CONTINUING THE SEARCH FOR A THEORY OF PUBLIC BUDGETING

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ABSTRACT. This paper argues that the search for a theory of public budgeting has proceeded mainly on assumptions of the rationalist paradigm. This approach yielded mostly technical explanations for budgeting phenomena. These explanations fail to capture the complexities of public budgeting and yield incomplete theories. Without attempting to break new ground, the authors argue that budgeting theory should be guided by heuristic concepts borrowed from open systems theory. This offers greater potential for reconciling the rational and non-rational aspects of budgeting and permits constructive synthesis of insights from extant theories of budgeting without rejecting the rationalist paradigm. This approach views budgeting as only one of the complex functions governments perform to cope with their environment and to maintain stability.

INTRODUCTION

In 1940, V. O. Key (1940, p. 1138) stated: “The absorption of energies in the establishment of the mechanical foundations for budgeting has diverted attention from the basic budgeting problem...namely: On what basis shall it be decided to allocate x dollars to activity A instead of activity B?” Over seventy years have passed since Key lamented the fact that the budgeting method of his day was a purely mechanical process for allocating money, which ignored normative questions and did not consider important societal and political values. Today we are not much closer to a satisfactory theory of budgeting than we were in Key’s time. One explanation for

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this lack of theoretical progress may be found in looking at both the ideological and epistemological development of budgeting theory. A careful review of this development will show that the state of, or lack of, theory today is a natural by-product of the philosophical environment that formed the context for theory building in this field of study. This paper asserts that the focus of theory development was misdirected from the beginning and should now be redirected if we are to make theoretical progress. The authors make no claim to breaking new ground. Instead, they suggest an alternative direction in the search for a public budgeting theory that may offer greater potential for cumulative theory building.

In order to make judgments about the merits of any claims of having stated a theory of budgeting, we must understand what a theory is and what it does for a discipline. It is also important to address theoretical questions before moving on to addressing bigger questions that will allow us to make statements about the nature of things budgeting (ontological questions). Bacharach (1999) defined a theory as a statement about relationships in the real world, which is made within the framework of beliefs about how this world works. He described a theory as an analogy drawn for the purpose of answering questions about how, when and why, and for providing researchers with a general model for understanding the nature of reality. Bacharach explained that theories are what drive research and understanding in a field because they help researchers formulate the kinds of questions that simplify the complexities of the real world. Thus, theories help explain and predict phenomena rather than merely describe them. According to Bacharach, much of the work in organizational and management science has thus far been only descriptive and therefore should not be thought of as good theory.

Bacharach’s argument implies that before we can understand what public budgeting is, we need a theory about budgeting that helps us to simplify the real world of public budgeting in order to understand how, when, and why governments budget. Descriptive analyses can provide some useful tools and partial answers to some questions about budgeting, but they are not adequate for the type of theory building Bacharach envisions. The authors here argue that budgeting theory has so far been incomplete because it has provided only partial answers to the how and when questions of public
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budgeting. It has provided some helpful descriptions of budgeting without adequately addressing the question of why governments budget the way they do. Therefore, theory is yet to answer the big ontological questions about the nature of public budgeting. The reason for this failure lies partly in the historical development of public administration theory and organization theory and in the subsequent focus of these areas of study. Lewis (1997, pp. 151-152) noted that budgeting theory developed along the same intellectual lines as theories of public administration and is plagued by the same theoretical and practical problems that affect public administration theory. Historically, these two fields focused primarily on control, efficiency, predictability and continuity, a natural by-product of the philosophical environment of the times.

This philosophical environment was made up of the attitudes, “frames of reference, intellectual paradigms, perceptions, ideologies, and cultures” that policy makers experienced and interpreted (Koven, 1999, p. 2). Koven asserted a linkage between the intellectual heritage of budgeting theory, political attitudes about the role of government, the approaches to, and the outcomes of the budgeting process (p. 6). This paper argues that these intellectual and political attitudes persisted throughout the development of public budgeting theory and that they constrained the development of a robust public budgeting theory. In their quest for understanding, theorists constructed multiple theories of public budgeting, each having strengths and weaknesses, but with no cumulative effect. Yet, in this process, they developed some useful tools that can help us begin assembling a more robust theory of public budgeting. The next section will review how public administration theory developed and what implications its development had for public budgeting theory.

HISTORICAL AND INTELLECTUAL DEVELOPMENT OF BUDGETING THEORY AND PRACTICE

As the twentieth century dawned, American public policy makers watched in alarm as the activities and accompanying expenditures of the federal government expanded exponentially. With limited resources, and a growing awareness of inefficiency and corruption in government, there was a concomitant need to improve government fiscal administration. Policy makers recognized that while
government finances needed to be placed on a rational basis, the technical tools and institutions for managing government were very limited. These problems naturally led to a determined effort to find tools for placing public financial management on a sounder footing (Pillege 1997, pp. 69-70). It was during this time that theorists began focusing on administrative rationality as a method for approaching the task of public management.

