

Cleveland State University
EngagedScholarship@CSU



ETD Archive

2010

To Reframe a Constitution: Public Service in a Consumptive State

Steven T. Salmi
Cleveland State University

Follow this and additional works at: <https://engagedscholarship.csuohio.edu/etdarchive>

 Part of the [Urban Studies and Planning Commons](#)

How does access to this work benefit you? Let us know!

Recommended Citation

Salmi, Steven T., "To Reframe a Constitution: Public Service in a Consumptive State" (2010). *ETD Archive*. 260.
<https://engagedscholarship.csuohio.edu/etdarchive/260>

This Dissertation is brought to you for free and open access by EngagedScholarship@CSU. It has been accepted for inclusion in ETD Archive by an authorized administrator of EngagedScholarship@CSU. For more information, please contact library.es@csuohio.edu.

TO REFRAME A CONSTITUTION:
PUBLIC SERVICE IN A CONSUMPTIVE STATE

STEVEN T. SALMI

Bachelor of Liberal Arts
The Evergreen State College
September, 1988

Master in Public Administration
The Evergreen State College
September, 1995

Submitted in partial fulfillment of requirements for the degree
DOCTOR OF PHILOSOPHY IN URBAN STUDIES AND PUBLIC AFFAIRS

at the
CLEVELAND STATE UNIVERSITY

July, 2010

© COPYRIGHT BY STEVEN T. SALMI 2010

This dissertation has been approved
for the College of URBAN AFFAIRS
and the College of Graduate Studies by

Dissertation Chairperson, Professor Camilla Stivers, Ph.D.

College of Urban Affairs, Date

Professor Jennifer K. Alexander, Ph.D.

College of Urban Affairs, Date

Professor Nancy Grant, Ph.D.

Department of Public Administration and Urban Studies,
The University of Akron, Date

To Cindy, Jason, McKenzie and Rikki

TO REFRAME A CONSTITUTION:
PUBLIC SERVICE IN A CONSUMPTIVE STATE

STEVEN T. SALMI

ABSTRACT

This normative analysis builds upon Ulrich Beck's world risk society theory to argue that the United States is making a shift of revolutionary proportions from an administrative state to a consumptive state. Public administration theory is assessed for its ability to address a consumptive state's unprecedented dynamics, e.g., accelerating technoscientific development and mega-hazards such as global warming. Qualitative evidence suggests that the field's adaptability has been limited by a continued, if generally unacknowledged, embrace of obsolete normative commitments such as to a politics-technoscience dichotomy, contempocentrism, and overconsumption. The sustainability movement, a discourse coalition with roots largely outside public administration, is presented as having the greatest potential of transcending the field's limitations if it avoids cooptation by a technocratic mindset. Institutional implications of knowledge production are critiqued and reforms suggested. A new school of thought is sketched – sustainable public service – that imports sustainability principles into public administration education.

TABLE OF CONTENTS

	Page
ABSTRACT	v
LIST OF TABLES	vii
LIST OF FIGURES	viii
CHAPTER	
I. INTRODUCTION	1
II. WORLD RISK SOCIETY THEORY	15
III. ADAPTATION TO ACCELERATING CHANGE	52
IV. TWO KEY NORMATIVE FOUNDATION STONES	85
V. CONSUMPTION AND COMMODITIZATION	104
VI. CONSUMPTIVE CITIZENSHIP & INSTITUTIONAL CHANGE	124
VII. THE RISE OF A CONSUMPTIVE STATE	151
VIII. CONTINGENCIES OF REVOLUTIONARY ACTION	171
IX. SEE NO REVOLUTION, HEAR NO REVOLUTION	195
X. THE SUSTAINABILITY MOVEMENT: AN OVERVIEW	234
XI. SUSTAINABILITY FOR WHOM?	254
XII. TOWARD A SUSTAINABLE PUBLIC SERVICE	282
GLOSSARY	309
END NOTES	320
REFERENCES	340

LIST OF TABLES

Table

I.	The nine characteristics of industrial society and risk society hazards	18
II.	Politics and subpolitics in simple and reflexive modernity	46
III.	Baudrillard's phases of the image applied to the Kyoto Protocol	82
IV.	Driving forces behind environmental destruction	98
V.	Global consumption classes	106
VI.	Commodity potential of basic needs	111
VII.	Linkage between personal and professional consumptive practices	142
VIII.	Philosophical characteristics of administrative and consumptive states	162
IX.	Institutional responsiveness and governance gaps: four extremes	177
X.	Eras in American public administration	197
XI.	Risk society hazard characteristics, ranked according to prominence within public administration discourse	205
XII.	Philosophical underpinnings of sustainability schools of thought	260
XIII.	Interaction between sustainability schools and spheres of action	266

LIST OF FIGURES

Figure

1. The consumptive citizenship feedback loop.....137
2. Public administration's theoretical triad.....202
3. The sustainability movement's theoretical triad.....256

“A new era has come upon us like a sudden vision of things unprophesied and for which no polity has been prepared.”

— Woodrow Wilson, 1901

CHAPTER I

INTRODUCTION

In the 1980s Dwight Waldo argued that more attention needed to be paid to the rise of a postindustrial society. He insisted that this shift would “affect public administration as profoundly as did the arrival of industrialism” (1984, lvii). A generation of thinkers has, in effect, responded to Waldo's call. Revolutionary rhetoric is trendy, with the literature rife with post-isms, reinventions, and refoundings.

Charles Goodsell has lauded public administration's intellectual life as “animated, feisty, energetic, lively, and loudly argued” (1995, ix). Others have noted, however, that a lively conversation does not guarantee the ability to transcend the problematic aspects of industrial society, which is also referred to as modernity. “(W)e are unable to think ourselves out of a paper bag,” warns Ralph Hummel. “For, literally, to escape means to fight what we have become; but what we have become determines that the only way we can fight to escape is to use the tools of modernity itself” (1994, 265).

If public administration is indeed the “identified patient” of democracy's dysfunctions (McSwite 1997, 10), then the direction of the field in a postindustrial political economy arguably takes on an importance well beyond its modest plot of land in the sprawling intellectual suburbia of contemporary American scholarship.

A major theme in recent public administration theory is that better understanding a postindustrial order requires the field to develop a higher level of reflexivity about its normative assumptions. For example, O. C. McSwite¹ has argued that too many of the field's assumptions, “despite their centrality to the discussion, remain implicit, undisclosed, and undiscussed” (1997, 2).

This essay focuses on an area that has been under-discussed, despite its central importance in a postindustrial society: the insidiously powerful relationship between public administration, technoscientific change, and consumption.

SUMMARY OF ARGUMENT

Evidence is presented that the U.S. is making a shift of revolutionary proportions from an administrative state (Waldo 1984) to a consumptive state. This new state is dominated by a world risk society (e.g. Beck 1992a; 2009) of unprecedented hazards that result from accelerating technoscientific development and overconsumption. A focus of discussion is global warming,² which is presented as an archetypal mega-hazard. The transition to a consumptive state can result in widening governance gaps between the scale, speed, and complexity of global warming and the polity's ability to respond to it. Failure to close these governance gaps could be devastating, both in the direct harm that results as well as a decline in the legitimacy of democratic forms of governance.

American public administration may be only one actor in a complex global drama, but it does possess a modicum of power through its regulatory authority, access to technoscientific knowledge, and consumptive discretion. This power, which often manifests in seemingly mundane professional rituals by practitioners as well as theorists,

can either support or resist adequate responses to global warming.

The field will not rise to the challenge without making a paradigm shift in its theory and practice. I argue that, despite the diversity in public administration's scholarly schools of thought, the field is dominated by an orthodoxy. Challenging it requires debunking a central tenet of American administrative theory for the last century: that the focus should be on more effectively administering the U.S. constitution rather than reframing it (Wilson 1887; Rohr 1986). This, in turn, means coming to terms with the field's significant, if often masked (Adams and Balfour 2009), role in the remaking of the constitutional order – often without democratic consent – through its facilitation of technoscientific development and related consumptive practices.

The sustainability movement could play a leading role in helping public administration transcend its dangerously obsolete orthodoxy. Indeed, this movement – which has received little attention within public administration – could catalyze the most significant changes in a century to the field's theory and practice.

Alas, the embrace of sustainability could also lead to a mere facelift of the field's orthodoxy that has the hyperreal appearance of being paradigm-busting but perpetuates maladaptive behavior. Which road public administration travels down could be determined by which of three philosophical branches of the sustainability movement rises to the fore: technocratic, democratic, or ecocentric. I analyze how public administration marginalizes sustainability discourse, particularly in less technocratic forms. How might the field privilege more democratic and ecocentric forms of sustainability? Toward that end, a new school of thought is sketched: sustainable public service.

This analysis extends the argument of Waldo (1984, 2007) that even the field's

most mundane practices are grounded in value-laden assumptions. These can add up to a theory of state, because they invariably address what Waldo itemized as the five great problems of political philosophy: Who should rule? Should there be a separation of powers? What should be the criteria for action? Should an emphasis be placed on centralization or decentralization? Finally, what is the nature of the Good Life?

A major feature that distinguishes this essay from other reassessments of administrative state theory (e.g., Rosenbloom and McCurdy 2007) is that I give significant weight to Waldo's last question. Most notably, how do assumptions about what constitutes the Good Life, when translated into consumptive practices spurred by technoscientific development, influence the character of the state – and public administration? I argue that exploring these questions is pivotal to the field's scholarship remaining relevant in the dramatically different political economy of the 21st Century.

RESEARCH FRAMEWORK

As with *The Administrative State* (Waldo 1984), this essay is grounded in the logic of critique.³ My argument draws heavily from a variant of critical theory, a body of thought that has established a modest but sturdy foothold in the field's discourse (e.g., Denhardt 1981b; Jun 1997; Box 2008). As such, the explicit goal of this essay is to facilitate social change by transcending a "false consciousness" (Fay 1987, 28) on the part of scholars and practitioners. The intent is to go beyond adding to the "accumulated information" of scholarship, and instead expand "the capacity for effective action" (Senge et al. 1999, 421). In other words, this approach embraces praxis – the linking of theory and practice (Denhardt 1981b). A key aspect of this approach can be seen in

Chapter XII, which links the development of sustainable public service theory with institutional change in the scholarly knowledge production system.

This essay attempts to link *political theory* and *consequential political theory*.

Political theory is developed by scholars operating at a distance from the practice of public administration. In contrast, consequential theory is

recognized contemporaneously or subsequently as related importantly to political reality and capable of generating belief and action, is characteristically produced by 1) a person not directly engaged in government but close enough to it for first-hand knowledge, and 2) a person not by intention “theorizing” but rather seeking solutions to problems judged to be important and urgent. “Political theory” is in a sense a by-product; it is, on the whole a judgment of history, a label subsequently affixed. (Waldo 1984, xxxiii)

On the one hand, this essay argues that public administration theorists have not caught up with important consequential theories from a school of thought I refer to as the sustainability movement. On the other hand, those consequential theories are analyzed as a means of situating them within public administration’s political theory.

An *open-source* approach to theory development is emphasized. “Rather than divide ourselves into theoretical schools we should consider it all as ‘source-code’ to be improved upon, or incorporated into each administrator’s practice, adopting and adapting according to the pragmatic demands of the moment” (Little 1999, 132). This type of analysis should not be confused with a multiple-paradigm approach (Hassard 1995). As McSwite (2002) has rightfully argued, one must ultimately make a paradigmatic commitment, and this essay does – to a variation of Ulrich Beck’s world risk society theory. However, Beck’s theory is noteworthy for its *both-and* theoretical eclecticism.

I conclude this essay by proposing a new school of thought. The goal is not to copyright the “one best way” to view a postindustrial order or even to reduce the level of

incommensurability between the field's major schools of thought, but rather to deepen the dialogue by asking an unusual set of Socratic questions. I would consider this essay a success if it "somehow changed the conversation (the 'discourse,' if you will) in a direction that comes to make sense to me" (Stivers 2000b, 133). This approach is inspired by Mary Parker Follett's (1918, 1924, 1965) notion of "integration."⁴

Interdisciplinary approach used in analyzing technoscience and consumption

This essay attempts to unmask and critique public administration's normative foundations as they relate to technoscientific development and consumption. A central argument is that the field's ability to adequately respond to a world risk society and consumptive state will depend upon the degree to which it redoubles efforts to follow Waldo's advice: "(I)f the demands of present world civilization upon public administration are met, administrative thought must establish a working relationship with every major province in the realm of human learning" (1984, 203).

This essay attempts to import into public administration fresh ideas from fields such as sociology, political science, psychology, and environmental studies. In addition, thinkers are often cited who are situated outside the discursive core of these fields because they best align with risk society theory. The interdisciplinary breadth of the essay inevitably constricts its depth, but I would argue that this is essential to the enterprise – and dovetails with the sweep of Beck's analysis, which is unusually broad even for his home discipline of sociology.

As a case in point, some attention is paid to risk assessment and management. However, it is beyond the scope of this essay to present a technical critique of leading

approaches in either subfield, but rather to look at emerging technoscientific risks from a normative political standpoint. The focus is on developing a theory of the state.⁵

To be more concrete, I attempt to unmask the prevalence in public administration of what Langdon Winner calls *technological somnambulism*, which he defines as the willingness to “sleepwalk” through the process of using technology to reconstitute “the conditions of human existence” (1986, 10). Winner argues that exploring the normative political underpinnings of technoscientific development is such a rare undertaking that those who do “are usually seen by their colleagues as dangerous cranks and radicals” (1986, 5). Indeed, a reviewer of an early version of this analysis wondered whether I was anti-technology. That is not the case. I am merely arguing for greater reflexivity regarding public administration’s relationship with technoscientific development, e.g., the perpetuation of a fossil fuel-based political economy.

Debates about the dangers of technoscientific development typically represent the modern-day equivalent of shoot outs at the O. K. Corral, except that the gun-strapping cowboys of the Wild West have been replaced with scientists wielding dueling calculators. These debates tend to focus on risk assessment. For example, what are the probabilities that the polar ice caps will melt – a potential side effect of heavy dependence upon fossil fuels? What can be done to avoid or mitigate the potential harm? What are the costs and benefits of various prevention and mitigation strategies?

These are important questions, but they tend to ignore or downplay normative concerns, such as how should the risks of a fossil fuel-based political economy be distributed between nations, generations, and species? Who should decide? Does the mere *possibility* of global, permanent, and irreversible environmental damage have

repercussions for the way democratic processes are structured? If so, what are the implications for American public administration?

To avoid getting bogged down in scientific debates, this essay is framed as a “what if?” exercise: Here we ask what if Beck is correct and global warming is an archetypal mega-hazard that threatens the stability of civilization? This responds to David Farmer’s (1999, 314) call for “what if?” exercises that cultivate moral imagination.

One could dismiss a pessimistic global warming scenario as what Gregg Easterbrook refers to as “collapse anxiety” – a fear that “the West cannot sustain its current elevated living standards and liberal personal freedom” (2003, 34). Collapse anxiety may manifest in worries about an environmental apocalypse as well as various other doomsday scenarios, such as a terrorist-induced calamity, economic depression, the return of fascism, or the depletion of crucial natural resources. Easterbrook argues that history is littered with instances of collapse anxiety that were ultimately proven wrong.

