

Public Sector Innovation Theory Revisited¹

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ABSTRACT

The purpose of this paper is to inquire into the state of public sector innovation (PSI) theory. Four authors, Rogers, Borins, Behn, and Glor and recent comparative governmental practices are chosen to represent a variety of approaches. This sample allows identification of both areas of consensus and of controversy in the field. Important disagreements remain about the defining parameters of PSI study and about the basic questions PSI studies should address.

Keywords: public service innovation, theory, concepts, problems.

Introduction

Innovation is a prime subject in our time. In business and government, it is held to be essential in the face of the massive and complex problems and the rapid pace of change in contemporary society. Innovation is thought to be the way to harness the creative potential of the human race in order to survive, to progress, and to prosper. A letter in the Montréal newspaper *Le Devoir* (26 April 2013) noted that the Latin and Greek words for stupidity referred to immobility, lethargy or inertia, so we might infer that the opposite of stupidity would be mobility, energy, adaptation.

Public sector innovation (PSI) is a subset of all innovation. A Google search in July 2013, found references to 316 million publications, of which PSI constituted 4,4 million, or about 1.4 per cent of the whole, a small part, but a big absolute number. In the final edition of his masterwork on the diffusion of innovations, Rogers (2003: 45-46) identified nine disciplinary fields producing the greatest number of studies, of which “marketing and management” accounted for 16 per cent. This group did not appear to cover the public sector, but some of the others include subjects like city managers, public health and education. Publications on PSI thus appears rather marginal to the field of innovation studies.

Having written a book on the diffusion of administrative innovations among Canadian governments twenty years ago (Gow, 1994), I was curious to learn how the field had evolved since then. I wanted to see how the subject itself had changed, what are the main theoretical approaches and what the outstanding unresolved issues. What follows is not a primer on all the contemporary theories of PSI. Instead, I have chosen five theorists and approaches in order to see what unites and what divides them. In part

one, these authors and schools are presented briefly. In the second part, the contentious issues are examined with a view to exploring their potential for asking good questions.

What to expect of a theory

The very first step in considering this subject is to enquire what we mean by theory. The root meaning is not controversial: the *Shorter Oxford Dictionary* gives, among others, one that fits our case, “A scheme or system of ideas or statements held as an explanation of a group of facts or phenomena”. The operative word is “explanation”; the familiar expression “descriptive theory” is an oxymoron.

Theories use concepts to organize raw material into variables, abstract categories concerning causal variables (independent) and outcome variables (dependent). The common distinction is between deductive and inductive theories. In deductive theory, the hypotheses to be tested are drawn from postulates and principles that are held to be true while inductive theory builds up hypotheses from observation and adjusts them as experience dictates. Most social science is inductive, but there are important theoretical schools that are deductive. Both Marxism and Public Choice theories start from first principles and deduce their hypotheses. The theory of the class struggle, for example, made it very difficult for the leaders of the Communist countries to accept that working class protests against their governments could be genuine.

Glor (2008: 3) recalls the advantages of inductive theory, since it is constantly adjusting itself to take account of new evidence. She also makes a distinction between substantive and formal theory. In her view, substantive theory relates to a substantive or empirical area, whereas formal theory is built on a formal or conceptual area. To her, substantive theory may be used to develop formal theory. Thus she considers that innovation theory is substantive, whereas organization theory is formal. This language is apparently used because she prefers to think of innovation theory as a more exploratory area, while formal theory is more abstract and parsimonious.

The more sticky question is that of prediction. Glor (2008: 4) states that a test of a theory may be its capacity to predict on the basis of a correct understanding of cause and effect. Moreover, Kahneman (2011) has shown with devastating effect that the predictions of experts in finance, investment, psychology and education are mostly no better than rolling dice. Their expertise, he found, could deliver protocols or algorithms which were very useful when combined with base line statistics, but did not constitute precise predictions in themselves. He found that “our insatiable desire for narrative” leads to “the illusion of understanding” and an overestimation of the orderliness of things. Taleb (2007) has a similar complaint about inductive theories: they do not prepare for “Black Swans” or extremely unlikely events.

In the present case, Wildavsky (1979: 139) has the last word: “The trouble with social interaction is that you don’t know how it will turn out in advance”. A further obstacle was identified by a biologist cited with approval by Wildavsky (1979: 58): “the difficulty in most scientific work lies in framing the questions rather than in

finding the answers”. A reading of recent developments in public sector innovation theory, suggests that such difficulties plague the field. From the definition onwards, it seems difficult to know what are the right questions in public sector innovation theory.