Defining technical rationality as a way of thinking and living that emphasized analytical behavior and a strong optimism about the possibilities of technology, Adams (1992, p. 363) states that throughout the 1896-1920 period, the “scientific-analytic mindset and the belief in technological progress” combined to unleash a “powerful current of technical rationality and professionalism.” Thus, from its very inception, the reform movement looked to the instruments of technical rationality to address the problems of inefficiency and waste in government. Reformers were inspired by Woodrow Wilson (1887), Frank Goodnow (1900), Leonard White (1926) and Luther Gullick and Lyndall Urwick (1937). These early scholars called for improved technical methods of administration to make the operation of government more business-like. A notable consequence of the intellectual environment they helped to foster was a dualistic view of the world. This view distinguished sharply between facts and values, structure and behavior, means and ends, politics and administration. These dichotomies had a decisive and enduring effect on budgeting theory and practice.

The most prominent early scholars who shaped the intellectual context for post-progressive public administration argued for a strong, centralized executive style of management. Lewis (1997, pp. 157-159) points to the fact that the scientific management and administrative management movement was significant in shaping the political and ideological forces which led to the passage of the Budgeting and Accounting Act of 1921. The early reformers favored limiting the scope of government activity to save money (Rubin, 1994, p. 231). Thus the budgeting system that evolved out of the 1921 Budgeting and Accounting Act was focused on control and was instrumental in nature. Most notably, it established a line-item budget that was executive centered and set up the General
Accounting Office to provide Congress with the technical capabilities to play a more decisive role in budget decision making.

The line item budget broke expenditures down into detailed items of government expenditure and seemed to offer government the greatest potential for cost control and improved efficiency. Consistent with the need for bringing discipline to the fiscal affairs of government, this budget emerged as the methodology of choice (Pilegge, 1992, pp. 72-73). Because reformers also believed that greater fiscal discipline required centralized, top-down management, they naturally believed that the responsibility for budgeting should rest with the executive. As a consequence, the line item budget was developed as an executive or top-down method of budgeting.

Since it focused on items of expenditures rather than the purpose or any other function of expenditure, the line item budget gave no attention to the basis for allocating resources in any particular manner (Hyde, 2002, p. 3). It also provided no basis for explaining the actions of budget participants; therefore, it had no predictive value. Thus, from the outset, attention was focused on how budgeting should be done to the exclusion of larger theoretical questions, such as what is budgeting, or why is budgeting done. This was consistent with distinctively positivist direction in which public administration and budgeting theory was moving. It reflected a greater concern with how to administer government rather than with developing a grand theory of public administration (Snider, 2000, pp. 123-145).

Perhaps the most significant consequence of these intellectual developments was that thinking in the field came to be driven by the idea that the goal of administration is efficiency. It was assumed that efficiency required a vertical chain of command, centralized authority and division of labor. Fundamental to this theoretical position, was the notion that there was a body of practical administrative techniques that administrators could learn and apply in order to achieve administrative efficiency (Snider, 2000, p. 136). Thus, the fundamental premise of rational approaches to public management was that there was a “best way” of doing the business of government and, by implication, the business of government budgeting.

It soon became evident that the line item budget approach provided no information about program goals or achievement. It was inadequate for relating expenditures to public accomplishments or for
making choices between alternative resource allocations (Pilegge, 1992, p. 73). In 1949, the Hoover Commission revisited the issue of public budgeting and recommended the adoption of performance budgeting. This budget method was based on the functions and activities government carries out in implementing its policies. Reformers hoped that this budgeting technique would enable program managers, agency heads, elected officials and citizens to identify the costs associated with government activities. This approach to budgeting was consistent with the notion that government needed to control costs in order to improve operational efficiency (Pilegge, 1992, pp. 74-75). Performance budgeting was, like the line item budget, another technical approach which also ignored Key's question. It kept the focus of theory on the how to achieve given ends, while giving little or no attention to the wider context within which budgeting takes place. It also excluded consideration of the behaviors associated with budgeting.

In the 1960s, the federal government replaced performance budgeting with program budgeting. This new budgeting method was premised on the notion that budgetary decisions should be based on the goals or outputs of governmental activities rather than the inputs to the production of government goods and services. This budgeting technology relied heavily on the methodologies of program forecasting and systems analysis, and as Pilegge pointed out, it was a more sophisticated budgeting technique than any of its predecessors. Program budgeting focused on the objectives of government spending, but its underlying motive was still to improve rationality in budgetary decision making (Pilegge, 1992, p. 75).

The next major budget reform came in the 1970s in the form of zero-based budgeting. This methodology was designed to enhance decision-makers' ability to compare more than one recommended level of spending for each program activity and to determine which decisional units were deemed to best achieve program objectives (Pilegge, 1992, p. 79). Zero-based budgeting required a level of detail and clarity that was difficult for policy makers and budget officials to achieve. This reform proved difficult to implement and sustain, so the search for a new budgeting method resumed.