When newfangled Great Western Railway steam engines left London in 1844 to pull coaches at forty-five miles per hour, commentators expressed horror at such unnatural swiftness, while physicians urged passengers to avoid the trains on grounds that anyone moving so rapidly would surely suffocate. Now much greater speeds go unnoticed in daily events; we live, work, and try to relax surrounded by steel objects whizzing past, many of them guided by teenagers. (Easterbrook 2003, xiii)

Perhaps all of the risks I discuss will turn out to be misplaced fears. However, even under this scenario it is arguably a valuable exercise to assess the normative political aspects of potential risks. Think of it as the intellectual equivalent of wearing a seat belt when driving a car – useful protection in the event that an accident does occur.

It is also possible that my “what if?” analysis may understate the dangers of accelerating technoscientific development and overconsumption. Easterbrook provides a

cautionary example. In an earlier critique of environmentalist doomsaying, he argued that “current alarms about global warming appear exaggerated” (1995, 276). However, eight years later he toned down his rhetoric by pointing out that the build-up of greenhouse gases was the only form of pollution in the U.S. and European Union that had not shown a steady decline⁶ (Easterbrook 2003, 35). Then, three years later, Easterbrook (2006) declared that he had switched from “skeptic to convert.”

Consumptive discourse analysis used in assessment of literature

Public administration and the sustainability movement are critiqued using a *consumptive discourse analysis*. This approach is grounded in both relational and foundational perspectives about knowledge development. A consumptive discourse analysis draws from a relational approach because it assumes that an investigation into an intellectual field will conceal and dignify at the same time (Parker 2002). A discipline can never achieve complete knowledge; as knowing expands in a given area, other areas may be “forgotten.” Viewing knowledge development as a process of remembering, forgetting, and the production of ignorance can be a valuable tool for unmasking the faux-revolutionary rhetoric that permeates public administration. “This might suggest, at least, the need to historicize our understanding of knowledge, particularly in an area which parades its breathless amnesia as an unique selling point” (Parker 2002, 46).

At the same time, consumptive discourse analysis has a foundational aspect. Scientific knowledge may be socially constructed, but empirically measurable phenomena such as environmental deterioration can, to a significant degree, be built upon a stable disciplinary foundation. Integrating constructivist and realist perspectives can

lead to a provocative conclusion: Parker's (2002) call for historicizing our understanding of knowledge has dangerous limits when applied to the unprecedented dynamics of a risk society and consumptive state. I reject his deterministic claim that "there is nothing completely new" under the theoretical sun (Parker 2002, 48). Assessing discourse is both a function of remembering what has been forgotten *and* recognizing new dynamics.

Maarten Hajer defines *discourse* as "a specific ensemble of ideas, concepts, and categorizations that is produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities" (1995, 60). Politics is seen as a battle for discursive dominance in which participants attempt to gain acceptance of their definitions. The effect of discourses is operationalized with the concept of *story lines*, which include metaphors, historical references, and appeals to collective fears or senses of guilt. *Discourse coalitions* are ensembles of story lines, the actors who speak them, and the practices in which the event is situated (Hajer 1995, 65).

Hajer distinguishes discourse coalitions from conventional political alliances, because the former can be much more fluid than the latter: "Story lines, not interests, form the basis of the coalition" (Hajer 1995, 66). I take a both-and approach by viewing story lines *and* interests as the basis of a coalition. This is done by assessing the relationship between discursive and consumptive practices. This builds on the risk society tenet that, when analyzing an issue such as global warming, consumptive practices can be as powerful of a political act as participating in a policy debate. Focusing on this interplay can shed light on why a hazard is or is not avoided.⁷

Consumptive discourse analysis offers an additional twist in its definition of discourse. Like Patricia Patterson (2000), I side with Foucault rather than Habermas by

focusing not only on speech itself but nonverbal forms of communication; and not just the expressions themselves, but the ways thinking and reacting create meaning.

As both a theoretical and practical matter, I want to know why we propose to talk, who shall talk, and who shall listen. And I want to consider why votes and talk, rather than attentiveness, listening, concern, emotion, and action should be the predominant measures of democratic engagement. (Patterson 2000, 687)

What is not said is as important as what is. This essay questions why there has been so much *discursive silence* in public administration regarding the dynamics of a world risk society and consumptive state, e.g., is it a sign of exclusion, withdrawal, or resistance?

When discussing the story lines of public administration thinkers, my aim is not to critique so much as to illustrate the “constituent elements in the very making of disciplinary knowledge itself” (Parker 2002, 38).⁸ I do not fully embrace the concept of memes (H. Miller 2000) because it rejects the existence of an autonomous liberal-humanist subject. However, viewing knowledge as a virus is arguably helpful because it raises questions about the rationality of knowledge development within an academic field. As a case in point: How can a brilliant, diverse, and iconoclastic cadre of scholars continue to accept with little questioning a set of assumptions that could do significant damage to their field of study and society in the brave new world of the 21st Century?

How public administration and sustainability literature was selected

Public administration and sustainability movement literature was selected for analysis with the goal of broadly representing major themes in each field. McSwite’s (1998) typology of public administration’s three major schools of thought was used as a template for selecting works to be discussed. By the same token, sustainability literature

was chosen with an eye toward exploring what I argue are this movement's three major philosophical branches and six spheres of action.

The hazardousness of drawing discursive boundaries around public administration should be acknowledged. An identity crisis has always hounded the field, in no small part because of its relatively fragmented body of knowledge (e.g., Bingham and Bowen 1994; Waldo 1968; Raadschelders 1999). Nevertheless, to make my literature review more manageable I focused on scholars whose works have appeared, or were reviewed, in public administration journals that give prominence to normative theory.⁹ The goal was not to present an empirically grounded literature search, but rather to offer an impressionistic sketch of the field's zeitgeist during the 1995-2009 period.

Much the same holds true of my review of sustainability literature. I began my research by collecting the works of public administration scholars who discuss sustainability story lines. Then I explored the sustainability literature outside the field. An emphasis was placed on analyzing prominent works by practitioners.¹⁰ Sustainability scholars were primarily drawn upon to add context to practitioner story lines.

Defining three key terms

A foundation stone of this analysis is the rejection of the conventional interpretation of *revolution* as involving fundamental institutional change, e.g., overthrowing a government. In a consumptive state, revolution can occur as a result of institutional inaction, e.g., a go-slow approach to global warming policymaking could result in the permanent redrawing of coastlines, climates, and disease vectors. In this new epoch, institutional facades are less important than the substantive impacts of

technoscientific development on people's lives and the health of the biosphere.

Invisible refers to two dynamics. An invisible hazard cannot be detected by a layperson without the mediation of science or technology. Global warming is a partially invisible hazard – we may notice lighter snow packs but not have the expertise to assess whether this is weather variation or long-term climate change. The more invisible the hazard, the slower the social learning needed to respond to it. Invisible also refers to a problem not “seen” because it resides outside of a social group's¹¹ discursive core.

Cooptation is “the process of absorbing new elements into the leadership or policy-determining structure of an organization as a means of averting threats to its stability or existence” (Selznick 1966/1949, 13). In an academic discipline, paradigm-challenging story lines can be filtered to the point where they are no longer effective in responding to emergent hazards such as global warming. At issue is *not* that Follettian integration dilutes a story line's purity, but that social learning fails to keep pace with accelerating complexity. This is particularly problematic for a relatively invisible hazard.

ESSAY STRUCTURE

Chapter II offers an overview of Beck's story line. Global warming is a focus of this and subsequent chapters because it is shown to be an archetypal risk society hazard.

Chapter III introduces a number of concepts to assess the ability of social groups to keep pace with accelerating technoscientific development. Chapter IV then discusses two key normative assumptions that retard the field's ability to address resulting hazards.

In Chapter V the concept of commoditization is used to explore how consumptive practices can have a central role in a polity's normative political direction. Chapter VI

then assesses the potential of consumptive citizenship to catalyze paradigm-challenging institutional responses to global warming.

Chapter VII argues that the rise of a risk society dovetails with the eclipse of an administrative state by a consumptive state. Chapter VIII presents a more contingent approach to analyzing the nature of revolutionary action than found in risk society theory.

Chapter IX broadly assesses why public administration theory has yet to meaningfully address the dynamics of a risk society and consumptive state. Despite the field's recent burst of theoretical diversity, I argue that it operates within a first modernist paradigm that has become obsolete – and a danger to democracy.

Chapter X makes the case that the sustainability movement has the potential to better respond to the challenges of a world risk society and consumptive state than public administration's first modernist orthodoxy. However, Chapter XI argues that sustainability story lines are vulnerable to cooptation by technocratic forces.

Chapter XII sketches a new school of thought: sustainable public service. The theoretical terrain of this school is explored and some practical ways are brainstormed to integrate it into public administration education.

This essay represents a first step toward the development of a consumptive state theory. Given the exploratory nature and interdisciplinary breadth of this exercise, it would obviously benefit from additional development. The key goal here is to begin cultivating dialogue on a topic that I contend should be of central importance to American public administration in the 21st Century.

CHAPTER II

WORLD RISK SOCIETY THEORY

What happens to democratic processes – and public administration’s role – when technoscientific development accelerates? This question is provocatively addressed by *world risk society theory*. This school of thought, which has been led by German sociologist Ulrich Beck, has generated robust discussion among European sociologists.¹

Even though Beck has published almost a dozen books in English since the early 1990s, risk society theory has received little attention within American public administration. This will be discussed in greater detail in Chapter IX, but for now I would suggest that this is an unfortunate oversight because Beck offers crucial insights into the invisible revolution the field will be confronted with in the years ahead.

This chapter presents an introduction to Beck’s work. The first section summarizes risk society theory, with a focus on the dramatically different characteristics of emergent hazards. I then situate risk society theory within social science discourse. The third section fleshes out the role technological determinism and risk play in Beck’s story line. The fourth section develops a key theme of this essay: the characteristics of ecological crises. The fifth and sixth sections discuss the dynamics of globalization and the demise of the Fordist regime, respectively. The seventh section analyzes the role of

science in the “subpolitics” of social change. A final section summarizes key implications for public administration.²

OVERVIEW OF WORLD RISK SOCIETY THEORY

A key tenet of world risk society theory is that technoscientific development invariably undercuts the foundations of industrial society. The basic conditions of this *first (or simple) modernity*, including a nation-state-centered polity, class antagonisms, and an economy steeped in the linear logic of technical rationality, are dissolved by the “fabricated uncertainty” of a *second (or reflexive) modernity* (Beck 1999, 19). In a risk society, the ideas of controllability, certainty, and security – which are central to first modernity – collapse like an iceberg into a warming sea of unanticipated consequences.

The collective patterns of life, progress and controllability, full employment and exploitation of nature that were typical of this first modernity have now been undermined by five interlinked processes: globalization, individualization, gender revolution, underemployment and global risks (as ecological crisis and the crash of global financial markets). The real theoretical and political challenge of the second modernity is the fact that society must respond to all of these challenges *simultaneously*. (Beck 1999, 2; original italics)

All societies have faced dangers. What makes second modernity different is the unprecedented magnitude of potential impacts, as well as the speed with which they wash over society. Risks are driven by technoscientific development, whose often unforeseen side effects can lead to fundamental shifts in the concept, place, and media of politics (Beck 1992a). Most notably, whereas industrial society has been marked primarily by the “logic of wealth production,” in a risk society the benefits of technoscientific development are increasingly overshadowed by hazards it creates that can cause widespread changes in society – without democratic consent (Beck 1992a, 19).

Characteristics of risk society hazards are dramatically different

Major hazards no longer result largely from nature or human ignorance, but from an explosion of technoscientific knowledge that functions as a Janus-faced source of risks and a key means to control them. “As the world gets more interconnected and more technologically advanced, it becomes more prone to systemic threats” (Beck and Willms 2004, 36). This dovetails with Charles Perrow’s (1984, 1999) argument that “normal accidents” – potentially catastrophic disasters such as nuclear power plant meltdowns – are an inevitable result of a reliance on complex technologies. However, Beck emphasizes the more macro-level, political implications of technoscientific development. He notes that for the first time in history, humans possess the power to create dangers that “cannot be socially delimited in either time or space” (Beck 1999, 19).

That last point is pivotal to understanding the importance of Beck’s theoretical contributions. He argues that whereas industrial society hazards have generally been localized in time (e.g., spanning a few years) and place (such as an individual nation), risk society hazards can be permanent, irreversible, and impact the entire planet. In addition, whereas industrial society hazards tend to affect humans directly, impact lower classes disproportionately, are visible to the average citizen and display relatively linear causation, risk society hazards have the opposite dynamics: They may impact humans only secondarily and regardless of class, tend to require science to make them visible, and can have complex and murky causation. Finally, whereas industrial society hazards may be relatively predictable and controllable through a centralized bureaucracy, risk society hazards can be unpredictable, uninsurable, and difficult to address through command-and-control mechanisms.

Global warming is an archetypal world risk society hazard because it fits all nine characteristics listed in Table I. In contrast, perennial hazards such as murders, old-age illnesses, and cyclical unemployment fit most or all industrial society characteristics.

TABLE I. **The nine characteristics of industrial society and risk society hazards**

<u>Industrial society hazards</u>	<u>Risk society hazards</u>
Caused by nature or human ignorance	Caused by technoscientific development
Localized in time, e.g., one generation	Multi-generational and possibly irreversible
Localized in place, e.g., within nations	Can impact entire planet
Linkage between class and inequality	Delinkage between class and inequality
Impacts humans directly	Impacts humans secondarily
Visible to laypersons without science	Requires science to make “visible”
Relatively linear causation	Complex and murky causation
Predictability allows “insurance”	Unpredictability destabilizes insurance
Amenable to centralized responses	Rise of decentralized “subpolitics”

Second modernity’s fundamental shifts in the characteristics of risk raise a variety of thorny normative questions. For example:

Should risks and their attendant costs be shared among certain categories of citizens or among residents of a certain place? How can global risks ever be shared? What does it mean when the socialization of risk occurs across generations? (Beck 1999, 16)

These questions lead to a paradox of a risk society: At the moment when the danger of hazards has grown to an unprecedented scale, their complexity has made them “increasingly inaccessible to attempts to establish proof, attributions and compensation by scientific, legal and political means” (Beck 1999, 150).

Overlap between first and second modernity results in hybrid hazards

The transition to second modernity is gradual, and the dynamics of industrial and risk societies overlap. Second modernity began to develop in the middle of the 20th Century on a number of different time scales throughout the world. This development is difficult to analyze partly because first and second modernities “exist simultaneously, and completely interpenetrate each other” (Beck and Willms 2004, 31). However, this is not to suggest that the shift to a second modernity results in evolutionary, “additive” changes that allow the continued viability of sociological theory built primarily around the dynamics of first modernity (Beck and Willms 2004, 39).

Beck argues that contemporary systems of governance, which were generally designed to deal with the smaller, more tangible and less complex problems of industrial society, have not caught up with the radically different characteristics of risk society hazards. Indeed, fledgling risk societies have yet to develop a vocabulary for discussing emergent hazards (Beck 1999, 150). This can result in a policy paralysis that deepens public distrust in a polity’s ability to provide for its citizen’s safety and security. That distrust fuels *individualization*, which Beck defines as the institutionalization of individualism, whereby people feel that they are on their own in coping with potential hazards, such as obsolescence of their career due to automation, cancer-causing substances in food, or even the decline of social norms such as marriage.

