and asset specificity (Williamson, 1985). The firm supersedes the market by internalizing transactions (Coase, 1937) and in so doing reduces market transaction costs due to changes in ownership, more-fine grained incentives, as well as superior monitoring and auditing capabilities (Mahoney, 2005). Similar theorizing can be applied to explain the evolution, strategies and internal organization of firms as stewards of complex inter-divisional transactions (Williamson, 1996).

The MNE is explained along similar lines within transaction costs theory (Buckley & Casson, 1976; Hennart, 1982). The focus of research has been on intermediate-product-market frictions and in particular on appropriation of quasi-rents from intermediate factor markets, such as those for specific managerial skills and know-how when, for example, licensing rather than foreign direct investment (FDI) is used. In theories of the MNE, transaction costs theory co-exists (uneasily) with market power perspectives, such as Hymer's (1976) oligopolistic reaction approach and Dunning's (1980) eclectic ownership, locational and internalization (OLI) view.

Neoclassical economics also considers the state to arise as a result of market frictions. In Adam Smith's (1776) account, the state is required mainly for the provision of justice and public works. Coase (1960) and Arrow (1970) generalized the neoclassical assertion of the existence of the state as a response to market frictions, in terms of transactional failures (not structural ones due to oligopoly). This approach was extended by North (1991). Recent theorizing points to market failures arising from prisoners' dilemmas, coordination problems, distributional conflicts and asymmetric information (Kim & Mahoney, 2002; Rodrik, 2004).

Despite these developments on the existence of the state, there is little discussion in the neoclassical economics literature concerning the relationship between the firm and the state, a relationship that needs to be understood clearly if private and public entrepreneurship are to be linked. Coase (1960) briefly refers to the issue by indicating that both firm and market transactions take place within the general legal framework imposed by the state. An implication is that firms and markets (which together comprise the private sector), are complements to the state. This perspective then suggests a need for an explanation of the state in terms of private-sector failure. A corollary relates to why states do not substitute for the private sector entirely; to paraphrase Coase (1937) why isn't all production carried out in One Big "State" rather than one big firm or combination of firms and markets? An explanation can be offered in terms of government failure, which can also be generalized in terms of transaction costs (Eggertsson, 1990).

A neoclassical view in economics on the relationships between MNEs and nation states is that MNEs tend to enhance welfare by increasing global efficiencies. The mechanisms of this efficiency are transactional, but also may arise from the transfer of ownership advantages (Kindleberger, 1986), which in turn derive from technology diffusion, know-how and employment creation. A problem emerges when the power of the state is being undermined by the MNE. Vernon (1971) observed that such a struggle is possible as a result of the mobility of MNEs as compared with the immobility of the state; albeit the suggestion of "sovereignty at bay" was qualified ten years later (Vernon, 1981) in view of increasing expropriations of MNE assets by Third World countries and the increasing resistance and militancy of at least some states. Nye (1988) pointed to the possible complementarity between MNE and nation-states, each with a comparative advantage: MNEs on production, nation-states on legitimization. In instances where this complementarity arises, private- and public-sector entrepreneurial activity interacts in ways that can compound their joint efficiency (Hillman & Hitt, 1999; Ostrom, 1990). For a multitude of reasons, however, provisions of such goods are not fully sustained, and international government can be a solution here (Dunning & Pitelis, 2008).

In sum, the neoclassical economics perspective on the (MNE) firm, the nation-state and international organizations can be described as one of complementarity as well as substitutability (North, 1991). Even MNEs and nation states may be both complements and substitutes given the transaction costs that can arise within larger firms and the loss of comparative advantage suffered by some states (Demsetz, 1988; Nye, 1988). Thus, the main-stream view now accommodates the idea that the market, the MNE, and the state (national and international) can be analyzed as complementary institutions of resource allocation and value creation, with each specializing for efficiency. Further, efficiency and market power may exist simultaneously (Penrose, 1959), and efficiency by state functionaries will tend to be pursued, provided that their own interests are satisfied (Eggertsson, 1990; North, 1981). These ideas suggest an important interplay between the interests of private agents in both private firms and nation states (Evans, 1996; Ostrom, 1990).