It is significant that the line item budget, program budget, performance, and zero-based budgeting were all technical in nature.
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Historically, budgeting reforms were designed to address the method of public budget preparation and to achieve rationally defined outcomes. Pilegge asserts that this way of thinking limited attention to the budget document itself while ignoring the broader context of budgetary decision making (Pilegge, 1992, p. 81). This approach was not conducive to developing a systematic understanding of the processes by which spending decisions were made. Without such a systematic understanding, public budget theory cannot accurately account for the processes and structures of budgeting or properly relate these variables to the wider environmental context in which budgeting takes place. In the next two sections of this paper, the authors will review in greater detail why budgeting theory developed within the rational tradition and how this development frustrated the building of a robust theory about public budgeting.

Intellectual constraints on theory development

Without stating a grand theory which provides a big picture of public budgeting, we lack a solid base on which to build sound micro theories of budgeting. Thus, after over seventy years, theorists are still without a theory that provides an adequate understanding of what constitutes public budgeting. The main reason for this failure lies in the intellectual blinders that narrowed the range of inquiry to things rational and instrumental.

Koven (1999) cited two basic factors in the development of budgeting practice and theory which account for this failure. First, he stated that budgeting theory is rooted in a political culture, which supports a top-down posture of rule by experts. This attitude easily coexists with the assumptions of the closed systems model, which is based on the assumptions of the technical-rational paradigm (p. 9). In this political culture, the goal is to maximize the use of scarce public resources by implementing a budget process that is scientific, systematic, and rational. It is this logic of rationality that dominated the development of budgeting theory and played itself out in the history of past budget reforms (p. 10).

Technical rationality requires instrumental reasoning. But while this is, and should be, an important aspect of budgeting, it does not allow theorists to break free of instrumental reasoning and go beyond questions of how to budget. The theories emerging from this
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paradigm are prescriptive with respect to the methods of budgeting but offer limited insight into how the ends of budgeting are conceived or how the process unfolds, how we learn from past experiences, or how our environment constrains and shapes our choices. Rational models, such as scientific and administrative management are closed systems approaches to studying organizations because they assume all the sufficient and necessary conditions for achieving technical efficiency are met (Thompson, 1967). They rest on the assumptions of goal clarity and repetitious, linear decision processes. These models also conveniently assume that the resources for organizational activities are readily available, and that the outputs from these activities are tidily absorbed by some matching external source of demand. Under these conditions, the rational model assumes that technical logic and economic decision criteria lead to efficient solutions for organizational problems (pp. 3-7). Non-rational, value driven variables present the challenges of paradigmatic anomalies for rational theorists because many of the factors they would have to take into consideration are not easily managed by rational models of budgeting theory.

A narrow rationalist approach to the study of decision making stymies the development of public administration theory because it overlooks the importance of values and fails to address the practical aspects of administration (Snider, 2000). Snider argued that we need to adopt other approaches to inquiry if we are to come to grips with both rational and non-rational phenomena or to inject greater pragmatism into public administration theory. Examples of these non-rational phenomena include public opinion, intergovernmental relations, interest groups, the press and politicians (Rubin, 1992, p. 10). Accordingly, it may not be unreasonable to argue that some of the failures in budget reforms stem from the fact that these reforms failed to account for some of those very factors which the rationalist paradigm assumes away as given variables.

One notable failure of budgeting reform efforts was the neglect of the organizational and behavioral contexts of public budgeting. This omission was a natural consequence of the rational paradigm’s dualistic view of the world. This assumes that structure and behavior are separate in organizations in much the same way that politics and administration, or facts and values are separate streams. Forrester
and Adams (1997) proposed that instead of taking this dualistic approach, theorists should try to understand public budgeting as a process of interaction and organizational learning. Because theoretical questions are what guide research, a reorientation in the approach to theory building will require that theorists ask different questions about public budgeting. Should the focus be on the structuring of the budget, or on the process (behavior) of organizing the budget? Instead of asking questions about how budgeting should be done, should they ask why does government budget? From Forrester and Adams’ perspective, the second question is more relevant because it leads to a more appropriate focus for understanding public budgeting, budgeting reforms, and the organizational and human behavioral dynamics that drive the budgeting process (pp. 477-483).

Because politics and values have not been adequately addressed in theoretical discourse, Snider (2000) argued that both in public administration theory and practice, the effect of the dualistic separation of politics and administration is patently evident. The consequence is that the field lost sight of the pragmatism necessary to blend thought and practice, while theory focused on efficiency and the principles of administration. Perhaps this is most obvious in the area of public budgeting, where logical positivism has been especially powerful in weakening the gap between theory and practice. One writer described the field of public administration theory and pragmatism as “parallel universes” with no exchanges between them (Stever, 2000). Stever is pessimistic about the possibility of bringing pragmatism to public administration because of the hold of logical positivism on the field. This paper argues that this problem may not be as intractable as he supposes. Instead, it suggests that there may already be tools available for overcoming this problem and for strengthening the connection between the theory and practice of public budgeting. The discussion that follows explains how these tools were developed and how they may be constructively applied to public budgeting theory.