Contemporary hazards may often possess characteristics rooted in both epochs. A case in point is the Al-Qaeda terrorist campaign. The Sept. 11, 2001 attacks fit industrial hazard characteristics in that they were localized in time and space, had a linear causation (easy-to-define “bad guys” steered airplanes into the buildings of “good guys”),

the results were highly visible to laypersons without the mediation of experts, and the devastation largely impacted humans rather than the natural world. Indeed, the effect of the attacks on the American psyche may have been heightened considerably because the event had all of the tangible elements of an action movie. This is quite the opposite of global warming, which helps explain why it has not shown nearly as much of a presence in American popular culture.

On the other hand, the Al-Qaeda attacks are also a dramatic example of a world risk society subpolitical actor using unconventional means to challenge the institutions of modernity. Despite aggressive attempts by the U.S. government to prevent future attacks, it is questionable whether centralized responses can fully guarantee the public's safety. In addition, the sheer unpredictability of additional attacks creates a Russian roulette dynamic that undercuts the stability of society's insurance mechanisms.

The end of nature, tradition, and the provident state

Along similar lines as Beck, Anthony Giddens (1998) argues that a risk society is marked by the end of nature and tradition. The end of nature refers not to the disappearance of the natural environment, but that there are few, if any, aspects of it not managed by humans. The end of tradition reflects a postmodern condition where traditional social roles collapse, e.g., a woman is no longer expected to get married, have kids, and stay in the home. These two factors lead to a change in the nature of societal risks. There is an eclipse in relative importance of *external risks* such as dismemberment and unemployment, "accidents of fate" that can be fairly accurately predicted via actuarial tables of the insurance industry and the welfare state (Giddens 1998, 28).

A world which lives after nature and after the end of tradition is one marked by a transition from external to what I call *manufactured risk*. Manufactured risk is risk created by the very progression of human development, especially by the progression of science and technology. Manufactured risk refers to new risk environments for which history provides us with very little previous experience. We often don't really know what the risks are, let alone how to calculate them accurately in terms of probability tables. (Giddens 1998, 28; original italics)

Insurability is a major theme in risk society theory. Drawing on the work of Francois Ewald, Beck (1996, 1999) suggests that industrial society can be seen as a system of comprehensive insurance – a *provident state*. This system transformed the dangers of pre-industrial society (such as famine, war, plague, and natural disasters) into calculable – and thus more predictable and controllable – risks. Governmental services such as unemployment insurance, restaurant inspections, bank-deposit insurance, public housing, airline regulations, and disaster-relief programs represent attempts to reduce the likelihood of potential hazards or to minimize negative impacts they may have on individuals, groups, or society. First modernity is built around the Weberian principle of technical rationality, which assumes that “all side effects of industrialization and rationalization are predictable and controllable” (Beck and Willms 2004, 30).

This contrasts with a risk society, where the expectation of safety and security is eroded by technoscientific developments such as nuclear power and bioengineering, which effectively operate beyond the limits of insurability (Beck 1999). This is because worst-case risk scenarios would be far too costly to fully cover the financial losses. Beck notes that while it is taken for granted that automobile owners purchase insurance, corporations insist that nascent industries would never succeed if they were required to obtain adequate insurance for dangerous new technologies. Humanity and the biosphere are thus turned into a giant laboratory experiment – but with no one in charge.

THEORETICAL CONSIDERATIONS

World risk society theory does not fit neatly into existing sociological categories, in no small part because Beck has essentially adopted an open-source approach to theory that is in the same ballpark as that proposed by public administration scholar John Little (1999). This is reflected in Beck's (1997) argument that a key distinction between industrial and reflexive modernity is the utility of *either-or* versus *both-and* thinking.

A case in point is Beck's (1999) effort to develop a synthesis of the realism-constructivism debate that attempts to avoid the cooptation of realism by technical rationalism, as well as constructivism's difficulty in defining what "is" and "is not." Because contemporary risks are often invisible to everyday perceptions, unlike many traditional political issues they must be brought into consciousness. Without "objectively knowable facts" about ozone depletion, global warming or economic globalization, risk society theory would have no foundation. At the same time, a social-constructivist perspective is needed to make visible a proposed policy response to a hazard that, while packaged in the "objectivity" of technical rationality, is nevertheless heavily colored by the interests, values, and perceptions of its proponents.

If I have to be a realist (for the moment) in order to open up the social sciences for new and contradictory experiences of the global age of global risks, then I have no qualms about adopting the guise and language of ("reflexive") "realist." If constructivism makes a (positive) problem shift possible and if it allows us to raise important questions that realists do not ask, then I am content (for the moment at least) to be a constructivist.
(Beck 1999, 134)

Beck could be categorized as a latter-day critical theorist, but he deviates from the social-class focus of much neo-Marxism, as well as the Habermasian emphasis on communication. Beck's brand of reflexivity "is not to be abstractly located in some sort

of hypothetical ideal speech situation,” but rather in a new phase of modernization where an individualization process creates opportunities for restructuring social arrangements, such as science’s monopoly on rationality (Lash and Wynne 1992, 2).

In another departure from neo-Marxism, Beck insists that efforts to “install brakes and a steering wheel” on technoscientific development could be best done by abandoning what he describes as an obsolete strategy of attempting to reassert centralized political control (1992a; 180, 231). A prime reason is the rise of individualization, which represents social disembedding without reembedding. For the first time in history, “the individual is becoming the basic unit of social reproduction” (Beck and Beck-Gernsheim 2001, xxii). This dynamic has undercut the utility of class, because this concept cannot explain growing inequalities that do not have collective ties. Note that Beck’s argument should not be conflated with neoliberal economics, whose normative commitment is to the ideal of the autarkic self. He argues that individualization is fueling social inequality.

Modernist ‘zombie categories’ critiqued without fully embracing postmodernism

An important corollary to the above argument is that Beck (2001) turns upside down the Marxist view that material conditions determine people’s consciousness. Instead, he argues, people’s consciousness has changed more than the institutions in which they inhabit – and the categories that social scientists continue to embrace.

For example, Beck describes the “simple, linear, industrial modernization of classical sociology” (e.g., Durkheim, Weber, Parsons, and Luhmann) as obsolete because “the unforeseen consequences of functional differentiation can no longer be controlled by further functional differentiation” (1999, 2). Sociology has been slow to acknowledge

that the conceptual categories of industrial society have become *zombie categories* – that is, concepts that are dead in the practitioner realm but still live on in scholarly journals. More prosaic zombie categories include household, family, and class (Beck and Beck-Gernsheim 2001, 203), but Beck has been particularly critical of the assumption that society is “contained” in nation states defined primarily by their territorial borders – a perspective he refers to as “methodological nationalism” (Beck and Willms 2004, 13). In addition, sociology’s failure to recognize the importance of emerging mega-hazards such as global warming reflects its hesitance to adopt a more interdisciplinary approach that fully links the social, economic, political, and ecological (Beck 1999).

Beck draws upon postmodernist thinking to make the above argument, e.g., he uses Bauman’s concept of “liquid modernity” to argue that whereas first modernity was “predominantly a logic of structures,” second modernity is “largely a logic of flows” that results in the pluralization of boundaries, e.g., between societies, or between humans and nature (Beck and Willms 2004, 27). However, Beck insists that modernity has not ended, but rather has moved into a new, albeit revolutionary phase.

Radical social change has always been part of modernity. What is new is that modernity has begun to modernize its own foundations. This is what it means to say modernity has become reflexive. It has become directed at itself. This causes huge new problems both in reality and in theory. The first modernity depended, tacitly but crucially, on many non-modern structures for its clarity and stability. When modernization begins to transform those structures, and make them modern, they cease to be usable foundations. This is what distinguishes the second modernity. (Beck and Willms 2004, 29)

Postmodernist theory can help prune the “overarching and unsustainable claims which the first modernity made for universality” (Beck and Willms 2004, 203), but it is not an improvement over functionalism because it “cannot answer very basic questions about

how and in what ways everyday lives and professional fields are being transformed” (Beck 1999, 133). The “crisis nature” of a second modernity requires the deconstruction of modernist theory *and* its reconstruction (Beck and Willms 2004, 26).

Another example of Beck’s both-and approach is that it lays out challenges of breathtaking difficulty, yet it also suggests the possibility that reflexivity could transform contemporary politics. He rejects “negative fatalism” as the flip side of the naïve belief that “progress” is inevitable because it is based on an overly linear logic (1999, 86).

(H)opelessness is ennobling and the advantages of wallowing in superiority, while at the same time being relieved of all responsibility for action, are not to be underestimated. However, if the (risk society) theory sketched out here is correct, then the theorists of doom can begin to rejoice, because their theories are wrong or will become so! (Beck 1999, 86)

A tension in Beck’s work is an affinity for bold, broad-brush prescription that mixes with an apparent desire to wrap his story line in the methodological lab coat of mainstream sociology. His earlier work suggests that sociology can be a tool for social change, but Beck more recently argued that the field’s job is not to make “pope-like theoretical proclamations, but is to offer “empirical observations, to document them clearly, and then, by means of these results, and a heightened sensibility, and a methodological approach, to make a developing reality clear and graspable” (Beck and Willms 2004, 35). This could be read as a form of silence – a partial retreat from prescription to description to protect his standing in a discipline dominated by empiricism.

TECHNOLOGICAL DETERMINISM AND THE NATURE OF RISK

Beck presents an eclectic assessment of the role of technology and science as it relates to risk. At first blush he might be considered a “hard” technological determinist,

but initial impressions can be deceiving. *Technological determinism* is the degree to which science and technology are viewed as determining the course of history (Smith and Marx 1994). This concept can be placed on a continuum, with hard and soft forms of determinism (Heilbroner 1994a; 1994b). Hard technological determinism is epitomized by the pronouncement of Karl Marx, “The handmill gives you society with the feudal lord; the steam-mill, society with the industrial capitalist” (Marx 1963, 109). At the other end of the spectrum are soft technological determinists, who argue that technology may be a mediating factor in social change but its ultimate impact may be driven more by political, economic, and cultural forces than the inherent nature of the technology itself.

Beck would not fit on the soft end of the technological determinism spectrum, because his analysis has commonalities with that of historian Daniel Boorstin’s (1978), who posits that there are two distinct kinds of revolutions: political and technological ones. While Boorstin did not minimize the magnitude of political revolutions, he argued that technological change can be more powerful in the long run because political change operates on a pendulum, where even the mightiest revolutions are eventually undone by counter-revolutions. Technoscientific revolutions, in contrast, are rarely unplugged. As such, they function as a Pandora’s Box of irrevocable change.

Boorstin did not distinguish between technological epochs. A theorist who did was Neil Postman (1993), who argued that societies could be categorized into three types: tool-using cultures, technocracies, and technopolies.³ Beck’s analysis fits between Boorstin’s and Postman’s, and is in the vicinity of Langdon Winner’s (1986). A central premise of risk society theory is that technoscientific change is the driving force behind revolutionary political changes. At the same time, Beck would presumably

criticize Postman's typology for the same reasons he rejects Max Weber's (1958) image of the bureaucratic "iron cage." Beck (1999) describes the latter as failing to allow for the possibility that the cage could open up. It would thus be a mistake to categorize Beck as antagonistic toward technoscientific development per se. Risks technoscientific development creates cannot be eliminated from postindustrial life, but

what we can and indeed should achieve is the development of new institutional arrangements that can better cope with the risks we are presently facing; not with the idea in mind that we might be able to regain full control, but much more with the idea in mind that we have to find ways to deal democratically with the ambivalences of modern life and decide democratically what risks we are willing to take. (Beck 1999, 108)

This will require more than "just lecturing people on values," which Beck describes as "putting a bicycle bell on a 747. You can tinkle warnings all you want and technology will continue roaring ahead on autopilot" (Beck and Willms 2004, 204). What is required is the reshaping of concepts and institutions – in both the scientific and political realms – so that the uncertainties of technoscientific development are better confronted.

Normative and temporal implications of risk shift radically

Beck's conception of risk transcends that of a risk science grounded in the explanatory logic of probabilities and cost-benefit analysis. Risk is not an instrumental concept but rather is laden with normative implications, e.g., it is both an institutionalized effort and a cognitive map "to colonize the future" (Beck 1999, 3). In first modernity risk management predicted and controlled the results of human action – and the unintended side effects of modernization. However, in second modernity the "fixed norms of calculability" of potential dangers lose their power to predict and control.

All of this becomes very evident with private insurance, perhaps the greatest symbol of calculation and alternative security – which does not cover nuclear disaster, nor climate change and its consequences, nor the breakdown of Asian economies, nor the low-probability high-consequences risks of various forms of future technology. In fact, most controversial technologies, like genetic engineering, are not privately insured. (Beck 1999, 4)

Risks are not actual destruction. Rather, they are a social construct that represents a “peculiar, intermediate state between security and destruction, where the *perception* of threatening risks determines thought and action” (Beck 1999, 135; original italics). Risks function as an “involuntary lottery of misfortune” that no one wants to win, but that is virtually impossible to avoid playing (1999, 141). This is because manufactured dangers are now integral to consumption habits. Yet risks are “essentially knowledge-dependent and tied to cultural perception, whether they are manifested as alarm, tolerance or cynicism” (Beck 1999, 143). Beck points to genetically modified food, which has been more heavily restricted in Europe than in the U.S. because of greater safety concerns. The political explosiveness of a risk significantly depends upon how it is handled by the state, e.g., is it eliminated or declared harmless? The potential for conflict does not reside in the risk per se, but whether the state’s response increases or decreases its legitimacy with the public (Beck and Willms 2004, 123).

Perhaps most provocatively, Beck argues that risk reverses the traditional relationship between past, present, and future. “The past loses its power to determine the present. Its place as the cause of present-day experience and action is taken by the future, which is to say, something nonexistent, constructed and fictitious” (Beck 1999, 137).⁴

THE CHARACTERISTICS OF RISK SOCIETY ECOLOGICAL CRISES

Beck's explicit linkage of technoscientific development and unprecedented ecological crises may very well be risk society theory's most dramatic departure from mainstream sociology. He argues that problems such as global warming can only be seen for what they are – potentially system-breaking hazards – by transcending the conceptual horizon of first modernity, which views environmental side effects as the result of accountable and calculable actions, and solvable through greater application of technical rationality. Maarten Hajer suggests that ecological crises most graphically display “the incomplete nature of the institutions of modernity” (1995, 38).

For non-sociologists it is easy to overlook the theoretical significance of (Beck's) argument . . . that sociological theory is essentially a product of industrial society. Hence nearly all of its conceptual tools are made to analyze the internal dynamics of industrial society but these tools do not help to get the ecological problem in focus, simply because the effective domination of nature is assumed in social thought. Beck, on the other hand, suggests that the special significance of the ecological crisis for social theory is that it shows the incapacity of the central institutions of industrial society to regulate this crisis. (Hajer 1995, 37)

A major theme of risk society theory is that environmental hazards are generally not the result of law-breaking renegades, but are the result of the laws themselves, which effectively normalize and legitimize destruction because of their inadequacy. This inadequacy is significantly related to the mismatch between the structure of contemporary governance and the different characteristics of risk society hazards.