Key Authors and Approaches to PSI

Everett M. Rogers

The first of our authors is the late Everett M. Rogers, often considered the dean of contemporary innovation studies. His book *Diffusion of Innovations* ran to five editions, from 1971 to 2003. A professor of communications, Rogers dealt relatively little with invention, and concentrated instead on the process of diffusion of innovations of all kinds, scientific, technical, social, managerial and so on. One of his major contributions was to conduct a continuing meta-analysis of diffusion studies, from one edition to the next. For several editions, this allowed him to give a running score of support for and failure to support generalizations about which individuals were most likely to be innovative, their communication behaviour, characteristics of adopted innovations and of the social systems supporting them.²

From one edition to another, Rogers presented generalizations about personal and organizational variables that are independent variables explaining rates of innovation in organizations. Personal and social variables making a positive contribution to innovation rates were education, socioeconomic status, cosmopolitan personalities, capable of abstraction, and empathy and open to change. Age was not a relevant variable. Organizations more likely to innovate were large, complex, with good interpersonal communications and unused resources (‘slack’). Centralization and formalism were obstacles to innovation. For example, in the third edition (Rogers, 1983: 260-261), he noted that 74% of the studies surveyed confirmed the positive relation between education achievement and innovation; for cosmopolitan personalities, the number was 76%, while for larger size units, it was 67 per cent. The characteristics of the innovations themselves constituted another category of explanatory variables, such qualities as cost, compatibility, complexity and trialability.

Rogers presented the rate of adoption of innovations as a bell curve, with early, middle and late adopters; he also developed an S-curve to track the cumulative rate of adoption. So his method was inductive, his reasoning was based on his own and others’ observations. Rogers acknowledged a number of shortcomings in the approach he had developed: the main one was that the search for determinants had given inconsistent results (Downs and Mohr, 1976; Mohr, 1978; Rogers and Eveland, 1978) argued that it was wrong to oppose personal and organizational variables, since they interacted. Indeed all of the independent variables interacted, so that diffusion research was complex. By the time of his final edition (Rogers, 2003: 106) Rogers felt that innovation research suffered

²In the fifth edition (2003), Rogers abandoned the practice of listing raw scores and percentages of studies confirming or refuting these proportions, simply listing « generalizations » that were relevant (chapters 5 and 7).

from a pro-innovation bias, probably because of the bias of funding agencies. This situation led to a search for wider and faster solutions and willful ignorance about gaps in knowledge and about anti-diffusion programs against bad innovations.

My 1994 book was inspired by the Rogers approach. I was interested in the diffusion of innovations as cases of communication. How did ideas like the Planning-Programming-Budgeting System (PPBS), the Ombudsman, privatization of public corporations or program evaluation circulate and become adopted? I chose fifteen such cases from the years 1960 to 1990, and set out to see in what order the Canadian federal government and the provinces adopted them. Large governments were found to be the most innovative and each innovative idea was adapted to the needs of the adopting government. In the process of adaptation and adoption, central agencies had the last word. Patterns varied considerably: Ontario was among the early adopters, but was more spontaneous, less inclined than the others in this category to proceed after long preparatory studies; Quebec was often in the first three adopters, but never the first (a trait that contradicted much casual analysis).

Sandford Borins

In the late 1990s Sandford Borins took a new tack in PSI work by doing a rigorous study of a complete population: he surveyed all the semi-finalists in the Ford Foundation's innovation awards competition in the United States for the years 1990-1994 (Borins, 1998). He then compared these results with those obtained in two similar competitions organized by the Commonwealth Association for Public Administration and Management (CAPAM) (Borins, 2001). In this way, he had a stock of material available for statistical analysis.

Borins found a number of results that went counter to the current wisdom on PSI. The subtitle of his 1998 book was "How Local Heroes Are Transforming American Government". Contrary to the idea that most innovations are imposed on a reluctant bureaucracy, he found that half of the American innovations came from middle managers and frontline employees, and over 80% of those in the CAPAM competitions. Politicians were originators of about one-fifth of the American group, but only about 10% of the Commonwealth group. Agency heads were the originators of 25% of the US group and 39% of the Commonwealth one (Borins, 2001: 27). Managers were unlikely to propose changes in organization; these came from political leaders or boards of directors.

As opposed to the "managing by groping along" approach, Borins found that one-half of American innovations were the result of policy planning and that the majority of both samples used a systems or holistic approach. His conclusion was, "Integrity in innovation demands that one plan when it is desirable and possible to plan, but when it is not possible to plan, one experiments and learns from one's experiments" (Borins, 1998: 64). Planning was thought to be desirable in cases of large capital projects, involving partnerships or the coordination of many players. Innovations drawn from theory were in evidence in both social services and education. There was general agreement that

successful innovations require measurable goals and regular monitoring of results. Outside evaluation was more likely to lead to replication of innovations.

Borins found that half of the obstacles to innovation came from within the organization. They were not primarily based on self-interest (union opposition was really negligible) but came mainly from philosophical objections and were amenable to both accommodation and persuasion.

So Borins produced studies that covered complete populations of given groups and were amenable to theory-testing (Loffler, 2001), much of the theory drawn from Osborne and Gaebler's *Reinventing Government* (1992). It had some weaknesses also: by the terms of the Ford Foundation program, no federal innovations were included; the group was self-selected and necessarily told us nothing about failures or about cases where new political department or agency heads put a stop to innovations already under way. Moreover, as Loffler (2001: 112) wrote, "local heroes may innovate with (ethical) integrity but not necessarily with (political) legitimacy".