From the beginning of the reform movement until around 1946, the field of public administration was dominated by traditional rational theorists who believed that structure was critical for achieving organizational goals because it provided stable preconditions for applying the principles of scientific management.
the mid 40's, the field began to transition into an era of theoretical pluralism. Neoclassical theorists challenged traditional assumptions about rationality by pointing to other important features of organizations. For example, Barnard (1938) successfully challenged the idea that a hierarchical bureaucratic structure with its vertical authority structure, fixed rules and procedures, were the primary components of successful organizations. He stressed the importance of the social or human side of organizations and brought to prominence the idea that organizations are systems for human cooperation. It is significant that although Barnard challenged this one sided view of organizations he did not discard the notion of the classical bureaucratic structure and its bias for technical-rationality.

Later, when Simon (1945, 1946) launched his attack on classical theory, he shifted the theoretical focus from organizational structure to the process of organizing. Simon's landmark work marked the point of distinct cleavage in public administration theory between ideas about structure and behavior. Interestingly, Simon also did not abandon some of the key assumptions of classical theory and the classical premise that organizations were designed to rationally achieve the goals of their founders. He did not discard the notion of organizational rationality. Instead, he argued with clarity that there were limits to the rationality that classical theorists attributed to organizational participants, and that there is no one best way for making decisions.

The theoretical issues raised by such writers as Simon and Barnard laid the foundation for an unsettling debate over organizational structure and behavior and over the utility of focusing on technical-rational means as opposed to addressing normative issues in the business of administration. A parallel debate also occurred in budget theory. Simon's work and that of others such as Barnard (1938), Roethlisberger and Dickson (1939), Folett (1942), and Maslow (1954), led to the development of the human relations school. Together, these theorists underscored the importance of the human element in organizations. But even as this debate raged the rationalist paradigm held its ground, and theorists were unable to advance to an established grand theory of budgeting. From Daneke's perspective, public administration theory failed to agree on adequate explanations for phenomena of interest. He argued that this failure
reflected a preoccupation with methods of economic analysis and the neglect of moral values and political philosophy (1990, pp. 383-392). The same can be said of budgeting theory. As a result of an over-reliance on positivist methodology, budget theory emerged as a relatively closed system of thought, which pays insufficient attention to the insights that alternative methods of analysis offer.

Several alternative theoretical models attempted to overcome the limitations of the technical-rational model of budgeting and to improve its predictability by broadening the theoretical focus beyond narrow rationality concerns. These models include, but are not limited to incrementalism; the median voter; alternative theory, organizational process; and public choice models. The most notable alternative to the rational model is the incremental model of budgeting. Incrementalism conceptualizes the budgeting process as an outcome of human behavior in a political environment. Wildavsky (1992) argued that the outcome of the budgeting process is influenced by such factors as political culture; the behavior of budgeting participants; competition for scarce resources; consensual bargaining; and small, adaptive changes in budget appropriations. His model provided useful insights into the politics of budgeting but is criticized on several counts. Most notably, it is criticized for being too descriptive, too focused on politics and micro-budgeting to the neglect of macro-budgeting, and for failing to distinguish between the implications of discretionary versus mandatory spending (for example, see Meyers, 1994; Schick, 1966; 1969; Rubin, 1989).

The median voter model of public budgeting assumes that individual voters are rational utility maximizers. The individual preferences of voters influence the outcome of the budgeting process through collective voting behavior. Thus the outcome of the budgetary process reflects the choices of individuals (for example, see Barr and Davis [1966], Bergstrom and Goodman [1973], and Inman [1979]). This model is also criticized on several grounds, including its omission of agenda-setting and policy-making processes; the assumption that budgeting decisions are unidimensional; the assumption of direct democracy; and its failure to account for the political process in budgeting (Kearns & Bartle, 2001).

Gerald Miller (1991), in his groundbreaking text, Government Financial Management Theory demonstrated that economics and
political science, the disciplines that budget theory traditionally drew heavily from have not provided sufficient theoretical perspective for development of financial management theory. He condemns “prevailing theory” for its reliance on the “notion of intended rationality” (Klay, 1992, pp. 211-239). Instead, Miller (1991) argues that traditional financial management theory is plagued by ambiguity. To overcome prevailing constraints on financial management theory, to reduce ambiguity and to achieve greater certainty, he proposes an “alternative theory” for financial management, which “searches for description and explanation of what does happen in ambiguous circumstances” (p. 8).

One promising model of public budgeting theory may be the multiple rationalities model of budgeting. This is a process based approach which brings together aspects of Kingdon’s (1995) model of policy making with Rubin’s (1997) model of real-time budgeting. The multiple rationalities model provides useful insight into the behavior of budget analysts as they navigate a complex social and political environment. It incorporates both top-down and bottom-up budgeting behaviors (Thurmaier, 1992, 1995; Thurmaier & Willoughby, 2001). The multiple rationalities model is consistent with an open systems analytical schema because it considers the behavior of budgeting analysts as they respond to various sources of environmental influences. This model allows for disaggregating the parts of the budgeting process into subsystems to better understand how these subsystems, processes and behaviors add up to a bigger picture of budgeting.