This story line might be viewed as an attempt to expand sociology's discursive boundaries to include ideas that have taken root in other disciplines, particularly in the natural sciences. Beck's concern that ecological crises could become the central threat faced by a risk society is echoed by environmental studies scholars such as Lamont C.

Hempel, who argues that “(h)oles in the ozone layer, global climate change, swelling human population, toxic pollution, vanishing rainforests, overfishing, desertification, acid rain, mass extinction, and erosion of topsoil” are all “part of an interlocking set of slow-motion crises that may eventually surpass nuclear war as the most plausible threat to civilization on earth” (1996, 1).

Why global warming is an archetypal risk society hazard

If the projections of the Intergovernmental Panel on Climate Change (IPCC) turn out to be accurate (e.g., Pachauri and Reisinger 2007), global warming could have negative impacts that dwarf industrial society hazards in its scope, duration, complexity, unpredictability, and difficulty in addressing through traditional governance structures.

The failure to gain full international approval of the Kyoto Protocol on global warming illustrate how a nation state-based system of governance can be slow in responding to an international crisis (Flavin 1998; Luterbacher and Sprinz 2001; Victor 2001). Despite its potential dangers, global warming has yet to become a top-tier public concern in the United States (Guber 2003, 31; Greenberg 2004, 252; Pew Research Center 2009). According to risk society theory, this may be partly because global warming is relatively invisible to the layperson, unlike industrial hazards such as unemployment, smog, or crime. Furthermore, unlike an industrial-era scourge such as small pox, global warming arguably impacts humans less directly than natural systems – the latter of which are usually treated as an externality.

Like global warming, the depletion of the atmosphere’s ozone layer could be considered a risk society hazard. However, ozone depletion is considerably less

problematic because it has a fairly linear cause and effect, and thus can be addressed through much simpler policy mechanisms. Global warming is so complex that scientists and policymakers continue to debate the accuracy of computer models predicting the phenomenon, to say nothing of the even more difficult-to-establish environmental and economic outcomes of policy proposals designed to stop, slow, or mitigate its impacts.

It is no accident, however, that the insurance industry has called for aggressive responses to global warming because weather patterns could become so volatile and unpredictable that they might “bankrupt the industry” (Gelbspan 1998, 87). But even if there were a societal consensus on the dangers of global warming, traditional command-and-control governmental policymaking would likely fail to adequately curb greenhouse gases because their production is embedded in virtually all aspects of contemporary life.

The journal *Science* summarizes the scope of the policy challenges:

Fossil fuels account for most of the 6.5 billion tons of carbon . . . that people around the world vent into the atmosphere every year. . . . Industrialization has already raised atmospheric CO₂ levels from 280 to 370 parts per million, which is likely responsible for a large part of the 0.6C rise in average global surface temperature over the past century. As populations explode and economies surge, global energy use is expected to rise by 70 percent by 2020, according to a report last year from the European Commission, much of it to be met by fossil fuels. If projections of future use are correct and nothing is done to change matters, CO₂ emissions will increase by 50 percent by 2020. (Service 2004, 962)

The Kyoto Protocol has been viewed by many experts as only a first-step measure, e.g., its emission-reduction targets are “nominal” (Hasselmann et al. 2004, 1923), its time-frame short, and developing nations such as China – since 2007 the largest greenhouse gas producer (EIA 2010) – escape regulation (Revkin 2003a). The protocol called for industrial nations to cut their aggregate emissions by 5.2 percent below 1990 levels by 2012 (Gelbspan 2004, 3).

The speed with which the production of greenhouse gases is curbed could be crucial to slowing, let alone stopping, global warming because of the significant lag time involved. “In fact, even if the United States and all other nations reduced the growth rate of annual emissions to zero, the concentration of greenhouse gases would continue to rise for the rest of the century; and average global temperatures would increase in response” (Kennedy 2004, 917). More ominously, “Even a thousand years after reaching a zero-emission society, temperatures will remain elevated, likely cooling down only a few tenths of a degree below their peak values” (Allison et al. 2009).

A host of normative considerations are raised by the mismatch between the hazard characteristics of global warming and the capacity of industrial governance systems to address it. For example, how do you deal with a worldwide hazard within a nation state polity of lopsided power imbalances? The IPCC has projected that the

impacts of climate change will fall disproportionately upon developing countries and the poor persons within all countries, and thereby exacerbate inequities in health status and access to adequate food, clean water, and other resources. . . . In addition, poverty and other factors create conditions of low adaptive capacity in most developing countries. (Watson et al. 2001, 12)

One of the most poignant potential outcomes of global warming may be rising sea levels, which could inundate highly populated and poverty-plagued low-lying regions, e.g., tens of millions of people in Bangladesh could be displaced by 2100 (Watson et al. 1998; Social Learning Group 2001). Yet Bangladesh, like many vulnerable developing nations, has relatively little power to decide the fate of its homeland vis a vis developed nations. Is it morally acceptable for the U.S. – a nation containing roughly 5 percent of the world’s population – to hold effective veto power on an issue of such importance to the rest of the planet (e.g., by refusing to ratify the Kyoto Protocol)?

Note that whether global warming turns out to be as problematic as projected by the IPCC is irrelevant to the above story line. What matters is mounting evidence of the *possibility* of hazard so extraordinary that to ignore it would be ethically questionable . . . yet action may be necessary before a consensus develops on the nature of the problem and what to do about it. This is a classic conundrum of a risk society.

Other environmental hazards are often invisible to the layperson

Global warming may be too abstract and distant to be a worrisome hazard, but others can cut closer to home. William McDonough and Michael Braungart (2002, 3-5) argue that seemingly benign household items such as living room chairs, computers, and even baby toys may contain a witch's brew of potentially toxic substances.

Even isolated or low-tech cultures may be heavily impacted. For example, the Inuit Eskimos in Alaska are among the world's most contaminated populations regarding fat-soluble toxins such as mercury, DDT, and PCBs. This is because their diet depends on marine carnivores at the top of the food chain. Toxins also show up in the breast milk of American women, where a chemical profile can provide an intimate history of exposure to potentially dangerous substances (F. Williams 2005).

The invisibility of these potential hazards makes them easy to dismiss. Perhaps they will become yet another erroneous manifestation of collapse anxiety. Nevertheless, they are all the result of manufactured risks that rely upon technoscientific experts to be confirmed. This is a subject I will return to later in this chapter.

GLOBALIZATION AND INDIVIDUALIZATION

As the above discussion about global warming illustrates, the failure to protect the public from risks reflects the *unbinding* of politics grounded in the institutions of modernity, most notably nation states. The globalization of risk “undermines the borders of nation states as much as those of military alliances and economic blocs” (Beck 1992a, 47). The nation state is limited in four ways from exerting effective democratic control over the scope and direction of technological development:

- Because the private sector largely controls investment priorities, government is generally placed in the role of reacting to technoscientific development.
- Estimates of potential side effects of technology are calculated under the pressure of disturbing economic growth, which discourages objections.
- Potential risks are often difficult to assess, and governmental responses may require considerable time to be approved and implemented.
- A globalizing political economy, with multinational threats and capital flows, limits the regulatory leverage of individual nations (Beck 1992a, 212-214).

This results in a dangerous division of labor between the private sector and governments:

No votes are taken in parliament on the employment and development of microelectronics, genetic technology or the like; at most it might vote on supporting them in order to protect the country’s economic future (and jobs). . . . The division of labor thus leaves the industries with the primary decision-making power but without responsibility for side effects, while politics is assigned the task of democratically legitimizing decisions it has not taken and of “cushioning” technology’s side effects. (Beck 1992a, 213)

Beck critiques advocates and critics of globalism

Globalization represents “the processes through which sovereign national states are criss-crossed and undermined by transnational actors with varying prospects of

power, orientations, identities and networks” (Beck 2003, 11). These processes have led to *globality*, a world society where no social group can truly isolate itself. Globality cannot be stopped or undone in second modernity as might have been possible during first modernity. *Globalism* refers to the neoliberal story line, where economics dominates all other dimensions of globalization, such as politics, science, and ecology.⁵

Globalism has fueled the creation of a “privatized state” whereby governmental functions are converted into private economic ones. One way this plays out is that nation states become increasingly dependent upon the investment decisions of multinational corporations. This is why Beck argues that national politics has devolved to the point where it all too often accepts and justifies decisions that elected leaders had little, if any, power in making (Beck and Willms 2004, 218). To the degree that governments acquiesce to globalism, they function as their own “self-liquidators.” By the same token, economic interests may wield great power, but it has not translated into broad-based legitimacy – a lopsided imbalance that holds out the possibility for a democratic repoliticization of the economic sphere (Beck and Willms 2004, 148).

Opponents of globalism do not escape without critique. Beck argues that they tend to succumb to one of three forms of protectionism that are obsolete in a risk society.

Conservative protectionists are caught between contradictory yearnings: the revival of nationalistic values (such as family, religion, and community), and support for a neoliberal crusade that effectively erodes them.

Green protectionists could benefit from globality, since mega-hazards require global responses. However, greens often suffer from a “light-minded anti-modernism,” a “preference for things provincial,” and a fear of losing the nation state’s “bureaucratic

political leverage,” which risk “putting a spoke in their own wheel” (2003, 127).

Red protectionists “dust down for every occasion the costumes of class struggle,” but their dream of a Marxist resurrection rests upon a “utopian blindness” that does not come to terms with the dynamics of a risk society (Beck 2003, 127).

Individualization and its enemies

One key dynamic – and the both-and flip side to globalization – is what Beck calls the “individualization of social inequity,” where the “disappearance of social classes and the abolition of social inequity no longer coincide” (1997, 26). Risks can strengthen social-class polarization, such as by the exportation to the Third World of hazardous pesticides banned in industrialized nations. But globalization also creates a boomerang effect, where rich nations find it difficult to protect themselves, e.g., from imported food containing toxins in excess of regulations governing domestic producers (Beck 1992a, 37). In an era when traces of DDT are found in Antarctica and rural communities suffer from acid rain, the rich and poor are all exposed to the hazards of a risk society. “Poverty is hierarchic, smog is democratic” (Beck 1992a, 36).⁶

Risks become individualized due to the uncertainty as to who will fall victim to them. The public may try to reduce their exposure to hazards, e.g., drinking bottled water and eating organic food. Nevertheless, the uncertainties of a hazard such as Creutzfeldt-Jakob disease (CJD) – which is the human form of bovine spongiform encephalopathy (BSE), or “mad cow disease” – are such that the odds of contracting it may not be predicted with any greater precision than who will win the lottery (Beck 2000b, 217).

The invisibility and lag time of risk society hazards can exacerbate a cynical

fatalism. “Where everything turns into a hazard, somehow nothing is dangerous anymore,” notes Beck. “Where there is no escape, people ultimately no longer want to think about it.” The public can swing from “hysteria to indifference and vice versa. Action belongs to yesterday anyway” (Beck 1992a, 36-37).

It’s all up to you. Individuals can choose from an unprecedented number of consumer items, careers and lifestyles, but as the predictability and security of first modernity fades, people are also required to accept an increasingly large share of risk. Perhaps just as importantly, traditional social mores erode to the extent that writing one’s own biography is no longer an optional choice. “To use Sartre’s term, people are *condemned* to individualization” (Beck 1997, 96; original italics). Individualization is typically trumpeted – particularly by neoliberal economics – as offering people the freedom to choose a “life of one’s own.” But in second modernity, as in first modernity, one’s life is still a “highly socialized existence, utterly dependent on institutions” (Beck and Beck-Gernsheim 2001, 151). What is new is that the functional differentiation of industrialism has become so advanced that the social space it creates

can no longer be dictated from above or outside, (and) neither can it be predicted in advance. The overtaxing demands on individuals that become the general rule are ambivalent; they facilitate opposite things – emancipation *and* power, to use the classical terms. For the character of everyday life also changes, becomes detraditionalized and individualized but also *palpably globalized*. What happens on other continents directly enters the circle of experience that makes up the life of one’s own. Isolationist and fundamentalist tendencies – the revival of ethnic identities and local nationalisms – are from this point of view reactions to dangers posed to them by advancing individualization and globalization. (Beck and Beck-Gernsheim 2001, 151; original italics)

The growth of Islamic fundamentalism can be seen as a backlash against the individualism of Western cultures. So too could Christian fundamentalism in the U.S.

The values espoused by the latter have clearly had an impact on American politics, but it has hardly held back the tides of change. For example, Beck and Beck-Gernsheim argue that the family has become a zombie category that does not adequately explain contemporary household arrangements. The high divorce rate has put individuals in the position of having to choose their primary and secondary fathers, mothers, grandparents, and siblings. “We are getting into optional relationships inside families which are very difficult to identify in an objective, empirical way because they are a matter of subjective perspectives and decisions” (Beck and Beck-Gernsheim 2001, 204).

Family structure change illustrates how reflexive modernization is reconstructing society. These changes have enormous political ramifications, e.g., Beck and Beck-Gernsheim (2001) declare communitarianism obsolete because it cannot revive traditional concepts such as family, class, and neighborhood. Nevertheless, second modernity could move in a number of different directions. It could provide an opening for a radical “reinventing” of politics. At the other extreme, second modernity could become like post-communist Yugoslavia – engulfed in a “counter-modernity” of barbaric neotribalism (Beck 1997, 33).

THE DEMISE OF THE FORDIST REGIME

Another major driver of individualization – and the decline of nation-based politics – is the unbinding of the Fordist regime (Beck 2000a). This regime consisted of institutionalized expectations of constant economic growth, rising consumption, public affluence, and social security. These goals were largely achieved through standardization of production and consumption, and fueled by variations on Keynesian macroeconomic

policies operating primarily at the nation state level.

The emerging risk regime is characterized by the loss of the certainties, security, and boundaries of the Fordist regime. Globalization, the electronic revolution, the decline of the welfare state, and ecological crises are among the factors that are eroding the foundations of a work society.

The 21st Century marks the eclipse of a society largely organized around full-time, permanent employment that provides health and retirement benefits. For a substantial proportion of Americans – including those in the upper-middle class – insecurity could pervade their economic lives as they juggle relatively short-term and/or multiple jobs that may not provide traditional benefits. Beck calls this trend the “Brazilianization of the West,” because advanced industrial nations are becoming more like developing nations such as Brazil, where a majority of the population engages in economic “nomadic multi-activity” resembling pre-modern society (2000a, 1).

People are just asked to smile and accept it: “Your skills and abilities are obsolete, and no one can tell you what to learn so that you will be needed in the future.” Consequently, the more work relations are “deregulated” and “flexibilized,” the faster work society turns into a risk society that is not open to calculation by individuals or by politics. (Beck 1999, 12)

The Fordist regime cannot be revived because the risk regime operates according to a new logic of individualization (Beck 2000a). This results in new institutional forms and images of work, society, politics, and the economy. Notes Beck, “Work was once, you might say, the central business district of labor society. Now this society is fragmenting into previously unforeseen forms whose consequences we are struggling to comprehend even as they continue to mutate” (Beck and Willms 2004, 166).

The globalization of capital fuels the trend toward “fragile” work (part-time, temporary, or contracted work without benefits), but the electronic revolution – and intelligent technologies that eliminate human labor – is the key factor in delinking unemployment from economic cycles (Beck 2000a). This results in the widespread impression that nation states must now pick between protecting the social safety net for growing numbers of the poor, at the price of a sluggish economy and high unemployment; or accepting high levels of poverty as the price of lower unemployment.