However, these objections do not detract from the overall value of these innovative studies. Borins' work has to be considered in any discussion of PSI theory.

Robert Behn

Robert Behn has been writing about innovation for more than twenty-five years. He is presented here after the others because he is PSI's skeptic and iconoclast. His early and much remarked article "Managing by Groping Along" (Behn, 1988), took aim at rational planning models of innovation. He claimed that managers do not know enough about the knowledge, customs and preferences of their clients and employees to proceed in a rational manner. His model differed from Lindblom's "muddling through" and Peters and Waterman's "managing by walking around" because "groping along" was neither a method of policy analysis nor was it aimless wandering about. Behn wrote that what successful managers do is choose an ultimate goal and proceed by trial and error to reach it. They do so by choosing intermediate goals to be achieved and they use a wide variety of managerial tools along the way. In this way his model resembles the New Public Governance model of Jocelyn Bourgon, who proposes using case studies to widen the range of possibilities open to managers, rather than as models to be strictly imitated (Bourgon, 2011).

In a recent text, Behn (2008) adds to this model the idea that much of the knowledge needed to innovate cannot be written down, it is tacit. He cites the work of O'Dell and Grayson (1998), who claim that in all but the simplest cases, the most important information cannot be codified or written down. Their postulates for successful innovation include face-to-face contact from the beginning of a project, acceptance that a project will never be a one-time operation, but instead will need many steps and much attention along the way. As a result, Behn cautions that there must be "no unthinking mimicry", but instead adaptation to the point of "reinventing the wheel" (156). Behn's

model places a premium on leadership, since it depends on the leader to develop the vision of his or hers organization's mission and lead by groping along (Behn, 1988).

Although it is not his most recent publication, Behn's overview of the contents of a book he and Alan Altschuler edited in 1997, gives a masterful résumé of the difficulties facing theorists of PSI entitled "The Dilemmas of Innovation in American Government" (Behn, 1997). Of the sixteen dilemmas he identified, the most important for this text are: the accountability dilemma, posed by proposing to allow midlevel and frontline managers to engage in political work like coalition building, partnering, co-developing policies etc.; the failure dilemma, "The dirty little secret is that innovation requires failure" (15), which will be seized upon by the opposition and the media. Behn adds, "Like all true dilemmas, there is no way out"; the dilemmas of scale and decentralization; that of the priority to be given to action or to analysis; the question whether to repair an ailing organization or replace it; that of extrinsic (material) or intrinsic (personal satisfaction) rewards., which Behn regards as possibly the biggest challenge of all.

As we have seen, Borins' work challenges Behn's "managing by groping along" model. However, the list of paradoxes we have just touched on provides us with a number of controversies we will have to deal with in the following section.

Eleanor Glor

The fourth author retained is the founder and editor of *The Innovation Journal: The Public Sector Innovation Journal*, Eleanor Glor. In a series of articles since 2001, she has examined the epistemological bases of PSI theory (Glor, 2001a, 2001b, 2008). She shows how innovation studies can be seen as part of organization theory, management science, social learning and systems analysis, to which we might add administrative reform. By taking a broader view of the subject, she has developed an inclusive theoretical approach that attempts to situate more detailed studies in its framework.

Glor chooses what she calls a grounded and substantive approach, which I take to be inductive theory, built on experience and literature, and progressively tested and modified. She does not want a priori theory to limit her research: "Others' theories and experience are of interest but should not be allowed to stifle insights generated by qualitative data" (Glor, 2008: 3).

For the purposes of this commentary, I can only produce the barest sketch of a far-ranging theoretical reflection. In Glor's system, there are three clusters of drivers or independent variables. The first of these deals with the motivation of individual members of an organization. The two well-known classes of motivation are retained: extrinsic, which are "arbitrary goals and rewards" coming from outside the individual, and intrinsic, which are self-determined, and relate to the interest of the work, the desire to participate in its orientation and personal ethics (Glor, 2001a). The second cluster treats the organization and its culture, which is described as top-down or bottom-up.

The third cluster of influences or variables is called “challenge”; it conflates the characteristics or attributes of the innovation itself, the strategies for its introduction (incremental or more global), the degree of change introduced and the degree of power necessary to achieve it. For purposes of further testing, this variable is characterized as either minor or major (Glor, 2001b). Major challenges occur when risks are high, compatibility with existing values is low, a high degree of personal commitment is required, there is low relative advantage in the innovation and it is difficult to test. A minor challenge is the contrary of these properties and produces no big change in power relations in the organization.

The combination of these clusters leads to the identification of eight patterns of innovation that are presented in an ingenious three-dimensional model (Glor, 2001b). The eight patterns are called: reactive, active, necessary, imposed, proactive, buy-in, transformational, and continuous innovation. Glor (2001b) tested these categories on Canadian examples and found them useful. She considers that they may enable executives to identify anomalies and opportunities for intervention.