Some of the problems with public budget theory may also be attributed to its failure to define the concepts and constructs of public budgeting theory in a clear and consistent manner. Sound theory requires consistency between the level of analysis applied to different parts of the budgeting system and its different sub-structures. Without this consistency and clearly defined concepts it will not be possible to arrive at the epistemological consensus necessary for cumulative research and robust theory building. In his study of organizations, Pfeffer (1982, pp. 41-42) stressed the importance of distinguishing between the micro-levels of individuals and substructures on the one hand, and the macro level of organizations and the network of organizations on the other. Moreover, as Graham
and Van deVen (1983, pp. 245-273) pointed out, blending different levels of study and perspectives of organizations can present pictures of the same organization that cancel each other out. Because different organizational levels exhibit distinctive properties, it is important to distinguish between different organizational levels and not to assume that they possess unitary or generic structural and behavioral characteristics.

Modern structuralists attempted to bridge the gulf between structure and behavior by retaining the traditional concern about organizational function and structure. At the same time they acknowledged the extreme complexity of organizations and recognized that structure is not necessarily synonymous with formal bureaucracy. Modern structuralists, such as Blau and Scott (1961, pp. 2-8) argued that organizational structure and behavior depend on the environment and at the same time also affect the organization. This implies that theory must address mutually reinforcing interactions between the organization and its participants and examine behavior in the context of the organization’s environment. These ideas were more rigorously developed in open-systems theory and are very pertinent to the search for a theory about public budgeting.

The following section will introduce the concept of open systems as a model of thinking and its relevance to public budgeting. Following an overview of systems theory, this essay provides specific examples of how this theoretical model offers some useful heuristic tools for more systematic theorizing about budgeting. In an effort to address some of the problems highlighted above, the authors suggest a return to the foundations laid by prominent organizational theorists, including Simon, Thompson, Katz and Kahn, and Pfeffer. Their work provided us with some very useful tools we can use to address some of the current epistemological problems that hamper the development of public budgeting theory.

**OPEN SYSTEMS AND THE POSSIBILITY FOR DEVELOPING A THEORY ABOUT PUBLIC BUDGETING**

Systems theory is a synthesis and development of older intellectual ideas. Simon and Thompson’s work provided the early theoretical groundwork for systems theory. Simon (1945, 1946)
introduced the concept of bounded rationality, while Thompson (1967) introduced the concept of interconnected organizational parts. These two concepts became the intellectual base from which open systems organization theory developed. Katz and Kahn (1966) successfully fused these ideas into a concept of organizations as open systems, dependent upon, and constantly interacting with their environment. According to Katz and Kahn open-systems concepts focus attention on organizational inputs and outputs, rather than on the goals of rationality. This approach is in direct contrast with that of extant budgeting theory, which from the outset focused largely on the rational purposes of budget makers. Without a similar framework for budgeting theory it is not surprising that Key was concerned that budgeting theory rarely enquired beyond the goals of technical rationality to ask questions about the ultimate goals of budgeting, standards of budgeting behavior or the normative bases for the outcomes of budgeting. More attention to matters that go beyond rationality would have moved budget theory in a very different direction. It would have constrained theorists to address both the micro and macro contexts of budgeting and the forces and norms that drive budgeting behavior in both of these contexts.

Gregory Daneke offered some intriguing suggestions for theory building that deserve some reconsideration. He proposed an approach that finds generalities by identifying similarities in structure across systems. Specifically, Daneke suggested that the systems approach is useful for developing theory because it falls within the positivist paradigm but integrates interdisciplinary methodologies in such a way that permits rigorous cross-disciplinary analysis (Daneke, 1984, p. 11; 1990, p. 389). The authors here are not advocating a systems theory of budgeting. Instead, they argue that systems analogies provide good conceptual material for thinking about budgeting as an organizational process. The authors believe that these concepts are useful because they do a better job of directing attention to questions we need to ask about the nature and outcomes of the public budgeting process.

Before analysis in systems theory can proceed, theorists identify the parameters of the larger system itself, its subsystems, and the system’s operational environment (Scott, 1985). This paper argues that government is the system of interest for the budgeting theorist.
At the federal level, this system incorporates sub-parts such as agencies, Congress, the Congressional Budget Office and the Office of Management and the Budget. The social, political and economic environment consists of the wider system, or context, within which government functions. This environment includes the intergovernmental system, private business, citizens, interest groups, political parties, etcetera. Budget theorists could equate the office of the chief executive and the legislative branch with the institutional level, or apex, of the governmental organization. The public agencies could be viewed as its intermediate managerial and operational parts respectively.

Budgeting is the most central activity of government and it affects all aspects of government action in a most profound manner. Thus, it could be considered to be at the technical core of government activities. In accordance with Thompson’s formulation, budgeting theory could view higher levels of government (the institutional level) as mediating with the task environment (the economy and wider society) relevant to determine its strategic policy goals. At this level, the system assesses the environment with all its problems, demands, uncertainties and resource constraints. The most pressing contingencies would inform government’s policy goals and at the same time present challenges and constraints. A government attempts to reduce uncertainty and deal with threats to its political survival and its policy agenda by mediating between the elements in its external environment and within its own subsystems that threaten the direction and content of policies.

