Biological approaches to public administration and public policy
Introduction

Christopher W. Larimer, *University of Northern Iowa*

Steven A. Peterson, *Penn State Harrisburg*

Abstract. **This special issue considers the relationship of the life sciences to both public policy and public administration. This makes sense because the bureaucratic process and public administration are deeply involved in the policy process and the development of substantive public policy. The two subjects are intertwined. And a biological perspective can illuminate many aspects of both. That is the focus of this issue.**

Key words: Public administration, public policy, biology

In his introduction to Elliott White and Joseph Losco's edited volume *Biology and Bureaucracy,* the eminent public administration scholar Luther Gulick[1,2] wrote,

> Thus, the new public administration, as a field of knowledge and operation, now requires specific attention not only to economics and psychology but also to the relevant aspects of human biology.

White and Losco's book also focused on the implications of biology for the study of public policy. Other volumes have explored this as well.[3,4] In addition, many scholars have explored the linkages between biology, on the one hand, and public administration and public policy, on the other hand, over a lengthy period of time.[5,6,7,8,9]

That this issue of *Politics and the Life Sciences* considers both public policy and public administration makes sense because the bureaucratic process and public administration are deeply involved in the policy process and the development of substantive public policy. The two subjects are intertwined, although many other actors are involved in policy development.[10,11]

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Correspondence: Christopher W. Larimer, Department of Political Science, University of Northern Iowa, 349 Sabin Hall, UNI, Cedar Falls, Iowa, 50614. Email: *christopher.larimer@uni.edu*

Pathways of linkage

Public administration

Using this issue's call for contributions as well as prior research, we note two approaches to the biopolitical study of public administration and public policy.

Research on the relationship between biology and public administration has taken at least two routes, focusing on (1) human nature or evolution and the roots of bureaucracy as a phenomenon or (2) human nature or biology as bases of decision-making and the operation of bureaucracy.

Going back many years, a literature on biology and the phenomenon of bureaucracy has been addressed. Charles Adrian[12] suggested that an innate need for cooperation explains, in part, the origin of bureaucracy: "Participation in organizational activities and goals… can be viewed as innately satisfying to the individual as a part of his preprogrammed commitment to group preservation." Roger Masters[13] applied an evolutionary framework to explain the interlinked processes of state formation and bureaucratic development.

On the effects of biology on bureaucratic functioning, scholars have spoken of bureaucratic pathology as an example,[14,15] such as bureaucratic infighting and turf conflict. Heiner Flohr[16] noted how bureaucratic functioning and impersonality can cause stress for those seeking assistance.

Public policy

In public policy, research seems to take one of two tacks, focusing on (1) the effects of human nature/biology on policy decision-making and the policy process or

(2) the implications from the life sciences for substantive policy decisions.

A number of scholars have contended that human decision-making processes rooted in the brain's operation make rational comprehensive decision-making and rational choice as theoretical perspectives questionable. Peterson[17] pointed out that decision-making is affected by brain functioning, such that policy decisions can be distorted by the operation of decision-making heuristics. Odelia Funke[9] noted that humans' biologically based policy decision-making is simply not up to the demands of rational choice theory. In terms of agenda setting more generally, the work of Paul Slovic[18,19] and colleagues has demonstrated why images of human suffering are not catalysts of policy change, as previous models suggested they might be.

Another line of inquiry is the implication of knowledge from the life sciences for the development and adoption of substantive policy proposals. Areas in which biological knowledge has informed policy include food aid policy,[20] genetic engineering and reproductive technology,[21] neurotoxins and policy,[22] climate change,[23] and evolution and a fair society (equality, equity, and reciprocity).[24]

The special issue

In this issue, all four of the approaches mentioned earlier are illustrated. Kevin Smith and Jayme Renfro's essay takes a 30,000-foot view of public administration from a biological perspective, illustrating the category "human nature or evolution and the roots of bureaucracy as a phenomenon." They juxtapose different visions of the bureaucrat: Adam Smith's, Herbert Simon's, and Charles Darwin's. They present their argument that the Darwinian bureaucrat is preferable to the other models. Smith and Renfro argue that the "evolutionary hypothesis" improves the predictive power of existing theoretical frameworks by recognizing the presence and importance of "universal predispositions." As they write, the key to understanding "Darwin's bureaucrat" is recognizing that the fundamental question driving behavior is, "How will this look to others?"

One article specifically explores government decision-making processes in Russia regarding doping athletes to prepare them for international competition. The essay adopts a Foucauldian perspective. Andrey Makarychev and Sergey Medvedev detail the process by which Russian athletes were doping in the sports sphere of which they were part. Foucault's biopolitics meets Russian sports and its bureaucratic underpinnings. This represents the second aspect of biology and public administration: "human nature or biology as bases of decision-making and the operation of bureaucracy."

The other essays focus on biology, politics, and public policy. The first essay explores evolutionary logic in the analysis of policy. Here, the focus is on examining the value of treating policies as species and adapting evolutionary logic to this metaphor or analogy. Samantha Mosier notes that empirical testing of the model will be difficult, but she concludes her essay with the comment that: "the framework may ultimately explain how policies emerge, change, and migrate by connecting knowledge *of* the process with knowledge *in* the policy process."

Two essays explore substantive policy proposals that have linkages to biological issues. Shane O'Mara and John W. Schiemann use biological knowledge to explore the value of torture as a technique for gathering information from humans. They believe the confidence that torture is verified as a useful technique and has a biological basis is misplaced. They catalog the reasons for their contention and add to the literature on torture and its efficacy (or lack thereof).

William Brandon and Zachary Moore consider means of keeping Social Security in the United States solvent over a longer time frame, given the predictions of when the program will run short of funding under the current framework. Given the relationship of Social Security (and Medicare) to people's biological health, this is a key issue to explore. They offer for consideration a "shared pain" approach to funding the program. This would include recalculating the current cost-of-living adjustment by adopting the chained consumer price index for all urban consumers. This approach would reduce the adjustment for inflation and thus reduce program expenditures to keep Social Security solvent over a lengthier period of time than is currently predicted.

Call to action

The essays in this volume speak not only to the essentiality of an interdisciplinary approach to public administration and public policy from a theoretical perspective, but also to how such an approach can improve our understanding of the day-to-day decision-making of individual bureaucrats as well as the crafting of public

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policy. Indeed, it should be of little surprise that the flagship journals in political science (*American Political Science Review*), public administration (*Public Administration Review*), and public policy (*Policy Studies Journal*) have been devoting more space to interdisciplinary research with theoretical frameworks grounded in the evolutionary and biological sciences.

Whether scholars working in the fields of public policy or public administration choose to adopt a more evolutionary approach (Smith and Renfro) or a more biological approach (O'Mara and Schiemann and Brandon and Moore), or both (Mosier), we believe their contributions will be the better for it. The essays in this volume theoretically and empirically demonstrate the connection and predictive power of an interdisciplinary approach to the study of human behavior in the public environment. Indeed, the public aspect is central to Smith and Renfro's notion of Darwin's bureaucrat, whose decision-making process is driven by the question "How will this look to others?"

On the one hand, it is perhaps disappointing that more than 30 years have passed since Gulick's plea, and we are still pushing for a more biological approach to the study of public policy and public administration (and it has been more than 20 years since the publication of E. O. Wilson's classic *Consilience*[25]). On the other hand, the essays presented in this volume demonstrate the considerable progress that has been made on this front. The field has advanced beyond single articles and book chapters published sporadically across the discipline to entire edited volumes.[26,27] We encourage scholars to continue to push in this regard, looking for ways in which a biological or evolutionary approach can improve existing models of public policy and public administration.

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