Glor wants theory to evaluate an organization’s capacity for adaptation and survival (Glor, 2008). This “capacity for fitness” is to be found in organizational adaptability (variety, reactivity, and self-organized emergence), its capacity to communicate through feedback loops, and the magnitude of the challenge. Glor writes that resilience or fitness depends on the level of innovation activity: level 1 deals with activities, level 2 with structure and level 3 with goals and identity. Fitness is judged to be greater if an organization can meet second or third levels of difficulty.

Much of the critical discussion of this approach must wait for part two, but some comments may be made here. While the innovation patterns have been chosen by rigorous combination of the three clusters of variables, the choice of names for them leaves one perplexed. What is the difference between necessary, imposed, and reactive innovations? What about combinations, as in the case of the man at Agriculture Canada who, upon learning that his job was soon to be cut, took the initiative to develop a public-private-partnership database for the Canadian government? It is classified as proactive, but there is an element of imposed change here also. What distinguishes reactive and necessary, active and proactive? At the least the number of choices that are to be made raises problems of instability of the classification.

Another problem comes from the complex nature of the “challenge” category, which has four distinct components: the attribute of the innovation itself, the strategies of innovation used, the degree of change involved and the use of power. Moreover, it turns out to be something that you learn after the fact: “Magnitude of challenge is identified by the magnitude of the change required of the organization...” (Glor, 2008: 12). This seems to raise serious problems for the predictive capacity of the theory. The author’s great merit, however, is to have systematized PSI theory and to have formulated propositions in ways that will allow testing and improving over time.

New Comparative Measurement Approach

In the past decade, Commonwealth and European governments have embarked on a new process based on the idea that effective measurement or monitoring of PSI in all public sectors will “allow for continuous improvement and international benchmarking” (Australia, 2011: 3). Governments in these countries, plus South Korea and the Organization for Economic Cooperation and Development (OECD), have been developing methodological frameworks for producing national indices of innovation and productivity. The OECD has published “The Oslo Manual” containing guidelines for collecting and interpreting national innovation data (OECD, 2005). In the United Kingdom, the National Audit Office did a survey of central departments and agencies in 2005 (National Audit Office, 2006), while the National Endowment for Science, Technology and the Arts (NESTA) did the same for the health and local government sectors in 2013 (Hughes, Moore and Kataria, 2013). The Australian study also cites a study by the European Community called the Innobarometer which surveyed 5000 public sector bodies in public administration, higher education, local government and hospitals across the twenty-seven member states (European Commission, 2011). All of these studies indicate much activity in this field and support the idea that regular monitoring can identify trends and anomalies, which will produce occasions for PSI.

The results already of these preliminary surveys differed somewhat from those we have seen so far. The EU study found that new laws and regulations were the single most important driver of innovation, followed by budget cuts. Such a response begs the question of where the new laws and regulations came from. The leading innovators were large national institutions. State institutions were just as likely to introduce innovations as independent decentralized ones. While managers cited lack of funding as an important obstacle to innovation, the survey results did not confirm this.

In the United Kingdom, the NAO study reported in 2006, found that the largest number of innovations involved agencies joining up to improve service delivery, the second largest to improve service delivery and the third to improve services for clients. In this self-selected sample, senior managers were by far the most numerous originators of the innovations, followed by other organizations and central agencies and ministers. The most important barriers to innovation were said to be working with stakeholders and private contractors. This audit study cited the complaint of one public servant who said, “Anyone who has worked in [my department] will say that we are all absolutely change weary and that the department in relation to the [lower tier public sector organizations] has done nothing but press changes (and some would call it innovation, I suppose) relentlessly” (NAO, 2006: 12).

In the NESTA survey of local and public health institutions (Hughes, Moore and Kataria, 2013), the main incentive was found to be customer satisfaction, but the largest impacts were efficiency and cost savings. A majority of new ideas came from outside the organization, with best practice information being the largest single source. The people who found this information were frontline staff and managers, followed closely by

service users. The accent was on short-term improvements: restructuring was said to hinder innovation.

All these surveys found most innovations to be of the kind Borins found, improvements at the procedural level, dealing with efficiency, cost savings and better customer service. Surveys of national departments and agencies tended to find centralized sources of innovation, but when the NESTA study dealt with local government and health questions, frontline employees were slightly more likely than managers to be the originators of innovations, by way of their knowledge of best practices elsewhere.

Using mostly these five theories or approaches, I turn now to what are the outstanding unresolved differences in the field of PSI theory.

Controversial questions in PSI theory

It seems to me to be more useful to look at the most controversial or litigious questions in PSI theory making than to dwell on some of the big questions that it has dealt with. While there is no doubt more to be learned about them, I do not find much division either in the question of which people are more innovative or that of what are the characteristics of successful innovations. There does not appear to be much change in the individual characteristics of innovative people: they are highly educated, intelligent, lacking in dogmatism, empathetic, capable of thinking in the abstract and cosmopolitan. Counterintuitively, age is not related to capacity to innovate. (Rogers, 2003: 288-291).