The possibility of opportunistic (or, more mildly, utility-maximizing) behavior by public entrepreneurs (particularly state functionaries) is explicitly accounted for in public-choice and Chicago perspectives (Mueller, 2003; Posner, 1974; Stigler, 1971). One salient type of failure is "empire building" in which state functionaries increase their utility by increasing the size and span of control of their organizations. Maximization of state functionaries' utility and demands by powerful organized groups of producers and trades unions, which can capture the state, help explain its dramatic growth in OECD countries (Shapiro & Taylor, 1990). States can be captured by organized interest groups, which hinder efficient allocation of resources. Transaction costs theory suggests that such capture means that markets should be allowed to operate more freely, while the state should limit itself to the provision of stable rules of the game, for example, a clear delineation and enforcement of property rights (Alvarez & Parker, 2009; North, 1990).

North's "Neoclassical" Theory of the State: Extensions and the role of Public Entrepreneurship

North (1990) joins the transaction costs and public-choice perspectives on the state in which a wealth- or utility-maximizing ruler trades a group of services (e.g., protection, justice) for revenue, acting as a discriminating monopolist, by devising property rights for each so as to maximize state revenue, subject to the constraint of potential entry by rulers of other states. The objective is to maximize rents to the ruler and, subject to that, to reduce transaction costs in order to foster maximum output, with the maximum tax revenues accruing to the ruler. The existing competition from rivals and the transaction costs in state activities typically tend to produce inefficient property rights since efforts to mitigate rivalry usually lead to favoring powerful constituents, while transaction costs in metering, policing and collecting taxes provide incentives for states to grant monopolies. Thus, the existence of competitive rivalry and positive transaction costs gives rise to a conflict between a property rights structure that produces economic growth and one that maximizes rents appropriated by the ruler, and therefore accounts for widespread inefficient property rights (North, 1981). Indeed, North states that: "the coercive power of the state has been employed throughout most of history inimical to economic growth" (1990: 14).

There are important similarities between the public-choice and Northian (1990) views of the state and the Marxian school. Marx (1867) was among the first to contemplate a capture theory, which was considered part and parcel of capitalism's existing inequalities in production that favored capitalists over workers. Further, the capitalists' capture of the state is reinforced due to instrumental and structural reasons (Miliband, 1969; Poulantzas, 1969). The growth of the state and fiscal crises can be explained in terms of the concentration and centralization of capital, declining profit rates, and class struggle over state expenditure (O'Connor, 1973).

Beyond North: Entrepreneurship within the State

Our approach to public entrepreneurship allows a generalization of North's (1990) theory, in which the state exists because of excessive private-sector transaction and production costs, and aims to reduce them, so as to increase output and revenue for state functionaries. Increased output also helps to legitimize income inequities. A constraint on state functionaries' attempts to achieve this objective arises from the possibility of capture, which tends to generate inefficient property rights and subsequent outputs (Eggertsson, 1990). Transaction costs in metering, policing, and enforcing taxes also lead to inefficiency in terms of states granting monopolies. Moreover, high costs of governing put a limit on the ability of the state to replace the private sector, leading to a need for a plurality of institutional forms (Chang, 1994; Pitelis, 1991).

The existence of private-sector transaction and production costs by the state represents an entrepreneurial opportunity. By rearranging property rights, establishing new bureaus or other forms of organization, and effecting the forcible transfer of resources among private agents, state functionaries can generate value that can be directed toward public or (politically favored) private ends. The concept of a nationwide strategy for growth, which is the set of state policies intended to reduce private sector production and transaction costs so as to increase realized output in the form of income, can thus be framed as a form of public entrepreneurship. The Coase Theorem (Coase, 1960) suggests that the internalization of private sector activities by the state—i.e., the increase in public-sector, relative to private-sector, entrepreneurial activity—should be pursued up to the point where an additional transaction or production activity would be produced at equal cost in the private sector (Coase, 1960). The focus on this objective reinforces the concept of pluralism in institutional forms; i.e., the complementarity between public and private sectors for the efficient production and allocation of resources (Evans, 1967; Ostrom, 1990).