Systems theory views all social systems as patterned activities of individuals and groups of individuals. The output of a system closely reflects the nature of these patterned activities. In the context of budgeting theory, the output is the budget, which is the result of a patterned and interdependent budgeting process. Consistent with Thompson’s view of organizational activities, budgeting activities have a stable cyclic pattern and are subject to strict time constraints. The stability and cyclic nature of a budgeting cycle can be studied in the context of the systems’ concept of the cycling of inputs of energy and its related output. The outcome of the cycle of budgeting activity furnishes new energy for renewed cycles of future budgeting activities.
If we relate government budgeting to the open-system phenomenon, we can also think of the budgeting system as importing energy from its environment (Koven, 1999, pp. 6-7). These inputs of energy include information, demands for services, revenues, and other material and human resources. Negative feedback is especially important for the system to make adjustments in future cycles of activities. In each budgeting cycle, these outputs and feedback produce yet another round of inputs in the form of new demands, information, revenues and other resources in the next cycle. Thus, there is a never ending cycle of feedback, interdependence, and adaptation (p. 9). The interrelated parts of the budgeting system transmit informational feedback to key internal subsystems (the executive and the legislative branches). These subsystems then process these feedbacks to determine what output should be produced and what means should be used to achieve these results. It is within the core budgeting subsystems, where the number crunching occurs and the budget document is produced, that rationality is most integral to the process. This issue will be revisited later in this article.

A theory about budgeting should explain how the interactions between the macro level of government and its environment determine the goals of budgeting and influence behavior within key budgeting subsystems. These explanations should not only give us a better understanding of what, why, and how particular appropriations and spending decisions come out of the process. They should also provide some guidance for predicting budgeting outcomes in the future. The open systems model should provide a theoretical device that explains how the reactivating energy from past budgetary outputs feed back to government from the environment via such avenues as voter approval, revenues, resource savings and increased political power for some key participants in the process.

Open systems theory proposes that while an organization preserves a more or less steady state over time, it evolves into a different, but a highly similar organization. This proposition could help in systematically explaining how changes and reforms in government and in budgeting are always taking place and how they normally come together over time instead of happening by way of dramatic revolutionary policy shifts. Our understanding of this change
process can be enhanced by approaching the study of the budget system as a study of interrelated and mutually adjusting parts of a system. These parts are involved in each new cycle of budget-related activities and they significantly influence the content of present and future government policy outputs. Understanding how the changing environment, politics, rules, structure, and resource constraints affect budgeting policies over time will help to account for how these repetitive cycles continuously evolve to become more and more complex. Examples of this evolving complexity include the evolution of the budgeting process to include more or new sub-events directed toward more precisely defined outcomes or the introduction of more sophisticated budgeting techniques. Other examples of how the cycle of budgeting assumes complexity over time are the successive budget and financial management reforms and the elaboration of ongoing policy programs.

According to open systems theory, a system must acquire and store more energy from the environment than it expends in carrying out its functions and preventing systematic decline (Thompson, 167, pp. 20-24). A budgeting system likewise acquires and stores energy in order to buffer itself from negative environmental conditions. Examples of buffering techniques in budgeting would include such strategies as establishing rainy day funds, efforts to improve the stability of revenue receipts, or conservative budget techniques, such as revenue underestimation.

As mentioned above, systems adapt and survive in their environment through elaboration and differentiation. In the case of government, elaboration and adaptation are crucial strategies for coping with its external environment. The forces or events in the environment that pose the greatest threats to the public or to the stability of an effective and democratic government are those which are most likely to prompt adaptive tactics. Government often finds it necessary to ingest or assume control of those parts of the environment that are most troublesome. Besides actually acquiring control through assuming functional responsibility, government may also exercise less direct control over troublesome elements of the environment by such means as regulations and government licensing requirements. In any system of government, this ingestion leads to growth in the number of its internal parts and processes. Particularly
in the American context, changes in inter-government relations are often inevitable consequences of adaptive budgetary policy behavior.

Open systems theory predicts that a consequence of this type of adaptive growth is a tendency towards the multiplication of cycles and subsystems. In the case of public budgeting, examples would include the establishment of committees and sub-committees, budgeting offices, planning offices. Thus, by applying open systems analogies to our thinking about budgeting, we can pose and answer questions about how, when and why governments budget. The answers to these questions can help us to build a general model for understanding the nature of public budgeting. Such a model would posit that the budgeting system moves towards differentiation and elaboration in order to deal with challenges posed by the policy environment. This would help to structure our understanding of how key policy structures such as Health and Human Services develop over time into a policy and budgeting subsystem of more parts and more specialized sub-functions. Reforms and rules related to these policy structures and sub-structures grow cumulatively and in complexity to reflect a growing understanding of policy problems, as well as the addition of new problems.