There does not seem to be controversy about the steps involved in innovation and diffusion. Here again, we may take those identified by Rogers (Rogers, 2003: 16): knowledge, persuasion, decision, implementation and confirmation or evaluation. Also, the characteristics of successful innovations do not seem to have changed over the years. As Rogers (2003:15-16) described them, they are: relative advantage (in terms of costs and benefits), compatibility with existing technologies and practices, “trialability” and ease with which they may be communicated to others. Behn (2008: 88) adds that the greater is the tacit dimension of an innovation, the greater is the need for face-to-face contact in promoting it.

Definition of Innovation

It is the most surprising lesson to learn on returning to PSI theory after twenty years, that there are major disagreements about the precise nature of the subject. I have long worked with the definition of Merritt and Merritt (1985: 11) that an innovation is “the introduction of a new idea, method or device” into a social unit. The change being introduced need only be new for the adopting unit, it may already have been in use elsewhere. This led Rogers and Kim (1985: 103) to distinguish between, “invention...the process by which a new idea is created or developed, (and) innovation...the process of adopting an existing idea”.

This still seems a sensible distinction. The creativity quotient of invention is much higher than in innovation, where we may speak of early and late adopters, and where communication skills are more important than in the case of invention. At any rate, most of the innovation that occurs comes through diffusion, although there seems always to be an element of true creation or reinvention (Behn, 2008: 155-156) in the adoption of an innovation.

One thing that has happened in recent times is that the reference group has expanded. In public sector innovation in North America, the reference group has usually been similar organizations in one's own country. The Ford Foundation's criteria have limited the reference group to state and local governments in the United States. In her work on Saskatchewan, Glor, perhaps reflecting an Anglo-Canadian conditioning, limited her population to the first, second or third time a new policy, program or process was introduced in a government in North America (Glor, 2008: 7). As we may see from the report of the Australian government (2013), their reference group includes the European Community, The Organization for Economic Cooperation and Development, Scandinavian countries, South Korea, and the United Kingdom.

What this development suggests is that larger numbers of cases are going to be involved in comparisons and that the study of replication and diffusion will be on shakier ground. The plea of both Borins and Behn, despite their differences of view on planning or groping along, would seem to be to concentrate on your organization's need rather than to try to fit into some popular trend. It is interesting to note that, as decades of reform roll past, there is a general refusal to consider the undoing of past innovations as innovative (OECD, 2005). Deregulation and privatization of public enterprises may have seemed innovative to the governments of the 1970s and 1980s, but it is rare to find a study of innovations that would include them. It may be that the broader notion of reform is needed to include planned change that is not the adoption of a new idea, method or device, but the abandonment of a previous innovation no longer deemed desirable.

The most disturbing thing about the search for the proper definition of an innovation is the disagreement about how big or disturbing an innovation must be to be taken seriously. Behn (1997: 7) cites approvingly Lawrence Lynn (1999) who wrote; "Innovation must not be simply another word for change or for improvement, or even for doing something new lest almost anything qualify as innovation". Behn argues that, to be considered as an innovation, a change must be an original, disruptive, and fundamental transformation of an organization's core tasks". Even Borins, whose Ford Foundation group would seem to include many innovations that were neither fundamental nor disruptive, said that innovation, by definition, is controversial (Borins, 1998: 79).

Now it is understandable that analysts do not wish to be distracted by myriads of small, insignificant changes. However, this attitude seems to reflect a bias for big, heroic changes. One of Behn's dilemmas is the Scale Dilemma (1997: 19). The problem is, in Behn's view, that many small changes may not change mental paradigms. Indeed, perpetual innovation may "intensify the very practices that create high costs and low access in the first place". Such an approach reinforces the view of newly elected

governments that some big, sweeping change is needed to make the administration more responsive, or less costly, or less intrusive in the lives of people and businesses.

It seems absurd to me to reject repeated acts of lesser innovation in the name of some larger cause. The taste for sweeping reforms has left public servants in Canada, the United States and Britain exhausted and demoralized. Obviously, senior managers must beware of self-serving minor improvements. But there is surely a case to be made that continuous improvement is a radical way to achieve important changes (Glor, 2001b: tables 1 and 4). Moreover, large scale, ambitious reforms have more serious consequences if they fail, not the least being increased cynicism among the public, the media and the political class.

It seems, therefore, that a large variety of innovations should be eligible for study. Obviously, some judgement must be made about which of them are significant, but I must reject the desire to retain only the fundamental transformations.