Besides affecting production and transaction costs, public entrepreneurs can also affect the revenue side, through requisite actions and policies. In open economies with trade, for example, growth can be achieved via domestic and foreign demand, while income-rent will be affected positively through both reductions in transaction-production costs and increases in revenues through, for example, a focus on high-return sectors and/or the creation of agglomerations (Pitelis, 2009; Porter, 1990). It follows that, in open economies, national strategy could be designed to reduce overall production and transaction costs for the economy, but could also influence the revenue side, so as to increase the income accruing to the nation and (thus) taxes to the state. In this context, state functionaries could be argued to act as political entrepreneurs (Yu, 1997). This approach also tends to endogenize the public-private nexus.

Viewing the state as a locus for public entrepreneurship thus suggests that the aim of the state is, or should be, to create value by reducing private-sector transaction and production costs through suitable actions and policies that reallocate tangible and intangible resources (in particular, property rights) and deploy them in anticipation of uncertain future gains. This normative conclusion is not backed however, by an analysis of the incentives, constraints and means through which public entrepreneurs would aim to realize this objective; in other words, the analysis must be extended to determine if this value serves a public purpose, or is simply appropriated by state officials and politically connected private agents. Providing an institutional setting in which entrepreneurial firms can appropriate at least some of these gains, to provide efficient incentives, while preserving the spillover benefits for the economy as a whole, is critical for fostering organizational innovation in the public sector (Schnellenbach, 2007).

However, the potential for destructive entrepreneurship (e.g., predatory rent-seeking) suggests that the pursuit of such opportunities must be carefully monitored, and in some cases constrained (Baumol, 1990). One such constraint is the establishment of competitive conditions in product and labor markets, which tend to reduce problems with governing costs associated, for example, with powerful (opportunistic) private sector suppliers of required state services. Competitive conditions, however, should not be limited to the private sector only, but should be extended to the market for government control, so that political positions are more contestable (albeit subject to them not becoming more capturable). This extension could provide useful sources of information on possible differences in inefficient governing and thereby would tend to reduce the costs of government.

Despite the recognition of agency, and the pursuit of self-interest by economic agents, the economics-inspired approaches, have not given attention to the ways through which public entrepreneurs can be provided with incentives and become enabled to select and implement innovations that are value creating and not value destroying or even simply re-distributional In addition the concept of Pareto efficiency is widely recognized to be of limited use in affording a selection criterion for chosen innovations. Last but not least, there is little discussion of the issue of monitoring-as the state is the authority par excellence, then who monitors the monitoring state?

It is critical, for example, to ensure that endogenous private-public interactions add system-wide value in a sustainable way. This approach requires the avoidance of regulatory capture and predatory behavior by state functionaries (Stigler, 1971). It also requires the provision of incentives, sanctions and enablement that channels public entrepreneurship towards the aforementioned goal. Rodrik (2004) suggests that to solve market failures and also avoid capture, state functionaries should be involved in dialogue with the private sector while maintaining an arms-length relationship. However, such an approach is not likely to be sufficient to avoid capture by state functionaries. For Mahoney, McGahan and Pitelis (2009), protection can be better achieved through pluralism and a diversity of institutional and organizational forms that serve the function of mutual monitoring, accountability, and stewardship. Such an institutional setting could enable private-public interactions to operate in a virtuous way and enhance the possibility of global sustainable value creation, a concept that offers many advantages over the standard economics focus on Pareto efficiency.

The concept of global sustainable value creation draws on the idea of international or *global public goods* (Kapur, 2002; Kaul, Grunberg & Stern, 1999; Stiglitz, 1999), and emphasizes not only their value creating advantages but also introduces the important proviso of *sustainability*; economic, sociopolitical and environmental (Mahoney, McGahan & Pitelis, 2009). In so doing, the concept of global sustainable value creation provides an improved criterion to Pareto efficiency and/or the focus on value creation through innovation in the "systems perspective" (Lundvall, 2007). This improvement occurs because value creation involves more than only innovation, novelty, or newness (Pitelis, 2009). The criterion of sustainability sets constraints that stave off the extensive pursuit of private appropriation, without regard to the environment, for example. A focus on global sustainable value creation affords an objective function, a benchmark and a constraint to private and political entrepreneurs, whose actions can be judged and compared in terms of their expected impact on global sustainable value creation -- not private appropriation, political benefits or even value creation alone.