In articulating his theory of the organization, Thompson (1967) used Parsons’ concept of organizational levels (p. 10). This approach conceptualizes the organization as consisting of three levels: the technical, managerial, and institutional levels. At the technical level the organization carries out its most fundamental, or core functions. These activities are directed at producing the outcomes identified as the organization’s goals. At the institutional level or the apex of the organization, leaders or policymakers give the organization its mission and provide high-level support for organizational activities. System learning and interaction between this organizational level and the environment helps the system to develop the broad organizational policy and strategic goals necessary to ensure successful adaptation and survival. It is at this level that the organization encounters the most fluid and dynamic aspects of its environment, experiences the greatest degree of uncertainty, and is least able to employ the techniques of rationality to its actions (p. 12). This implies that a sound theory of macro-budgeting cannot be grounded in generic notions of technical rationality, which are more
applicable to core budgeting activities. Instead, budgeting theory at the policy-making or institutional level should reflect the more fluid, non-rational nature of interaction with the environment and with its subsystems.

In its quest for stability the managerial level of the organization must mediate between the institutional and the technical levels of the organization. It is also responsible for securing the resources necessary for core (technical) organizational operations. Stability within this part of the organization is even more critical for organizational survival. Thus, according to Thompson (1967, pp. 11-12) and Mintzberg (1979, pp. 24-29), the organization seeks as much as possible to protect this most basic part of itself from the effects of uncertainty. In a theory about budgeting, it is at this level that the assumptions of rationality would have the greatest relevance because budgeters operate with a greater number of measurable constants derived endogenously from other organizational subsystems and levels. Using similar analogies, Koven (1999, p. 8) noted that budgeting officers recognize and respond to environmental forces in order to increase the legitimacy of government and secure outcomes which heighten satisfaction with the process. Thurmaier’s (1995), and Thurmaier and Willoughby’s (2001) multiple rationalities approach to modeling public budgeting is a noteworthy examples of how of these principles can be applied to public budgeting at the individual level.

Thompson (1967) proposed that under norms of rationality, organizations seek to create steady conditions for their technical core by buffering it from destabilizing environmental influences (p. 20). In the context of budgeting, this is mirrored by persistent efforts to improve the certainty of budgetary decision making. The various budgeting technologies applied through subsequent waves of budget reform are apt examples of how governments attempted to improve their budgetary decision making amidst uncertainty. To take system analogies even further, governments also try to protect their technical core by buffering or stockpiling activities. The establishment of rainy-day funds mentioned earlier and balanced budget requirements are examples of these buffering activities designed to balance inputs and outputs and to smooth out future transactions. Smoothing and leveling are strategies for protecting the organization from fluctuations in the environment (p. 21). These activities require
environmental scanning and early detection in order to anticipate environmental changes which cannot be buffered or leveled. Therefore budget forecasting becomes a specialized and elaborate organizational activity associated with smoothing and leveling. Examples of this are the elaborate revenue and expenditure forecasting methodologies developed and used in modern government. Klay (1992) described revenue forecasting as an effort to learn about the environment by studying its behavior. He described forecasting as “an educational process that can enlighten officials about the subtleties and complexities of causal relationships in the jurisdiction’s economy” (p. 223). When buffering, leveling and forecasting are insufficient to protect the technical core from environmental influences the system resorts to rationing (Thompson, 1967, p. 23). In budgeting, rationing is effected by measures such as cutting expenditures and or programs.

Another method that organizations use to minimize their general vulnerability to the environment is by maintaining alternative sources for resources and by seeking support and alternative power sources relative to those on whom the organization is dependent (Thompson, 1967, p. 20). This provides yet another useful analogy for integrating the politics of budgeting with the process of budgeting. It explains why it is necessary for budgetary actors to resort to cooperation, alliance building, and other tactics to preserve or enlarge their control over the budgeting task environment.

It is important to distinguish between subsystems and organizational levels (Mintzberg, 1979, pp. 53-64). A subsystem in the context of budgeting theory would consist of clusters of “work constellations” or information flows and decisional processes that cut across organizational levels (pp. 50-53). Borrowing open systems schema offers useful analytical tools that can bring greater consistency to the analysis of different parts of the budgeting system and its different sub-structures and systems. Budgeting theory can distinguish between the micro level of individual budget actors and the macro or system and environmental levels of budgeting by using the same approach Scott, Katz and Kahn, and Thompson used to distinguished between the micro-level of individuals and organizational substructures, and the macro or network level of organizations. An open systems approach distinguishes clearly
between the micro and macro levels of the phenomenon of interest with care to identify the appropriate unit of analysis that matches the level at which the phenomena is operating. A theory about budgeting based on similar principles would encourage theorists to better match the unit of analysis and the level at which the phenomenon of interest is operating. This could avoid much of the theoretical confusion which Graham and Van deVen (1983, pp. 245-273) and Pfeffer (1982, pp. 41-42) pointed out. Given the variations in the degree of interaction with the environment at different organizational or systems levels, an analytical approach which distinguishes between these levels of analysis should also allow keener insights into outcomes that are caused internally or externally because it does not treat the entire system generically, with respect to its environment.