Approaches to innovation

Rusaw (2007, cited by Kuipers et al., 2013) identified four different approaches to innovation in the public sector: first, rational, top-down, planned change; second, incremental decentralized change, with emphasis on results; third, pluralistic, involving many models and actors, necessary and useful for complex problems; and finally, individualistic learning. The main controversy seems to be between what Kuipers (2013: 23) calls the heroic model based on strong leadership, and a less popular systematic decentralized, model, represented by Borins, and Rusaw). A second cleavage occurs between those who believe that successful innovation can only be done by “groping along” to use Behn’s phrase (including Bourgon and Paquet in Canada) and those, like Borins and several contemporary governments, who emphasize systematic measurement and planning.

This is one of those paradoxes that Behn (1997) identified. Borins is no doubt right that bottom-up innovations are more numerous than top-down central ones, but this requires important qualifiers. Most of the bottom-up innovations that he identified were managerial, coming in the wave of New Public Management reforms inspired by Osborne and Gaebler’s 1992 book, *Reinventing Government*, and dealing with efficiency, savings and service to clients (Hughes et al., 2013: 13-14). On the other hand, the European Innobarometer found that the single most important driver of innovation was reported to be changes in legislation and regulations and budget restrictions (European Commission, 2011). They also found that larger, central organizations were more likely to innovate and that state organizations were just as likely to innovate as decentralized public sector institutions.

It would seem then that lower level innovators, Borins’ “local heroes”, should be encouraged, that their creativity is clearly needed in times of financial difficulties and public impatience with poor or inadequate service. The governments engaged in the new trend to measurement of PSI would agree.

However, although continuous improvement is an important and practical goal, it is not the whole story. Borins recognizes (1998: 84) that it is unlikely that managers will make the first move, when it comes to organizational change. Such changes were more likely to come from political leadership or from management boards. Similarly, Rogers (cited by Glor, 2001b) wrote that elites will screen out innovations that threaten the status quo. Moreover, we noted that several authors did not consider more modest kinds of change to be real innovation. The kinds of innovations that get tracked as “administrative reforms” are not often going to be initiated from below: budget systems like the Planning Programming and Budgeting System (PPBS), and other reforms like the Ombudsman, Access to Information, Equal Opportunity, reorganization, rules about whistleblowing, and deregulation.

So these are also important major innovations that have their place. Perhaps here the need is not to proceed at too rapid a pace with too many sweeping reforms or innovations that leave public servants exhausted and the public cynical about the capacity of the state to change. The last word goes to Borins (1998: 64): “Integrity demands that one plan when it is desirable and possible to plan, but when it is not possible to plan, one experiments and learns from one’s experiments”. It is a judgement call.

Further complications may be found to affect the argument about the relative merits of top-down or bottom-up innovation. Lynn (1997: 94) points out that there may be different priorities for different stages of the process; decentralization may be better for initiating a reform than for implementing it. The rate of adoption may be different from its scope. Kraemer and King (1984) found that in OECD countries policies favouring the use of computers in local government, led to greater use than in the United States, but that American cities that adopted computers made much more advanced and extensive use of them. Also, in the case of reorganization of state governments, Garnett (1980) found that the presence of a national consulting organization led to a more comprehensive plan but a lower probability of adoption. Once again, it does not seem possible to choose one format over the other all the time, but it does seem likely that there will be more peripheral and bottom-up reforms than centralized ones and that they will be better adapted to local needs, at least those of local public servants.

Results and outcomes

Everyone agrees that a successful innovation must meet measurable goals. Borins (1998: 119) found that having a formal evaluation increased chances of replication in the Ford Foundation competition. He also noted a number of positive side effects of successful innovations, such as empowerment, and education. In the Innobarometer Survey (European Commission, 2011), the 5000 responding organizations in 27 states reported rare negative effects. On the other hand, Kuipers et al. (2013) in their survey of a decade of literature on PSI, found that not all effects of planned change are reported.

In her recent *A New Synthesis of Public Administration*, Jocelyne Bourgon (2011: 38) proposes that as well as the intended policy results, PSI studies must consider the

civic results that follow. These are the effects of innovations on citizenship, social capital and the quality of democratic life in a community. She acknowledges that this is another task calling on administrators to find balance: “Public administrators must mediate between better public policy results and a drive for efficiency gains in the short term with the need to achieve better civic results to build the capacity to achieve better public results over time”. Unless these results are included in the measurement of specific goals, we can surmise that they will come a distant second to effectiveness and efficiency results.

A particular kind of result concerns us here. Glor, in her study of PSI theory (Glor 2008) would like to be able to predict the “fitness” of an organization to adapt and to survive. Fitness would be found in two qualities, adaptiveness and communications. Adaptiveness “requires sufficient variety, reactivity and self-organized emergence”; the capacity to communicate includes being organized to receive feedback from both the internal and external environments. Fitness also needs to take into account the magnitude of the challenge facing the organization.