The criterion of Global Sustainable Value Creation thus offers a resolution to the "politician's curse," the idea that in order to avoid regulatory capture and ensure re-election so as to do good, politicians need to also (or even first) do well for themselves. Because the criterion of global sustainable value creation imposes time consistency on policy choices, politicians are constrained against policies that foster their personal interests in the short run in exchange for ongoing influence to benefit the public in the long run. Civil society, private entrepreneurs, other political entrepreneurs and even international bodies may be deployed to evaluate the veracity of policies that satisfy this criterion. Such an institutional framework is not yet present, and clearly more research is needed here – not least in the presence of the current institutional failure.

SUMMARY AND CONCLUSION

This paper has outlined an approach to public entrepreneurship that builds on contemporary entrepreneurship theory, adding insights on the role of institutions and the nature of the modern state. While some political science and public-choice economics research has explored the nature and effects of political entrepreneurship, a systematic account of the political entrepreneur and the ways in which public-sector entrepreneurship differs from its private-sector counterpart is mostly absent from the extant research literature, particularly in strategic management and organization. We hope this paper stimulates further research on extending entrepreneurship theory to non-market settings and developing more robust explanations for the state and for private-public (e.g., firm-government) interactions. Such research should result in applied insights for the design of effective public policies and a stronger alignment between public and private objectives.

Our main argument is two-fold. First, we claim that public entrepreneurs do, in many ways, act like entrepreneurial firms, though there are important differences related to the difficulty in measuring profit, the use of complex and ill-defined objectives, the problems of collective action, and the issue of coercion. Second, we note that public and private entrepreneurship while typically treated in isolation in fact *co-evolve* in important ways (Ostrom, 1990). Indeed, the modern state contains elements of both private and public entrepreneurial behavior.

Clearly, much more remains to be done. For instance, the current paper has not addressed the exact nature of the entrepreneurial function (adaptation, opportunity discovery, uncertainty-bearing, innovation, or various combinations of these). We have also avoided the "occupational" and "structural" approaches common to the applied entrepreneurship literature (Klein, 2008), which do not map readily into non-market settings. It may be useful to evaluate these functions independently. We also suggest that future research focus on specific aspects of opportunity exploitation, such as the assembly of heterogeneous human and alienable assets, the design of appropriate organizational structures (firms, bureaus, contractual mechanisms), and the use of feedback in the revision of entrepreneurial plans.

Theories of public entrepreneurship are essentially theories of group or collective entrepreneurship, and concepts of collective action should figure prominently in any account of public entrepreneurship. However, research literature on collective entrepreneurship is at a nascent stage of development (Burress & Cook, 2009). We suggest a theory of public entrepreneurship as an important application of group or team problems in an entrepreneurial setting, and look forward to exploring these connections as we in the management field develop a research stream in public entrepreneurship that enriches both theory and practice. Indeed, firm-government interactions are where much of the action of contemporary exchange resides, and thus, moving towards a more well-developed theory of public entrepreneurship will increase both the theoretical rigor and practical relevance of our management discipline.

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Table 1: Concepts of Entrepreneurship, Private and Public