Poverty has become more widespread even in Europe, both across what were once distinct social strata as well as within the life stages of individuals. Beck (2000a) argues that for more and more people, the experience of poverty at some point in their lives will become normal. Yet pressure to cut back social welfare programs will likely increase because of the lopsided power relationship between non-territorial economic actors (e.g., capital and trade) and territorially fixed actors (national governments and unions). In addition, the rise of fragile work could force significant changes to healthcare and pension systems built upon Fordist employment patterns (Beck and Willms 2004).

The end of the work society has wide-ranging political implications

Drawing on Hannah Arendt, Beck argues that “normal jobs” are not merely the foundation of material security in industrial society – they have also functioned as a “precondition for our participation in democracy” (Beck and Willms 2004, 86).

Work is not just work. Work is something that integrates us into society. It determines a great deal of our consumption options: how we dress, how we eat, how we act, how we vote. Our jobs and professions determine our security and participation chances, or our lack of the same. To a great extent, how we live depends upon what we do for a living. (Beck and Willms 2004, 156)

The eclipse of the “normal job” is undercutting the primary means of control in an industrial society (Beck and Willms 2004, 86). Notes Beck, “When every desire to build a life . . . is forced to be mediated through the labor market, what results is one of the subtlest and most refined systems ever invented for getting people to conform to the societal structure of power.” The career-development process is one of learning “self-activated conformity to rule” – or, more bluntly, “self-exploitation” that manifests in a career drive that is “something to be proud of” (Beck and Willms 2004, 158).

This helps explain why Beck sees possibilities as well as dangers in the decline of a work society. A prime danger is that neoliberalism is stripping away “the social foundations that are necessary for a cohesive society to emerge out of self-determining, self-developing individuals” (Beck and Willms 2004, 87). On the other side of the coin, if the work society “is beginning to dissolve, and if, in many ways, we want it to dissolve, then how can we create an alternative milieu in which individuals who have been fragmented and atomized can be socialized?” (Beck and Willms 2004, 158).

TECHNOSCIENCE AND SUBPOLITICS

Globalization has fueled ecological crises that result from dramatically increased consumption by wealthy nations (Beck 2000a, 74). However, mediagenic crises can function as a wild card that destroys even the best-laid corporation’s plans.

Once upon a time – in the early-capitalist entrepreneurial paradise – industry could launch projects without submitting to special checks and provisions. Then came the period of state regulation, when economic activity was possible only in the framework of labour legislation, safety ordinances, tariff agreements, and so on. In the world risk society – and this is a decisive change – all these agencies and regulations can play their role, and all the valid agreements can be honoured, without this resulting

in any security (for the corporation). Even though it respects the norms, a management team may suddenly find itself put into the dock by world public opinion and treated as “environmental pigs.” (Beck 1999, 33)

In other words, just as workers are thrown into a new epoch of uncertainty, so too are even the largest multinational corporations. The reason for this is the rise of *subpolitics*, which is a source of radical change that can spring from myriad sources other than traditional political institutions.

For example, an obscure group of human genetics researchers can effectively spur fundamental changes in how society views life, “unconsciously and unplanned, in the apparent normalcy of their professional practice as employees” (Beck 1992a, 212). A “revolution under the cloak of normality occurs, which escapes from possibilities of intervention, but must all the same be justified and enforced against a public that is becoming critical” (Beck 1992a, 186).

Risk politics resembles the “nobody’s rule” that Hannah Arendt tells us is the most tyrannical of all forms of power, because under such conditions nobody can be held responsible. In the case of risk conflicts, bureaucracies are suddenly unmasked and the alarmed public becomes aware of what they really are: *forms of organized irresponsibility*. (Beck 1998b, 15; original italics)

Public agencies whose job is to protect the public may find themselves in the role of essentially doing the opposite, i.e., engaging in the “institutionalized non-management of problems” (Beck 1999, 57) through “symbolic normalization” (Beck 1999, 32). Rule-breaking behavior is not the key factor causing global warming, but rather the rules themselves, which effectively legitimize continued growth in the production of greenhouse gases. This occurs under the guise of “progress” – the secular religion of modernity – that gives corporations and science the freedom to unleash revolutionary

changes with only superficial and belated democratic oversight. “Faith in progress replaces voting” (Beck 1992a, 214), thereby contributing to an unbinding of politics.

Subpolitical pressure can erode science’s traditional ‘monopoly on rationality’

Science plays a key role because of its “monopoly on rationality” (Beck, 1992a, 57). This builds on the analysis of Jurgen Habermas, who points to a scientization of politics whereby the lay public cedes increasing amounts of power to technocratic elites (1971, 62). According to Beck, “Science ‘determines risk’ and the population ‘perceives risks.’ Deviations from this pattern indicate the extent of ‘irrationality’ and ‘hostility to technology’” (1992a, 57). Beck argues that science’s monopoly must be broken because it has failed to deal effectively with growing risks.⁷

The initial obliviousness of experts regarding the seriousness of a hazard can contribute to its escalation (Beck and Willms 2004, 33). The G. W. Bush administration’s more-research-is-needed approach to global warming policy could be viewed as an example of the symbolic normalization of a risk society hazard (Revkin 2002a, 2002b, 2003a; Simms 2003). Nevertheless, Beck expresses optimism that organized irresponsibility can be transcended via pressure from subpolitical groups.

Hazards themselves sweep away the attempts of institutional elites and experts to control them. The ‘risk assessment bureaucracies’, of course, have well-worn routines of denial. By utilizing the gap between impact and knowledge, data can be hidden, denied and distorted. Counter-arguments can be mobilized. Maximum permissible levels of acceptance can be raised. Human error rather than system risk can be cast as villain of the piece. However, these are battles where victories are temporary and defeat is probable or at least possible because they are fought with nineteenth-century pledges of security in a world risk society where such promises are hollow and have lost their purchase. (Beck 1999, 150-51)

Beck sees signs of reform within the scientific community, which displays a “fundamental cleavage” between its traditional “Popperian logic of research, which asks only how its research program can be falsified,” and those who advocate for an “integrated logic of research and technological development” that squarely faces the key challenge of a risk society: “We are forced to make more and more far-reaching decisions based on more and more uncertain information” (Beck and Willms 2004, 205).

Impotence of traditional institutions erodes the long-standing ‘progress coalition’

Just as science is faced with expanded responsibilities, so too is politics – but without industrial society’s control mechanisms. Globalization and individualization are eroding the power of traditional political organizations such as parties, labor unions, and national governments. This is leading to a society with no bureaucratic control center. “Politics is no longer the only or even the central place where decisions are made on the arrangement of the political future” (Beck 1992a, 233). The result: “The political becomes non-political and the non-political political” (Beck 1992a, 186).

The impotence of traditional political institutions politicizes society through the rise of subpolitics, e.g., Greenpeace using mediagenic stunts to embarrass a corporation into stopping hazardous practices. This can result in political “congestion” and even paralysis as subpolitical movements challenge institutions that have traditionally made technoscientific decisions with relative autonomy. Beck sees subpolitical networks as the catalyst for the reinvention of industrial-era governing institutions along more authentically democratic lines – often while leaving their facades unchanged. “In a certain sense, this is the inverse of symbolic politics,” states Beck. “If the latter produces

smoke to simulate fire, then in this case constancy is demonstrated in order to hollow out the party-political ‘state property’ in a participatory manner” (1997, 145).

An erosion of a long-standing progress coalition of state, economy, and technoscience can result in the politicization of first modernity’s assumptions and institutions. For example, once the Green party entered the German government in 1998, it changed the way risks were addressed by placing on public commissions “counter-experts” who had been excluded, raising the level of insurance required for potentially risky technologies, and better enforcing existing laws (Beck 1999, 4-5).

While those changes may appear to be of negligible importance, Beck argues that small changes can paradoxically “induce basic long-term transformations in the power game of risk politics” (Beck 1999, 5). This dovetails with Kevin Kelly’s (1998) argument that technoscientific development has accelerated to such an extent that innovations now reach their “tipping point” (Gladwell 2002) well before they become highly visible – let alone dominant – in the marketplace. This places greater pressure on corporations and government regulators to anticipate trends when they still appear to be insignificant to the casual observer. Beck (1999) essentially argues that social scientists need to do the same in observing political, social, economic, and environmental trends.

Democratizing technoscience through ‘refeudalization’ of social relationships

In distinguishing between traditional political institutions and subpolitics, Beck contrasts *rule-directed (simple)* and *rule-altering (reflexive)* politics (see Table II). Whereas in first modernity subpolitics is dominated by rule-directed technical rationality, in second modernity the disintegration of industrial institutions “makes room for a

refeudalization of social relationships” (Beck 1997, 151). This leads to the rise of rule-altering political entrepreneurs who develop neo-Machiavellian power networks.

TABLE II. Politics and subpolitics in simple and reflexive modernity

<i>Place and type of the political</i>	<i>Quality or period of the political</i>	
	<i>Simple (rule-directed)</i>	<i>Reflexive (rule-altering)</i>
Politics of the political system	Symbolic politics, growth, full employment, technical and social progress	Economic reactivation or metamorphosis of the state
Sub(system) politics	Simple expert rationality, dominance of technocratic, bureaucratic action, private sphere	Reform of rationality, politics of entrepreneurs, vocation as political action
Conditions of politicization	Strike, parliamentary majority, governmental initiative, collective-individualistic solutions (e.g., car, insurance)	Congestion, blockade and, as one variant, the struggle for consensus and reforms of the modernizations inside and outside the political system

(Verbatim from Beck 1994, 37)

Vocations and professions can play a pivotal subpolitical role in democratizing technoscientific decision making (Beck 1992a, 1994). This partially reflects the complexity of technoscientific developments, whereby only specialists may recognize potential hazards in advance (Beck 1992a). Other factors include the supernationality of many professions, which “predestines them to be agents of global solutions” to international hazards (Beck 1994, 157). This is why Beck emphasizes the cultivation of higher levels of self-criticism within vocations and professions, arguing that the

“assertion of political civil rights within the world of work” is a pivotal step in a “synthesis of democracy and economics yet to be invented” (1997, 49).

In academia, social scientists could provide a scholarly counterbalance to the natural sciences by assessing potential secondary consequences of new technology, particularly with regard to social, cultural, and political impacts that are downplayed or ignored by natural scientists (Beck 1992a). This is unlikely to occur until mainstream social science acknowledges that first modernity is ending – and with it, academia’s traditional ground rules, e.g., a stubborn belief in the continued viability of industrial political institutions such as Western liberal nation states.

“Social scientists have difficulties with the concept of death,” Beck argues. “The collapse of the Eastern Bloc, however, has demonstrated that there can be such a thing as a governmental stroke” (1997, 140). Indeed, social scientists should engage in agonizing reappraisal about the basic characteristics of 21st Century governance, e.g., whether the military should be an essential part of the individual nation state. Concludes Beck, “Reflexive politics, then, does not just mean the reinvention, but also the *clearing out* of politics: to put it bluntly, murdering institutions” (1997, 141; original italics).

Altruistic individualism a key element in Beck’s ‘Cosmopolitan Manifesto’

Beck and Beck-Gernsheim (2001) declare obsolete a class analysis that assumes individualization must be fought. They see in reflexive modernity the rise of *altruistic individualism* – a new political ethics that integrates individualism and altruism. For example, they refer to the post-cold war generation as “freedom’s children,” because of its “highly political disavowal of politics” (Beck and Beck-Gernsheim 2001, 157). The

drive to have fun is seen as a political act, because it unmasks the growing irrelevance of industrial institutions. “Freedom’s children regroup in a colourful rebellion against tedium and obligations that are to be complied with without reasons being given for them and even if no one can identify them” (Beck and Beck-Gernsheim 2001, 159).

Beck’s (1999) prescription for responding to the challenges of reflexive modernization is summed up in his “Cosmopolitan Manifesto,” which he contrasts with Marx’s “Communist Manifesto.” Whereas Marx was focused on class conflict, Beck is more interested in transnational-national conflict, with his goal the cultivation of a global civil society. This is built around a consciousness grounded in a dialectic of global and local (*glocal*) questions that have not fit into the mainstream politics of the nation state. In other words, the central issues of reflexive modernization are global in nature, but may often be more concrete at the local rather than national level.

Beck sees potential for the development of “non-territorial communities of risk,” which include transnational non-governmental organizations (NGOs) and regional treaties. These movements form a “world party” in that “their values and goals have not a national but a cosmopolitan foundation: their appeal (*liberty, diversity, toleration!*) is to human values and traditions in every culture and religion; they feel an obligation towards the planet as a whole” (Beck 1999, 17; original italics). Underpinning these efforts is a global citizenship skeptical of “national egoisms masquerading as universal necessities,” and “the mistakes and defects of national bureaucracies” (Beck 1999, 18).

How can citizenship grow in the shadow of a declining work society? Beck proposes that what he describes as a monopoly of paid labor be broken by the creation of “civil labour.”⁸ He envisions programs whereby those who choose to engage in “publicly

important” volunteer work are compensated via a basic wage as well as health and retirement benefits. Beck is sketchy about how such programs could be funded and administered. However, he suggests that the costs could be at least partially offset by savings in unemployment insurance and welfare. Beck also argues against putting civil labor programs under the direction of traditional governmental bureaucracies – or even newly formed ones – because “civil labour is supposed to strike a different note from the organized unimaginativeness of the local and national state.” What he has in mind is a system that cultivates “public welfare entrepreneurship” that has the political autonomy to engage in acts of “creative disobedience” (Beck 2000a, 129-130).

Beck’s concept of civil labor offers his boldest prescription for how individualization can result in a “culture of freedom” rather than a neoliberal dystopia. He acknowledges that such a radical shift in public policy would face heavy opposition from institutions still rooted in the precepts of first modernity, such as labor unions, political parties, and churches. However, Beck notes that the sheer forcefulness of the changes wrought by second modernity could lead to the collapse or transformation of these “dinosaur organizations” (Beck and Willms 2004, 168-169).

A radically reflexive modernity faces formidable opposition, and not just from premodern forms of fundamentalism. The “full-employment” mantra chanted by labor unions and their political allies is also a form of fundamentalism. Nor does Beck assume that cosmopolitanization is without risks. One of them “is the risk that the very concept of ‘cosmopolitan society’ might offer an effective ideological legitimation for the imperial powers of capital and the military” (Beck and Willms 2004, 190).

IMPLICATIONS FOR AMERICAN PUBLIC ADMINISTRATION

It would be easy to dismiss world risk society theory, both because of the provocative nature of its key tenets as well as Beck's rhetorical cheekiness. I would nevertheless contend that his story line is worth careful study for three reasons.

First, risk society theory offers a remarkably out-of-the-box way to assess the normative political ramifications of emergent mega-hazards such as global warming. Even if one does not fully accept Beck's theory, it can function as a mirror with which to unmask normative underpinnings of American public administration that otherwise might remain "implicit, undisclosed, and undiscussed" (McSwite 1997, 2).

Second, Beck inventively models an open-source approach to theory building. The application of his both-and perspective to contemporary public administration debates could cultivate fresh and interesting discursive boundary crossings between competing schools of thought.

Third – and most importantly – risk society theory challenges public administration to become more reflexive about its relationship with technoscientific development and democratic processes as the pace of social change arguably accelerates.