The problem with this is, as Glor acknowledges (2008: 10), that the ultimate test of fitness is survival over time. There is the well-known case that many of the “exemplary” companies identified by Peters and Waterman in *In Search of Excellence* (1982) were in difficulty of few years later (Wikipedia, 2013). More fundamentally, paleontologist Stephen J. Gould, to whom Glor refers, calls this search “the classic error of circular reasoning...Survival is the phenomenon to be observed” (Gould, 1989: 236). In his reinterpretation of evolution, Gould claims that all the evidence gathered about the creatures whose fossils were found in the Burgess Shale shows that, despite their decimation, they were “adequately specialized and eminently capable” of survival (239). These two examples suggest how difficult it is to find the parameters for the study of survival. To these, we might add the most extreme cases of organizational reform when their boundaries or their identity disappear in the process.

Accountability

Two major problems occur when we consider accountability and PSI. First, innovation by public servants creates a challenge to representative government. As Altschuler (1997: 40) put it, “Society can scarcely have civil servants adjusting the criteria for welfare eligibility case by case or determining what procedures to employ in arraigning criminal suspects”. This problem is not limited to innovation, but it seems certain to occur as governance arrangements link more partners to the public decision-making process.

The second problem is linked with the first. For all those who believe in learning by doing, or groping around, a huge difficulty is identified by Behn (1997:15): “innovation requires failure...and...even the smallest mistake in the public sector can be magnified into a major embarrassment or even a sensational scandal...”.

There are partial answers, such as moving ahead with projects that do not require political or top-level support, and forging alliances with client and other groups, but if the elected officials are against, for reasons of philosophy or ideology, or if the experiment is caught up in partisan debate, it is unlikely to be judged on its merits as a learning experience. Behn's preference for a "compact of mutual, collective responsibility", organized about performance contracts (Behn, 2001: 126) only partially meets the need for some enforceable responsibility of the periphery to the centre, at least in parliamentary systems, and it requires a level of trust and responsibility that we do not often see these days.

Creativity

Not much of the literature deals with the creativity dimension of invention or of adaptation of an existing idea, yet it is clear that it is a distinct process from diffusion, persuasion and implementation. The new emphasis of governments and international organizations on measuring and codifying innovations surely does not include this stage. By keeping score, one may be able to identify areas that need attention, but not to come up with new solutions to the problems identified.

Creativity means breaking away from existing rules, practices or concepts, or crossing or mixing two or more elements not customarily linked. Arthur Koestler (1970) found this to be equally true in art, science and humour. The process of seeking such new ideas is not the same as that for analysis and it is a well-established practice now to separate the stage of creativity, or brain-storming, from the subsequent stage of analysis, because analytical thinking may prematurely stifle creative thinking (Agor, 1984, 1985, 1989). In the case of Borins' study of Ford Foundation contestants, the illuminating idea was the New Public Management drawing its inspiration from business methods applied to the public sector (Borins, 1998). In the British case, the most important sources of new ideas reported to the NESTA study were best practices known to employees (Hughes et al., 2013: 16). The National Performance Review of Vice President Gore counted on new ideas being generated by boundary-crossing partnerships (National Performance Review, 1993). One of the reasons that cosmopolitans are more likely to be innovative is their openness to things happening elsewhere. Membership in professional associations also leads to the spread of new ideas.

The point here is not that the encouragement of creativity is controversial, although it may be if the metaphor being used is considered inappropriate (as many people thought about the idea of making government more like a business). The point is that it is a separate kind of activity that requires distinct attention. Perhaps that is why replication, imitation and best practices are so popular: they involve minimum risk or departure from what works in a given field of activity.

Context and process

In my study of innovation among Canadian governments (Gow, 1994: 110, 134), I found it essential to consider the context in which an innovation was considered. Following the suggestion of Elkins (1983), I adopted a grid which asked about any

innovation whether it originated within the organization or if the initiative came from outside it and whether its origins came from a power relationship (and therefore politics) or from a non-controversial technical problem. Only one of the fifteen cases studied had external and technical origins, and that was the information technology called at that time the electronic office, which was vendor driven. All the others had a political component. In contrast, Borins' study of *Local Heroes* (1998) dealt with innovations that were more managerial, local and specific; even so, they ran into power considerations arising from internal resistance. To succeed with adoption and implementation, Borins recommended information, persuasion and bargaining before trying to impose an innovation by authority (72).

What this latter menu indicates is that these proceedings are political not analytical or technical. As indicated, few of the innovations I studied were purely or mostly technical. It is one of the defining characteristics of PSI that even the most technical of dossiers may quickly become political, if stakeholders or the media decide to make it so.

The point here is that the context, along with the stage in the process, indicate what is the appropriate method for innovation: invention requires freedom to consider all possibilities, without immediate concern for technical or political rationality; analysis requires evidence-based scientific, legal and/or technical reasoning; while politics requires persuasion, negotiation and bargaining.

Behn writes (1991: 215), "Context is everything". It does appear to be a determining element that decides what method is appropriate. I would add that on some of the classic dilemmas that we have encountered, such as central, top-down versus decentralized, bottom up and planning versus groping along, these are also judgement calls, that give importance to leadership, even if we wish to avoid the "heroic model" of innovation.