Concept of Entrepreneurship	Manifestation in Private Entrepreneurship	Examples of Application to Public Entrepreneurship	Issues and Problems	References
Entrepreneurship as a type of firm				
Start-up firms (Acs & Audretsch, 1990)	• Strategy literature on new and high-growth firm structure and performance • Finance literature on venture capital	• New and high-growth public agencies • Creation of new governmental functions and agencies • Generation of novel norms, customs and policies that facilitate private action • Asserting a dominant model or template for accomplishment in the public interest	• Difficulty in measuring ROI • Identifying the public interest • Discerning publicly accepted norms, customs and policies • Competing to establish the legitimacy of a new approach	Acs & Audretsch, 2003; Agarwal, Echambadi, Franco & Sarkar, 2004; Brander, Amit & Antweiler, 2002; Gaba & Meyer, 2008; Ganco & Agarwal, 2009; Park, Chen & Gallagher, 2002; Pinar & Eisenhardt, 2009
Entrepreneurship as an economic function				
Alertness to profit opportunities (Kirzner, 1973)	• Management literature on opportunity recognition • Austrian economics literature on market equilibration	• Sensing shifts in public interests • Anticipating common problems • Identifying out-of-date practices, agencies, and other institutions • Avoiding undesirable outcomes in the public interest	• Lack of market prices, difficulty in measuring profit • Complex, hard-to-specify objectives • Misalignment of interests between decision-makers and the general public; likelihood of rent-seeking • Pursuit of valuable opportunities may be constrained by bureaucratic procedure • Exchanges based on coercion, not consent • Identifying and managing uncertain outcomes	Bellone & Goerl, 1992; Holcombe, 1992; Jacobson, 1992; Kirzner, 1997; McMullen & Shepherd, 2006; Schuler, Rehbein & Cramer, 2002; Shane & Venkatraman, 2000

Innovation (introduction of new goods, markets, production methods, organizational practices) (Schumpeter, 1934)	• Economics and management literatures on product and process innovation	• Introduction of new policy proposals, political positions, or paradigms • Introduction of new procedures (e.g., the local ballot initiative) • Competing to establish orders of worth	• Decision-makers don't put their own assets at risk • Political actors may have very short time horizons • Bureaucratic organization is highly path dependent • Identifying tradeoffs between short- and long-run interests	Bartlett & Dibben, 2002; Kirchheimer, 1989; Mack, Green & Vedlitz, 2008; Oliver & Holzinger, 2008; Schneider and Teske, 1992; Schneider, Teske & Mintrom, 1995; Schnellenbach, 2007; Wohlgemuth, 2000
Judgmental decision-making under uncertainty (Knight, 1921)	• Economics and finance literatures on investment and capital budgeting • Management literature on judgment-based entrepreneurship	• Investment of public resources to meet political objectives • Evaluating the suitability of various policies for achieving particular outcomes • Identifying gamesmanship nominally in pursuit of public interests but truly in private interests	• Decision-makers don't put their own assets at risk • Political actors may have very short time horizons • Discernment of coalition-building from the pursuit of private interests	Foss & Klein, 2005; Foss, Klein, Kor & Mahoney, 2008; Kor, Mahoney & Michael, 2007; Langlois, 2007; McMullen & Shepherd, 2006; Mises, 1944; Penrose, 1959; Ostrom, 1965, 1990
Creation or definition of property rights (Ostrom, 1990; North, 1990)	• Strategy literature on intellectual property • Transaction cost economics	• Changing administrative or electoral procedures • Lobbying and other forms of rent-seeking • Cultivating and developing public debate to resolve controversy over objectives, goals and interest alignment • Resolving questions about the alignment of public and private interests	• Political action based on coercion, not consent • Establishing regulatory and other systems in the public interest to avoid private capture • Identifying the terms and contexts for public debate • Ascertaining public property, particularly in knowledge capital and intellectual property • Identifying the values attributed to various outcomes and public tolerance for uncertainty in the fulfillment of public goals	Alvarez & Parker, 2009; Gerard & Prabhu, 2000; Kaplan & Murray, 2009; Morris & Jones, 1999; Ostrom, 2005; Pitelis & Teece, 2009; Spencer, Murtha & Lenway, 2005; Spicer, McDermott & Kogut, 2000; Spiller, 1990; North 1991, 2005

Note: some "issues and problems" above apply to all these conceptualizations of public entrepreneurship, including (1) the difficulty in measuring profit, given the absence of market prices; (2) the use of objective functions that are complex and ill-specified;(3) collective-action problems (which affect all forms of team or group entrepreneurship, public or private); and (4) the fact that political investment and exchange are be based on coercion, not consent.