The sheer breadth and boldness of risk society theory opens it up to challenge on any number of fronts (e.g., Buttel 1992; Renn 1997; Alexander 1996; Freudenburg 2000; A. Scott 2000; Hood and Rothstein 2001; Bell 2004; Mythen 2004).⁹ These debates, while worthy of discussion, are beyond the scope of this essay. I instead posit this scenario: *What if* risk society theory is a largely accurate description of American life in the 21st Century? If so, what are the implications for public administration?

Notice that I said “*largely* accurate description.” I will not be applying world risk society theory in an undiluted form. This is partly because Beck’s analysis is grounded in European sociology, and arguably needs some theoretical bridge building to apply more directly to American public administration. The concepts introduced in chapters III through VIII represent an attempt to allow a more meaningful discussion. In addition, I raise a number of questions that suggest the need for friendly theoretical amendments. The theme of these questions can be summed up simply: Is Beck too optimistic that the dynamics of a radical reflexive modernization could unleash opportunities for more effectively addressing world risk society hazards than the institutions of first modernity, particularly as they apply to American public administration?

CHAPTER III

ADAPTATION TO ACCELERATING CHANGE

A key element of Beck's analysis is that the political implications of technoscientific development are more difficult to grasp in a world risk society because of factors such as its unprecedented scale, complexity, and opacity. Sun Microsystems co-founder Bill Joy points out the dangers of this situation:

The 21st-century technologies – genetics, nanotechnology, and robotics (GNR) – are so powerful that they can spawn whole new classes of accidents and abuses. Most dangerously, for the first time, these accidents and abuses are widely within the reach of individuals or small groups. They will not require large facilities or rare raw materials. Knowledge alone will enable the use of them. (Joy 2000, 242)

As a case in point, Joy draws on the work of Eric Drexler (1986, 172-173) to suggest that nanotechnology could result in omnivorous bacteria that reduces “the biosphere to dust in a matter of days.” – a product of a “simple laboratory accident” or an act of terrorism (Joy 2000, 248). Regardless of whether such concerns turn out to be a display of unwarranted collapse anxiety,¹ the mere possibility of this scenario highlights ethical questions that public servants are in a privileged position to help answer because of their administrative authority and access to scientific knowledge.

This chapter discusses the potential of a nascent reflexive modernization to keep pace with accelerating technoscientific change. A number of analytical tools will be presented, including governance gaps, hazard footprints, and Red Queen syndrome. In addition, three typologies will be introduced: Philip Selznick's (1957) types of institutional maladaptations, Duane Elgin's (1981) life-cycle model of Western industrial civilizations, and Stewart Brand's (1999) temporal levels model.

GOVERNANCE GAPS AND ACCELERATING CHANGE

A dominant characteristic of a risk society is the mismatch between a hazard's size and the problem-solving capabilities of a polity still primarily structured around the less daunting hazard characteristics of first modernity. I refer to this mismatch as a *governance gap*. This concept builds on what William Ogburn (1964) called a *cultural lag*, which he described as the adaptive disorders resulting from when various parts of society respond at different rates to an innovation. For example, Ogburn pointed to a lag between the introduction of large-scale machinery in factories and the legal system's ability to adapt to the new types of accidents that resulted.

(T)here was a lag of about thirty to forty years when the maladjustment could be measured by inadequate provision for several hundred thousand injuries and deaths to which there would have been a better adjustment if we had had laws of employers' liability or workmen's compensation. (Ogburn 1964, 90)

A governance gap is a snapshot of a cultural lag in progress.² A governance gaps analysis might ask: What factors impede a polity's response to a hazard? These factors may range from cultural and institutional, to legal and philosophical. A goal in studying a governance gap is to critique responses to a hazard in order to determine whether

outcomes are being achieved. Where does a cultural lag linger, and what does that say about the way power – and risk – are distributed in a polity?

A governance gaps analysis should not be viewed as yet another management tool drained of rule-altering capabilities. With large and complex issues such as global warming, a governance gaps analysis has the potential to raise fundamental questions about the continued viability of a social group – and even a constitutional order.

Governance gaps may be fueled by *evolutionary lag*. Robert Ornstein and Paul Ehrlich (2000) argued that the capacity of humans to invent new technologies has outpaced our ability to respond to resulting side effects. In the vast sweep of human evolution, industrialization is a mere blip – in their view, hardly long enough for a species to organically develop the sensing and thinking capacities now needed. As a case in point, humans have historically depended primarily upon their physiological ability to respond quickly to short-term and tangible changes. However, the great threats of our time are gradual and relatively intangible, such as population growth, species extinctions, and the build-up of toxins in the environment. Cultural evolution can be far quicker than its biological sister, but Ornstein and Elhrich questioned whether even it could respond quickly enough to the hazards created by accelerating technoscientific development.

This story line raises useful questions regarding cultural lags. Might a cultural lag drag out if ending it requires behavioral changes that leapfrog ahead of human physiological evolution? Might the larger the needed leapfrog, the greater the potential for significant political conflict? Furthermore, to the degree that public administration plays a role in closing a governance gap by helping to change societal behavior, is it likely to become a lightning rod for controversy regardless of its “managerial” approach?

The larger the governance gap on a risk society hazard, the greater the potential for unprecedented harm to occur, as well as a corresponding decline in the legitimacy of democratic forms of governance. For example, a global warming governance gap could be operationalized in a number of ways. At an empirical level, the annual output of greenhouse gases could be compared to targets scientists deem necessary to minimize harm, e.g., as embedded in the Kyoto Protocol. David Demeritt (2001) argues that those targets are not just based upon “good science” – they are colored by normative commitments. One way to better understand why a polity is failing to meet self-imposed greenhouse gas-emission caps is to unmask its dominant normative assumptions.

Accelerating technoscientific change and complexity

Robert Theobald (1997) argues that the major difference between the agricultural, industrial, and what he calls a “cybernation revolution” is the speed with which they have developed. Postindustrial society could be plotted on the upward leg of a j-curve because it has developed in just a few decades rather than over hundreds of years, as with industrialism, and thousands of years in the case of agricultural societies.

The acceleration of technoscientific development is illustrated by the computer chip, whose capacity has consistently doubled every 18 months since the mid-1960s (Brand 1999; Gilder 2002). Stewart Brand suggests that this phenomenon, which is commonly referred to as Moore’s Law, might be more appropriately called Moore’s Wall, because the exponential growth of computer-chip capacity eventually shoots up the almost vertical side of a j-curve. Gordon Moore predicted that such a torrid rate of

growth would taper off by 1975, but it never did (Brand 1999, 12-14), and Bill Joy predicts that it could continue another three decades.

By 2030, we are likely to be able to build machines, in quantity, a million times as powerful as personal computers today. . . . As this enormous computing power is combined with the manipulative advances of the physical sciences and the new, deep understandings in genetics, enormous transformative power is being unleashed. These combinations open up the opportunity to completely redesign the world, for better or worse. . . . (Joy 2000, 243)

Brand suggests that the biggest problem with Moore's Wall is that humans are used to arithmetic rather than exponential rates of change. "Later doublings in an exponential sequence, we come to realize, are absolutely ferocious. The changes no longer feel quantitative or qualitative but cataclysmic; each new doubling is a new world (Brand 1999, 17)."

How much change can a society take? Are there upper limits to the scope, complexity, speed, and number of hazards resulting from technoscientific innovation that government – and public administrators – can safely handle?

These are difficult questions to answer when one is in the midst of hurdling through what Theobald (1987) describes as the "rapids of change." It is obviously much easier to see in hindsight whether fear of a new technology is prescient. Perhaps humans will easily close the governance gaps of the early 21st Century, and Beck will someday be dismissed as unnecessarily alarmist. Of course, other scenarios are also possible, e.g., technoscientific development could accelerate beyond what society can handle.

Archeologist Joseph Tainter (1988) argues that the biggest factor in the collapse of civilizations was that they became too complex. Continued investment in sociopolitical complexity – which Tainter views as a universal problem-solving strategy

– eventually reaches a point of declining marginal return. Public administration has historically played an important role in this process.

A society increasing in complexity does so as a system. That is to say, as some of its interlinked parts are forced in a direction of growth, others must adjust accordingly. For example, if complexity increases to regulate regional subsistence production, investments will be made in hierarchy, in bureaucracy, and in agricultural facilities (such as irrigation networks). The expanding hierarchy requires still further agricultural output for its own needs, as well as increased investment in energy and minerals extraction. An expanded military is needed to protect the assets thus created, requiring in turn its own increased sphere of agricultural and other resources. As more and more resources are drained from the support population to maintain this system, an increased share must be allocated to legitimization or coercion. This increased complexity requires specialized administrators, who consume further shares of subsistence resources and wealth. To maintain the productive capacity of the base population, further investment is made in agriculture, and so on. (Tainter 1988, 118-119)

This cycle of investing in further complexity may be repeated. Tainter notes that Rome pulled itself from the brink of collapse a number of times through territorial conquests and administrative innovations. However, the escalating costs of defending and administering such a large territory could not be sustained by a population decimated by several waves of the plague (Tainter 1988).

FRONTIER ETHICS AND HAZARD FOOTPRINTS

The concept of *frontier ethics* can shed light on the complexity limitations of public administration. The study of frontier ethics focuses on the value systems in conflict during the cultural lag between when a new technoscientific development – broadly defined as a physical or intellectual product, process, service, territory, or organism – is “discovered” (or remembered) and when society comes to stable agreements about the ethical parameters for its usage.³ For present purposes,

technoscientific development includes the innovation itself, the techniques needed to create it, and the social structures necessary to utilize it (Warner and English 1995; Bell 2004). As a case in point, the automobile begat the development of technical fields such as aerodynamics, as well as social structures such as large factories, distant suburbs, and urban planning. Globalization is a meta-level example of technoscientific development because it is the product of a number of technologies, such as electronic communication systems and transnational corporations. Public administration in its modern, bureaucratic form is also a meta-level technoscientific development.

The myth of “how the West was won” illustrates the closing of an *ethical frontier*, in this case the vast expanse of land settled in the Western U.S. during the 19th Century. Pop-culture movies have tended to focus on how a protagonist, such as a sheriff, is confronted by a Wild West of conflicting ethical norms. The protagonist’s success is judged by his ability to impose social order approaching that of the urbane east coast, with its relatively stable norms in areas such as property rights, preservation of human life, and governmental authority to arbitrate disputes.

Frontier ethics result from two factors. First, not enough may be known about a new science or technology to apply it without causing harm. Second, the drive to exploit the profit-making and/or power-enhancing potential of an innovation can lead to a Wild West of varying ethical standards within a pioneering social group.

The evolution of radioactive technologies illustrates both factors. Barrie Lambert (2002) notes that in the 1920s radium was used in luminous paint, and in the 1930s some psychological disorders were treated with “radium therapy.” In the 1930s and 1940s beauty shops used X-rays to remove hair, and up through the 1950s virtually every shoe

store used an X-ray device to measure children's feet. Meanwhile, the U.S. and former Soviet Union engaged in above-ground nuclear weapons testing until the early 1960s.

Even though we may know more about radiation's risks than virtually any other environmental hazard, Lambert (2002) points to how rapidly that knowledge has changed even in recent decades, e.g., between 1977 and 1990 the risk rate of radiation-induced cancer was increased by as much as 500 percent by the International Commission on Radiological Protection. In addition, daily practices can lag behind scientific knowledge, e.g., a report issued in 2001 by the Centers for Disease Control and Prevention itemized a variety of public health questions that still linger from above-ground nuclear testing conducted in the 1950s (C. Miller and Bouville 2001).⁴ Lambert (2002) argues that the economic and political benefits of radioactive technologies slowed the development and implementation of effective regulations.

Closing an ethical frontier may take hundreds of years, as it did in the settlement of the Western hemisphere by Europeans, or it could play out in a few decades, as has been the case with the personal computer. In a risk society, an industry may find itself contending with multiple ethical frontiers in rapid sequence or in tandem. These frontiers tend to be dominated by *moral dilemma blindness*:

Failing to understand the consequences of our inventions while we are in the rapture of discovery and innovation may be a common fault of scientists and technologists; we have long been driven by the overarching desire to know that is the nature of science's quest, not stopping to notice that the progress to newer and more powerful technologies can take on a life of its own. (Joy 2000, 243)

Closing an ethical frontier represents an intersubjective agreement open to renegotiation, and thus does not necessarily close a governance gap. Nevertheless, a frontier's closure may be achieved by renegotiating normative assumptions on which a polity is built. For

example, if evidence builds that global warming is occurring more quickly than had been assumed, it is possible that an ethical agreement may develop that this hazard is too advanced to stop and the focus should shift to mitigating damage. I will argue in Chapter IV that such a shift redefines democracy. By the same token, technological somnambulism may ebb only incrementally by the closing of an ethical frontier.

Hazard footprints and colonizing the future

The need to quickly close an ethical frontier can be greater during second modernity because a *hazard footprint* may extend far beyond a given polity's borders, both in terms of space and time. Beck (1999, 3) refers to technoscientific developments that could impose hazards onto future generations as *colonizing the future*, which could be defined as the act of establishing without mutual uncoerced agreement a power relationship controlled by the colonizer primarily, if not exclusively, for his benefit. Technoscientific colonization might also be applied to hazards that impinge on the sovereignty of less powerful nations and other species.

Colonization may be as old as history, but one difference in a risk society is that the focus is on the distribution of "bads" (rather than "goods") by colonizers who may be too diffuse to pinpoint. For example, if global warming is the aggregate of the entire planetary output of greenhouse gases for roughly a century, who does one hold accountable for any resulting harm imposed on future generations? Another key difference is that the debate over whether to allow a permanent and irreversible hazard to occur can only be done in the abstract, without a live "con" side to defend its interests. Even endangered species can, in a sense, "speak" for themselves through their presence.

In contrast, people who have not yet been born cannot speak except through “other-regarding” ethical principles espoused by the living.

The difficulties of closing an ethical frontier may be accentuated by the accelerating pace of technoscientific development. Kevin Kelly (1998) argues that rapid advances in electronics have created a more turbulent and unpredictable economy. Kelly does not address the societal repercussions of this entrepreneurial Wild West, but his descriptive analysis parallels the prescriptive lament of Benjamin Barber (1995), who warns that anarchic postindustrial forces could undercut democracy. How should the proverbial sheriff – public administration – respond to the ethical frontiers of a nascent network economy, such as recent corporate scandals in the banking, energy trading, and accounting industries? One could argue that the scale of these scandals has reflected government’s inability to keep pace with ethical frontiers opened up by the private sector.

The ethical challenges of a risk society may be summarized by the following questions: Given the size of governance gaps between risk society problems and public agencies built largely during first modernity, how should public servants act if their specialized knowledge leads them to believe that the problem can only be addressed through what Beck describes as the “murder” of an administrative rule, a statute, or even an entire agency, profession, or regime? In an era of revolutionary technoscientific change, who should be privileged to make these judgment calls, and on what basis?

RED QUEEN SYNDROME AND INSTITUTIONAL MALADAPTATIONS

The above-listed questions point to a link between ethical decision making and organizational adaptation during a time of accelerating change, which can result in *Red*

Queen syndrome (e.g., Brem 2000; Van Valen 1973; Farmer 2007). This draws on Lewis Carroll's *Alice Through the Looking Glass*, where the Red Queen states that "it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!" (Carroll 1960, 210). Ethical frontiers may sprout faster than they can be settled despite the efforts of public servants to run faster and faster to catch up. This can result in a case of *future shock*, where the pace of change becomes so great that it leads to a "massive adaptational breakdown" (Toffler 1970).