Management is such a conglomeration of different activities and capacities, that one of the essentials of leadership is the ability to recognize when different kinds of activity are called for. Borrowing their classification from C.J. Jung, Rowe and Mason (1987: 140) argued that successful managers must be able to operate in the realms of both thinking and feeling, of intuition and analysis. Something similar occurs here, where analysis calls on verifiable facts and careful reasoning, whereas creativity and politics call for more intuition and empathy, or the ability to put oneself in another's shoes.

Conclusion

The purpose of this paper was to return to the subject of PSI theory after two decades and to enquire into the state of theory at this time. I found that there does not seem to be much controversy about the kind of people who are innovative, the stages of innovation nor about the kind of innovations that are likely to succeed, but that on many other aspects of the question, there was a surprising lack of agreement.

It seems that there is still important disagreement about what constitutes a true innovation, with the debate centering on the merits of a multitude of lesser improvements versus a smaller number of major, disruptive, changes. The debate continued between proponents of planning and those who think one must “grope along” by trial and error, and between those who favour top-down and those who prefer bottom-up processes. Everyone wants to have results on innovations measured, but there is not agreement about what should be included in these results nor about the criteria of success. Innovation seems to pose huge problems of accountability to some, but others act as if it were a false problem, noting that most innovations can be introduced without recourse to higher political and administrative authorities.

All of which leads to the following conclusion:

- when you have trouble defining the object of your studies and stating the problem to be solved;
- when you must depend on a certain kind of leadership for innovations to occur;
- when you must frequently deal with self-reporting, which may be a house of cards, and which does not include failures;
- when the context is one of political clash, media fault-finding and confrontational accountability;
- when at every stage of the process there are paradoxes to be faced;
- when you do not have a clear protocol to establish whether an innovation will do more harm than good;

then, as Everett Rogers and colleagues put it (2005: 6) you have an indeterminate subject, like innovation itself. Systematic studies such as those of Borins are certainly to be welcomed, but they do not include the larger controversial innovations. Moreover, the imperative of local adaptation leads one to wonder if these innovations are really comparable (Pollitt and Bouckaert, 2004: 200-202). If the world is really composed of local heroes doing their own thing, and repeatedly reinventing innovations, it certainly complicates the task for researchers (not that that is a reason not to do it).

I am of the school of Kahneman (2011), Taleb (2007) and Gould (1989) that there is more chance in these matters than we wish to admit. Still, innovation occurs in the public sector and it behoves us to try to understand it. With the exception of the work of E. Glor (in its intention and scope), most of the studies in this area are designed to aid in the process of successful innovation. This is inevitable, as it is in all of the study of public administration, as governments and administrators search for ways to improve, to adapt and to survive.

These observations bring us back to the initial step in theoretical reasoning which is, what is the question? Of the authors considered, Glor is the one who pays this the most explicit attention. She proposes that what we are looking for are patterns which, if accurate, will have some predictive power. Rogers came to think that the search was to understand the process rather than, as he had long believed, to identify the determinants or independent variables causing innovations. He also came to believe that there can be too much innovation, which adds to the list. Borins basically undertook to study how the

most successful of the Ford Foundation candidates achieved their successes. He also noted (Borins, 2001: 9) that it would not be desirable to have a public sector “that is as unrelentingly innovative as the private sector”. Behn’s sixteen “dilemmas”, can be reformulated as research questions. The various surveys by contemporary public bodies seem to take for granted that innovation is a good thing.

At the end of this reflection, the basic question that comes through from PSI literature is how to do it successfully. This, however, leads to several other questions. Of an innovation, we need to know if it is beneficial. That question breaks down into three others: does it work? do we like the result? what are the side effects? In this last case, I agree with Bourgon that we should look not only at the intended policy results of an innovation but also at the civic or democratic results. Another set of questions concern whether or not the innovation is replicable and how far reinventing or adaptation can go before the innovation becomes something else.

The question of how to create and sustain a culture of innovation is important. This includes getting the right mix of rewards (Glor) and as Borins says, finding the tools of persuasion and the accommodations needed to obtain the acceptance. We need to know how lasting are the effects. Do we need, with Tennyson, to worry “lest one good custom should corrupt the world”?

A question that probably escapes the realm of serious research is how to determine when not to innovate. It is the task of the public service to find the balance between adapting and preserving, between change and conservation, both in the name of the viability of the political system. Who is going to tell political leaders that there has been enough change for the present in the structures of the state, the content of the primary and secondary school programmes, the financing of local government?

A key question facing managers concerns the correct identification of the context in which an innovation occurs. I remain persuaded, as I was in 1994, that there are three overlapping but different stages in an innovation, namely invention or creation, analysis and negotiation, and that each requires different methods and capacities.

Governments, of course, will not wait for academics to sort out their differences before acting on what they see as an imperious need to innovate. Moreover, there is much interesting and informative research on PSI taking place. Even so, this return to the subject after twenty years leads me to think that PSI theory will not be able to advance much until progress is made on the controversial questions discussed here.

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