The core technologies or methods of extant public budgeting theory rest on a closed system logic of technical rationality, but budgeting itself is imbedded in a larger context which contains varying degrees of technical rationality as well as non-technical forms of rationality. So far, much of the technology and theory of public budgeting has some relevance to the core activities of budgeting. But to the extent that they fail to provide theorists with a reliable analytical model, they also fall short of theoretically integrating budgeting with the larger system in which it takes place. Mintzberg's (1979, pp. 12-13) observation that research in organization theory has been unable to adequately grasp complexity and interconnectedness also holds true for budgeting theory. Budgeting theory, like organization theory, has so far yielded conclusions for the system as a whole that apply only to its parts. Building a well-rounded theory of budgeting should begin with a critical re-examination of models and assumptions that have guided the search for a theory. It is necessary to systematically reorient our focus to the wider context of budgeting as a larger institutional process with a constellation of smaller sub-systems which produces the final budget outcomes.

This does not necessarily involve breaking fresh theoretical ground. It may now be possible to assemble an alternative approach with tools already provided by others. A more thoughtful synthesis of the work by Simon, Katz and Kahn, Thompson, Willoughby, Thurmaier, and others discussed above may resolve some of the problems which have confined our focus to instrumentalism without yielding sufficient understanding about how the ends of budgeting are
envisioned and translated into budgetary output. The authors here posit that a theory of budgeting should include a focus on the specific details and technical-rational aspects of budgeting. This objective would best be served by studying budgeting at the micro or individual level. However, a theory about budgeting, should focus on the macro level of government budgeting. At this level, budgeting is more open to external influences and less subject to instrumental technical rationality. What happens at this level has the greatest influence on what happens at the sub-systems level. Thus a vigorous macro theory of budgeting will enhance our understanding of micro level budgeting phenomena.

A clearer understanding of budgetary behavior and its larger context has potential for going beyond mere description and for building a theory that accounts for the normative influences at play in public budgeting. It also has the potential for more predictive power and greater opportunities for practical application. A wider theoretical framework that employs the tools of technical rationality in addition to other useful tools can better help us to understand how and why the budgeting processes play out the way it does.

**CONCLUSION**

Open systems theory begins the analysis with the organization as a whole and examines individual behavior by looking at its location and function within a larger system. Systems typologies can assist in conceptualizing government activities as a set of interactive structures which incorporate many internal and external webs of social, political and economic networks. This theoretical approach assumes that behavior is both random and rational but also constructed and adaptive through constant feedback and adjustment. This model explicitly recognizes the complexity of public administration, organizations, and budgeting and their interconnectedness to the wider society within which they are embedded. In a democratic environment characterized by scarcity, where responsiveness and responsibility are demanded of public officials, these premises are particularly useful for studying the nature of budgeting as a part of public policy making.

Budgeting can still be imbued with some degree of instrumentality because it is a core government activity, the central
tool of public policy and public organizations. White (1994) aptly noted that budgeting is a process of providing government with the monetary inputs for its activities. “Budgeting remains the heart of government because if the heart stops beating, if budgeting legislation does not pass, the government loses its financial lifeblood” (p. 119). For this reason, this paper suggests that existing tools of organizational theory could be usefully applied to studying public budgeting and that its subject matter should first of all be viewed as a part of a policy sub-system and not as an isolated activity of government. The examples cited above relating the budgeting activities of government to aspects of an open system are by no means exhaustive, nor are they intended to be. They are only given as suggestions of how theorists can apply concepts from open systems thinking to constructing a holistic theory that explains how, when and why public budgeting is done.

The authors suggest that budgeting theory should always be cognizant of how individuals behave, their location, function and interaction within a larger system. Second, the study of budgeting should first address the macro, then the micro contexts of budgeting. It should view the budget only as the outcome of a dynamic system of multiple rationalities which operate differently in diverse parts of the budgeting process. This would help to focus study on the organizational inputs, outputs, and processes of the budgeting system both as a whole, and in parts, without at the same time confusing the parts for the whole. This approach would impose greater discipline on the study, because it should force us to choose the appropriate units of analysis for the level at which the budgeting phenomenon of interest is operating.

Third, a theory about budgeting should explain how the interactions between the macro-level of government influence participant behavior within key budgeting subsystems and help to determine what forces shape policy objectives, how the goals of budgeting are framed, and what appropriations and spending results from these interactions. It should also explain how norms affect budgeting via feedback to the budgeting system and how they work their way through the various organizational levels and subsystems into the next round of budgeting decisions. Finally, by isolating levels of the budgeting subsystems which are subject to different levels of rationality, this model may provide us with a method of resolving
some of the methodological problems to which traditional budgeting theory is subject.

Approached from this perspective, budgeting theory may yet yield insights that allow future budget reforms to target behavioral changes and to address technical processes as well as organizational issues (Forrester & Adams, 1997). The authors believe that the theoretical model suggested here can help to direct attention to research methods that ask more questions, not merely about facts, structure, and administration, but also about political and social values, different considerations that affect diverse players in the process, and how they shape the budget process and outcome. Hopefully these questions will lead to answers that provide a more contextual understanding of public budgeting and provide a firmer theoretical basis for drawing appropriate conclusions about public budgeting.

NOTES

1. Examples of these scholars’ work include Chester I. Barnard (1938), Fritz J. Roethlisberger and William J. Dickson (1939), Mary Parker Folett (1942), and Abraham H. Maslow (1954).

REFERENCES