Selznick (1957) described three ways that maladaptation can occur:

- An institution focuses on safe but overcompartmentalized goals that can limit its ability to respond to changing needs.
- The institution engages in opportunistic behavior – the pursuit of "immediate, short-run advantages in a way inadequately controlled by considerations of principle and ultimate consequence" (Selznick 1957, 143). For example, the institution allows itself to be coopted by a vested interest.
- The institution hides behind a "utopianism" that avoids hard choices by a "flight into abstractions" or a "retreat into technology" (Selznick 1957, 147). The latter is done by inaccurately separating ends from means, e.g., by fixating on the technical aspects of accomplishing routine tasks.

Selznick (1957) wrote about these maladaptations at the height of first modernity. The greater complexity and faster pace of a risk society suggest the greater likelihood of an institution lapsing into one or more of the above behaviors (and why, in Chapter VIII, a fourth maladaptation is added: revolution blindness). In addition, when I use the term adaptation, I am not focused on the survival per se of an institution. In Beckian terms, it

may very well be that the “murder” of that entity could be the most effective way to close a governance gap. At issue is whether a governance gap is closed quickly enough so that the harm caused by a hazard is minimized or eliminated.

Ways of viewing the future can have significant political implications

Adaptation may, in turn, require rethinking the relationship between past, present, and future. Donella Meadows (1999) pulled together a useful set of analytical tools that can add nuance to Beck’s distinction between fundamentalism and radical reflexivity.

Meadows argued that all too often the political realm misinterprets scientific findings about future risks because it confuses predictability and choice, e.g., global population *could* reach 15 billion under certain scenarios versus the argument that this population level is inevitable, so we *must* plan for enough houses, cars, and Burger King outlets to accommodate all those extra people. Another exercise in confusion is the transposing of always-true truths (e.g., burning carbon fuels creates carbon dioxide) with truth-by-repetition truths, e.g., “the U.S. political system will never permit a carbon tax” (Meadows 1999, 109). As the latter example illustrates, one of the easiest ways to marginalize an alternative vision of the future is to ascribe law-like certainty to an extrapolation of past behavior into the future. Confusion in either of these areas can function as a powerful rhetorical strategy for discursive boundary setting.

Meadows drew on the work of Russell Ackoff (1974) to suggest that these rhetorical strategies can be linked to four ways of viewing the future.

Inactivists are satisfied with the status quo and fear that change will make things worse. “They typically see those who cry ‘Crisis!’ as panic mongers and prophets of

doom,” Ackoff argues (1974, 23). When forced to respond to an issue, they attempt to substitute words and process for substantive action, e.g., the creation of task forces and policy statements. Any actions that are subsequently taken will tend to be incrementalist in nature, and may not be fully implemented due to lack of resources committed to the narrowly defined change initiative. Inactivists tend to “react only to serious threats, not opportunities,” and they eschew planning (Ackoff 1974, 23).

Reactivists “prefer a previous state to the one they are in and they believe things are going from bad to worse” (Ackoff 1974, 24). In contrast to inactivists, reactivists do not go with the flow; they instead attempt to “recreate the past by undoing the mess they believe that the planning of others has wrought.” Ackoff argues that reactivists “dislike complexity and try to avoid dealing with it. They reduce complex messes to simple problems that have simple solutions – solutions that are ‘tried and true.’ They are panacea-prone problem solvers, not planners into the future” (1974, 25).

Preactivists believe the future is effectively uncontrollable, but they can mitigate its effects by better methods of prediction and preparation. They thus place a heavy emphasis on analytical tools such as forecasting. “Preactivists seek change within the system, but not change of the system or its environment. They are reformers, not revolutionaries” (Ackoff 1974, 26).

Interactivists do not settle for the status quo, seek a return to the past, or adapt to trends. “Interactivists are radicals; they try to change the foundations as well as the superstructure of society, institutions, and organizations. They desire to neither resist, ride with, nor ride ahead of the tide; they try to redirect it” (Ackoff 1974, 27).

These four ways of viewing the future “are mixed in varying proportions in each individual and organization, and the mixture may change from time to time or from situation to situation” (Ackoff 1974, 22). Even so, one of these approaches will tend to be dominant among managers and the organizations in which they work. This is why I would argue that a central question of public administration in a risk society is whether its primary focus should be to perpetuate the status quo, revert to past practices, mitigate the problems of an uncontrollable future, or to try to actively shape it.

Each of these tendencies is rooted in a different set of normative commitments. Inactivists may feel most comfortable with the checks and balances of a Madisonian form of government, whereas interactivists may find it maddeningly impervious to fast-paced change. Reactivists may pine for a rollback of the administrative state, whereas preactivists may seek technical reforms in order to better predict and control contemporary risks. Despite these sharp differences, alliances between these groups can manifest, e.g., inactivists and interactivists may oppose a preactivist proposal, albeit for opposite reasons: the former thinks it goes too far and the latter not far enough.

The political contingencies of Ackoff's typology

Each view of the future can inform a rhetorical strategy designed to protect the interests of an individual or social group. Preactivist story lines may dominate the rhetoric of public administration practitioners who believe their legitimacy is built upon the field's classical image of rule-directed neutral competence. A municipal planning department may have a much easier time gaining approval of its proposed transportation plan by arguing that it merely responds to population-growth trends rather than represents

a staff-driven exercise in social engineering. Such a gambit may take the political heat off planners, but it could also perpetuate a cultural lag regarding urban sprawl by ascribing law-like certainty to an extrapolation of past behavior into the future. In other words, public administration's technoscientific expertise can give it considerable agenda-setting power in recategorizing a truth-by-repetition vision of the future as an always-true fact. This can have potentially revolutionary implications for risks delimited in time and space that are heavily mediated by knowledge elites.

Effectively responding to risk society hazards may require a mix of people and institutions with differing approaches to envisioning the future. Preserving the biosphere for future generations can be rooted in eco-inactivism, but it might also require interactivist visionaries to challenge prevailing values that perpetuate destructive practices, the trend analysis of preactivist researchers, and the support of reactivist elected officials. This suggests the need for complex rhetorical strategies that may be riddled with overt contradictions or covert ones masked by silence. The discursive inconsistencies of an individual or social group might be at least partly explained as an effort to close a governance gap by avoiding potentially paralyzing resistance from people who approach the future in very different ways. Rhetorical strategies – and any contradictions that result – can be expected to evolve over time, both because:

- Changes in the discursive boundaries of an individual or a smaller social group can be impacted by larger-scale events (e.g., the Sept. 11, 2001 attacks have arguably changed American public administration discourse); and
- An individual or group may change their strategies as their political-economic position evolves, e.g., one of Beck's most recent books (Beck and Willm

2004) arguably has a less interactivist tone, perhaps because of his increased stature in a discipline privileging preactivist methodologies.

Each way of viewing the future has advantages. Inactivists can play a pivotal role in maintaining the stability of a system that holds out the potential of continuing to function reasonably well. Reactivists are essential to returning a system to an earlier, more successful approach. Preactivists can be particularly effective in helping a system adapt to low-to-moderate change that does not require normative political reappraisal. Interactivists may be most useful during a threshold period of dramatic change.

The above discussion hints at how interactivists could be important – but hardly sufficient – to navigate the white rapids of the 21st Century. This adds nuance to risk society theory, where Beck’s focus on reflexive, rule-altering behavior effectively privileges the role of interactivists. The theoretical repercussions of a more contingent approach to revolutionary action will be discussed in greater detail in Chapter VIII. For now I would like to build upon Beck’s (1999) argument that the future at least partially supplants the past in determining action and experience in the present. This leads to a key paradox of a risk society: Despite its more “moderate” appearance, preactivism may be as revolutionary of a story line as interactivism.

As a case in point, to argue that a significant increase in greenhouse gas emissions is *politically* inevitable – and thus an emphasis should be placed on mitigation rather than prevention – reflects a case of risk society preactivism. This perspective is grounded in a pragmatism that effectively rejects the viability of interactivist attempts to change society’s normative foundations and superstructure, e.g., by quickly shifting from a centralized, fossil-fuel-dependent political economy to one that is built around a

decentralized system of renewable energy sources. However, if it turns out to be true that greenhouse gas emissions must be reduced by 60 percent by 2050 in order to stabilize the climate, then there is not a “moderate” option since that large of a reduction cannot be reached by tinkering around the margins (H. Scheer 2004; Gelbspan 2004).

In other words, preactivist responses to global warming may require fewer short-term changes to the political economy, but they could also result in much more dramatic long-run climatic changes that could plausibly translate into fundamental political and economic transformations. Given the size of this hazard, *all* policy options may lead to a revolution, albeit with different winners and losers.

PROBLEM SOLVING DURING AN INVISIBLE REVOLUTION

Those who have lived through a major portion of the 20th Century may wonder whether talk of a postindustrial technoscientific revolution is overblown. What could top the convulsions of industrialization? First modernity was literally *sensational* – it assaulted the senses. The social significance of jet planes, electric lighting, or massive dams is tangible enough to be seen by non-experts. This is often not the case with a risk society’s key developments. Bioengineering, nanotechnology, and the Internet often cannot be seen, heard, smelled, or touched. They are invisible revolutions.

Consider electronic communication technologies. William J. Mitchell (2000) argues that they are causing the most fundamental reordering of human settlements since the rise of ancient Greek city-states. Tele-conferencing, e-mail, and the Internet undercut traditional interactions based upon physical distance, and the movement of information is increasingly overshadowing that of materials and people. In a digitally interconnected

planet, concepts such as “civic space” take on whole new meanings, e.g., web pages to some degree displace doors in buildings as points of entry, and a sense of community can become significantly detached from one’s physical location. A layperson can “see” web home pages, but the Internet “superhighway” does not assault the senses like its automotive equivalent, so its significance can be undervalued by those steeped in the paradigmatic referents of industrial society.

The sensational nature of industrial society has trained people – scholars and laypersons alike – to view revolutions as resulting primarily from aggressive *actions*, such as an armed coup that culminates in the rewriting of a nation’s constitution. When viewed through that lens, one may fail to read the significance of policy decisions regarding a risk society hazard. For example, global warming could result primarily from *inaction* on the part of governments, e.g., failing to put in place new policies that better regulate greenhouse gases and shift subsidies from nonrenewable to renewable energy sources. As Charles Perrow (1984, 1999) has pointed out, in a high-tech society, errors of omission can cause as much harm as flagrant displays of misfeasance.

Professional Cassandras and Tower of Babel syndrome

The cutting-edge technologies of a risk society can be so exotic that only a handful of specialists in obscure subfields may adequately grasp their revolutionary implications. How many people outside of the artificial intelligence field would take seriously the idea that self-replicating robots could be available within the next three decades? Yet this is what some credible experts are predicting – and debating whether such technology might ultimately rule the human obsolete (Drexler 1985; Joy 2000).

The collapse anxiety Greg Easterbrook (2003) decries may be at least partially fueled by a radical specialization of knowledge and labor that creates *professional Cassandras* – knowledge elites who discover potential hazards that may be downplayed or ignored even by colleagues outside of their immediate subfield. What we have here is a postmodern twist on Greek mythology, where Cassandra, the youngest daughter of the last king of Troy, was cursed with power to foretell the future but no one would believe her. Cassandra was “doomed to a life of despair” because she “could see dangers threatening to others, but she could not prevent them” (AtKisson 1999, xvii).

As the number of subfields expands, it becomes more difficult even for a relatively interdisciplinary field such as public administration to keep abreast of myriad technoscientific developments, let alone to adequately assess any resulting ethical frontiers. This is a manifestation of individualization, which has advanced to such a degree that even allied practitioner fields or academic disciplines – what Charles Fox and Hugh Miller (1995) refer to as “neotribes” – may have trouble communicating with each other because of incommensurable technical languages and values. I refer to this inability to engage in intertribal problem solving as *Tower of Babel syndrome*.

The more specialized and invisible the science and technology, the more likely that traditional Madisonian checks and balances will be ineffective, and that those seeking to profit from an innovation – and perhaps suffering from moral dilemma blindness – may exert too much influence over a public policy debate. Cultural lags could thus be extended beyond what is necessary to minimize harm. Consider how this applies to the little-known history of climate change research:

The long struggle to grasp how humanity could be changing the weather was an obscure effort. For many decades it was pursued by only a few

individuals, scarcely known except to their immediate colleagues. Yet their stories may be as important for the future of civilization as any history of politics, wars, and social upheavals. . . . By understanding how scientists in the past fought their way through the uncertainties of climate change, we can be better prepared to judge why they speak as they do today. (Weart 2003, vii-viii)

One of above points bears repeating: *The story of global warming science research may be as important for the future of civilization as any history of politics, wars, and social upheavals.* Social sciences such as public administration could not acknowledge this perspective without a radical expansion of their discursive boundaries – an expansion that directly challenges a scholarly tendency toward Tower of Babel syndrome.

Structural traps a signature feature of a risk society

The less readily understandable characteristics of risk society hazards can accentuate a knowledge gap between public administrators and elected leaders, to say nothing of the general public. The larger the knowledge gap between public servants and the rest of American society, the greater the distrust of administrative power – a distrust that may be partially fueled by the propaganda of vested interests opposed to closing an ethical frontier. Knowledge gaps can thus function as breeding grounds for political paralysis, in no small part because they invariably result in *structural traps*.

David Kantor and Steven Ober define a structural trap as a situation where individuals or social groups operate in a “boundary condition” where they are “caught between two cultures or ways of thinking” (1999, 265). These anxiety-provoking, high-stakes situations can result in maladaptive behavior. For example, a proposed policy that addresses an emergent hazard may receive praise from those with similarly specialized

knowledge but may be either ignored or decried by other academic disciplines, higher-level managers, elected leaders, or community stakeholders.

The proliferation of structural traps is a signature feature of public administration theory and practice in a risk society. Yet even within an individual subfield or public agency, the potential to transcend a structural trap may be limited. The “build a better mousetrap” theory of social change, which is summed up by the cliché, “Build a better mousetrap and the world will beat a path to your door,” is a popular but arguably inaccurate assessment of how social change usually occurs (Winner 1986). For example, Everett Rogers (1983) notes that it took almost two centuries for the British Navy to act upon the discovery of one of its officers that foods with vitamin C could prevent or cure scurvy, which at the time was the world’s leading killer of sailors. The successful diffusion of an innovation is contingent on a host of factors. In the case of vitamin C, a deciding factor could have been the lack of prominence of its champions in the British Navy vis a vis those with competing innovations.

Dissonance – a state of mental disequilibrium – results when an individual or group is confronted with a proposed innovation (Rogers 1983). Dissonance can be avoided by seeking only that information which confirms a position already taken, or reduced by selectively forgetting dissonant information. This can help explain why discursive boundary setting is pivotal to a social group confronted by rapid change. Efforts by inactivists to draw snug discursive boundaries can be interpreted as a rhetorical strategy designed to maintain the status quo in the face of a proposed paradigm shift by interactivists or reactivists. By the same token, an expansion of discursive boundaries can transform a social group. Such an expansion is likely to be destabilizing,

because it could increase the incidence of dissonance, which in turn could result in politically paralyzing structural traps. However, this may be a necessary step toward a paradigm shift that closes a risk society governance gap.

Will Moore's Wall overwhelm the generational cycle of paradigm shifts?

The expansion of discursive boundaries should not be viewed as merely a rationalistic exercise. O. C. McSwite (2002) argues that intellectually understanding a new paradigm falls far short of *apprehending* it on an experiential level – which is essential to taking a leap of faith and embracing a changed vision of reality. Changes in consciousness come before theoretical shifts. The fragmentation of public administration theory (see Chapter IX) may partly reflect a difference in life experiences – and resulting *gestalts* – of younger and older scholars. This illustrates the difficulties of anticipating a postmodern future within the paradigmatic consciousness of first modernity:

If oxygen cannot be described from within the phlogiston paradigm, and the medieval artist cannot give an account of Picasso, I (passing through the far end of middle age and having lived more than half of the twentieth century) certainly cannot claim access to the mind of the future. Even if I were magically able to fully discuss dimensions and implications of a new consciousness, they would appear as absurd or crazy to the contemporary way of looking at things. (McSwite 2002, 12)

This suggests that public administration's lack of attention to the dynamics of a risk society will not be solved by merely exposing the field to Beck's story line. To the contrary, risk society theory may continue to be ignored until the field gains a critical mass of new scholars whose life experiences result in a different consciousness.

This analysis has similarities to that of Thomas Kuhn's (1996), who argued that a paradigm shift is most likely to occur within the natural sciences during a generational

changing of the guard. This is because those who are younger and newer to a field will almost always be the leading champions of fundamental change. If the dynamic Kuhn described can be generalized beyond the natural sciences, this suggests that Moore's Wall could speed past the generational turnover of a discipline, profession, or public agency.

Does that mean an adaptational breakdown is all but inevitable for a social group such as the public administration scholarly community, where its structure (e.g., the tenure system) arguably enforces fairly long generational-turnover cycles? Or can you teach an old dog new tricks? Kantor and Ober (1999) hint that the latter may be possible if more attention were given to the psychological aspects of transcending structural traps. The consumptive psychology of institutional change will be discussed in Chapter VI, but for the moment assume that efforts to increase institutional reflexivity cannot stay apace of Moore's Wall. This leaves one other option: Could adaptational breakdowns be avoided by putting "brakes and a steering wheel" on technoscientific development, thereby slowing the pace of social change to more institutionally manageable levels? What would those constraints look like when applied to public administration in the face of a risk society's individualization pressures?

In light of the increasingly blurred lines between the public, nonprofit and private sectors, these questions are not just important for public administrators. For example, Matthew Paterson (2001) challenges Beck's (1999) argument that global warming could destabilize one of the most important symbols of first modernity – the insurance industry. This could result in the insurance industry pressing for a paradigm shift in global warming policies. Paterson documents how insurance companies have developed ways

to limit their financial exposure to the consequences of global warming – and have played only a superficial and peripheral role in advocating for stronger governmental action to limit greenhouse gas accumulation. This raises questions about Beck’s optimism that clashes between competing economic interests will generate reflexivity on mega-hazards.

However, Beck’s notion of “organized irresponsibility” captures neatly what is going on in relation to insurance and climate change. As insurers manage to adapt to the threat posed to their industry by global warming, they thus simultaneously manage to reproduce the general condition under which their own (partial) responsibility for reproducing a certain model of development is obscured. (Paterson 2001, 36-37)

In Selznickian terms, the insurance industry’s behavior can be described as opportunistic. This illustrates an attempt to perpetuate in a risk society a dominant pattern of corporate behavior in first modernity: externalizing costs onto others. The problem is that hazards delimited in time and space can dramatically magnify the negative impacts of opportunistic behavior (e.g., onto future generations). This can be particularly problematic in a deregulatory climate fueled by globalism.

GOVERNANCE SCALE AND COMPLEXITY THRESHOLDS

The scale of environmental hazards all but demands more macro-level and long-range theorizing. It is thus not surprising that the field of environmental studies has spawned some of the more ambitious exercises in whole-systems analysis. This section will briefly discuss two of them: Elgin’s (1981) life-cycle model of Western industrial civilizations and Brand’s (1999) temporal levels model.

Elgin, a pioneering whole-systems theorist, proposes that societies move through four stages: high growth, full blossoming, initial decline, and breakdown. An important

element in each stage is the health of governance. Elgin argues that Western societies have moved into initial decline, which he dubs an “Era of Cynicism.” In this stage, “consensus (is) very weak. Special interest group demands grow stronger than shared social purpose. Bureaucratic complexity mounts faster than the ability to effectively regulate; bureaucracies begin to falter” (Elgin 1981, 92).

Like Tainter (1988), Elgin does not assume that societal collapse is inevitable. A key factor in whether a breakdown occurs is if the complexity of society outpaces social learning. Drawing upon microeconomic theory, Elgin argues that the supply and demand for knowledge can be plotted on a two-dimensional complexity curve. Whereas society’s knowledge demands eventually bend sharply upward, the knowledge supply (or “learning curve”) invariably levels off (Elgin 1981, 254).

The foregoing suggests that for an extended period of bureaucratic growth, there will be no shortage of knowledge relative to that required to manage the growing bureaucracy effectively. However, within a very short span of time (or within small increments of growth in the scale of the bureaucracy) the knowledge demanded can rapidly overtake, and greatly surpass, that which can be readily supplied. In a very brief period of time we can lose the race with mounting complexity – the knowledge demanded will completely outstrip that which can be supplied. In turn, overly simple solutions will be applied to increasingly complex problems and the overall performance of the bureaucracies will begin to drop precipitously. The declining performance of the bureaucracy will exacerbate the problem of mounting complexity and soon even the most able decision-makers will be utterly overwhelmed through no fault of their own. (Elgin 1981, 256)

Elgin notes that new technologies (such as ever-more-sophisticated computer systems) can assist a bureaucracy in handling greater levels of complexity, but they can also require greater social learning.⁵ For public administration, one of Elgin’s (1981) most provocative arguments is that societal adaptability declines when the scale of bureaucracies becomes too large (Elgin 1981, 257-260).

Elgin's story line can be critiqued as overly deterministic, but it nevertheless poses a number of important challenges to public administration scholarship within a risk society context. For example, is there a mismatch between the apparent need for international responses to global warming and the upper limits of such large-scale social-learning capabilities? Is there a point where institutions such as the United Nations – or even the U.S. federal government – become too large to close a governance gap? If so, how can smaller institutions work together to adequately respond to a hazard that is delimited by time and space? Is it even possible?

Industrial issues backlog and quick techno-fixes

Elgin also brings to light what I call an *industrial issues backlog*. In an effort to escape the dissonance between familiar industrial hazards and the exotic new ones of a risk society, a social group may ignore or downplay the latter if it is already overtaxed with unfinished business. Political actors can become so consumed by the difficulties of long-standing issues that a social-change fatigue can set in, and inactivist or preactivist thinking may predominate. When even the most incremental policy initiatives on long-festering industrial problems have little hope of being implemented because of heavy political congestion, why spend precious discursive capital on a murky and complex risk society hazard that has not reached its tipping point? Consider global warming, which has been slow in becoming a top-tier American policy priority in no small part because of public indifference; e.g., in a national poll it ranked 20th among the leading problems confronting the U.S., behind such long-festering issues as jobs, healthcare, education, crime, and helping the poor (Pew Research Center 2009).

One strategy for dealing with an industrial issues backlog is to simply ignore an emerging hazard – an easy task if moral dilemma blindness is still prevalent. A more subtle response is to concoct a *quick techno-fix* that presents the appearance of action but requires a low enough investment of political capital that major actors can return to more immediately pressing problems – that is, those which reap higher dividends in an upcoming election, agency performance appraisal, or tenure review. A quick techno-fix is built upon technical or scientific innovations that offer the hope of avoiding normative structural traps that could result in political paralysis. This term is similar to what Peter Senge (1990) refers to as a *quick fix*, which is an intervention that attempts to treat a problem's symptoms but does not effectively address its root causes.

A quick techno-fix can function as the policy equivalent of a tourniquet, a stop-gap measure that buys time for more meaningful long-range responses. In other cases a technoscientific solution may not even be a quick fix – it could plausibly address the root causes of a problem. At issue are those instances where policy makers attempt to take a short cut in addressing a problem by substituting a technoscientific solution for one requiring some type of change in normative values and/or a redistribution of power.

A quick techno-fix could have two key side effects. First, what appears to be a benign technical response to a risk society hazard could have significant (and perhaps unintended) normative implications, e.g., by giving credence to the story line that technoscientific solutions are sufficient and/or political ones unachievable. This helps explain why a quick techno-fix is invariably rooted in technological somnambulism. Second, a quick techno-fix could delay necessary normative debate to a point where social learning is subsequently overwhelmed by accelerating complexity. The faster the

pace of change and the larger the industrial issues backlog – which could be quite substantial if we accept Elgin’s premise that American society is in a period of initial decline – the more likely that a massive adaptational breakdown could result.

Temporal dimensions of social learning

Brand (1999) offers a story line that focuses on the temporal dimensions of social learning. Drawing on the work of historian Eugen Rosenstock-Huessy (1969), he argues that a “robust and adaptable” civilization must maintain an equilibrium between six levels that operate at differing speeds: fashion/art, commerce, infrastructure, governance, culture, and nature. Fashion and art move at the highest speed, followed by commerce, and so forth. The speed of a society’s infrastructure development tends to be slower because of lengthy payback periods. “Governance and culture must be willing to take on the huge costs and prolonged disruptions of constructing sewer systems, roads, and communication systems, all the while bearing in mind the health of even slower ‘natural’ infrastructure, such as water, climate and so on” (Brand 1999, 37). A civilization gets out of balance when the different speeds of these six layers are not respected.

If commerce is completely unfettered and unsupported by watchful governance and culture, it easily becomes crime, as in some nations and republics after the fall of communism. Likewise, commerce may instruct but must not control the levels below it, because commerce alone is too shortsighted. One of the stresses of our time is the way commerce is being accelerated by global markets and the digital and network revolutions. The proper role of commerce is to both exploit and absorb these shocks, passing some of the velocity and wealth on to the development of new infrastructure, at the same time respecting the deeper rhythms of governance and culture. (Brand 1999, 37)

As the pace of change accelerates and its hazard footprints grow, Brand argues that civilization must become more conscious about how the six time scales interact. “When

we disturb nature at its own scale – as with our ‘extinction engine’ and greenhouse gases of recent times – we risk triggering apocalyptic forces” (Brand 1999, 39).

One implication of Brand’s story line is that a common criticism of government – that it does not change as quickly as commerce – may be a dangerous expectation. Instead of seeing slower-moving public-sector processes as hindering commercial innovation, they could instead be viewed as “speed bumps” that protect against hazards that result from technoscientific development. From this perspective, a key question is whether governmental speed bumps developed during first modernity still have the capacity to slow the exponential forces of change in second modernity.

The cultural contingencies of political congestion and subpolitics

Risk society theory suggests that political congestion is a symptom of the mismatch between the complexity of a problem and the capacity of a governance system to address it. Beck (1999) appears to view this congestion in a largely positive light, because subpolitical groups can use it to block problematic technoscientific development that may have previously received easy approval. One can point to a number of examples of U.S. environmental activists using political congestion to their advantage, e.g., bringing to a halt the construction of nuclear power plants for two decades. However, global warming is a good example of how political congestion can also work to the advantage of vested interests that seek to maintain organized irresponsibility.

Perhaps Beck’s optimism about the power of subpolitical networks can be at least partially explained by Christian Hunold and John Dryzek (2002), who argue that German and American environmental politics have had significantly different characteristics. In

Germany, subpolitical networks such as the anti-nuclear movement were largely shut out of formal political institutions until relatively recently, when for a time the Greens became part of a “left-green” ruling coalition. Being shut out resulted in a stronger and more autonomous political base that produced a more radical sustainable-development agenda than has been championed by leading U.S. environmental groups. Hunold and Dryzek argue that the American environmental movement’s greater access to the political system in the 1970s spawned wide-ranging policy innovation, but of a more incrementalist scale than has occurred in Germany. The U.S. may now find it more difficult to close governance gaps that require paradigm shifts in environmental policy.

Simulation and simulacra applied to the Kyoto Protocol

Policy responses to hazards with most or all nine risk society characteristics can result in governance gaps so large that quick techno-fixes are all but essential for avoiding politically paralyzing structural traps. Of course, the downside of quick techno-fixes is that symbolism to some degree substitutes for meaningful action. This substitution is much easier to impose on an unsuspecting polity because risk society hazards may not be tangible, visible, and immediate even to knowledge elites outside a given subfield, let alone to elected officials and the public at large. The concepts of simulation and simulacra can help assess the degree to which a social group substitutes pretense for reality in meeting its professed goals (Baudrillard 1994; Beresford 2000).

Consider the image versus the reality of the Kyoto Protocol (see Table III). In Level One, the image of the treaty is fully congruent with its stated goal of being an important first step toward global cooperation in reducing the build-up of greenhouse

gases. In Level Two, the image begins to deviate from reality because of the technical complexities of implementing the treaty, e.g., uncertainties in measuring whether signatories are staying within their agreed-upon emissions caps (Victor 2001, 59-60). The Kyoto Protocol could also be pointed to as an example of a Level Three simulation, because its image arguably masks a set of policies that may have a negligible impact on global warming even if it were fully implemented (Gelbspan 2004). From this perspective, the treaty hides the absence of a substantive commitment even by signatory nations to take the politically difficult steps needed to stop global warming.

TABLE III. Baudrillard’s phases of the image applied to the Kyoto Protocol

<i>Level</i>	<i>Phase of the Image</i>	<i>Image of the Kyoto Protocol</i>
<i>One</i>	The image accurately reflects a profound reality.	Kyoto is accurately presented as a significant and timely first step toward responding to global warming.
<i>Two</i>	The image masks reality; image is one of pretense.	Kyoto is presented as a systematic process for capping greenhouse gases, but noncompliance can be masked due to the difficulties of measuring emissions.
<i>Three</i>	The image masks the absence of reality.	Kyoto’s image hides the absence of effective measures to reduce greenhouse gases because of modest caps, numerous loopholes, and lack of participation from developing nations
<i>Four</i>	The image has no relation to reality: It is its own simulacra.	Kyoto becomes a central focus for forces supporting and opposing greenhouse gas regulation even though it may represent a virtually useless distraction from substantive action.

(Table structure closely patterned along the lines of Beresford 2000, 482)

Most ominously, the treaty could be viewed as simulacra – an image onto itself that has no basis in reality. In this Level Four scenario, the Kyoto Protocol functions as nothing more than a myth that becomes the focus of intense political debate even though it is virtually irrelevant (H. Scheer 2004). Here the treaty can be seen as the policy equivalent of a Disney theme park – an entirely symbolic construct whose practical meaninglessness may be largely invisible to the polity because the hazard itself is so abstract.

Simulation and simulacra could be viewed as increasingly dysfunctional gradations of a quick techno-fix. A faux-revolutionary simulation could be used to mask the unwillingness of an institution to address global warming. The opposite could also be at work: A simulation presented as protecting the status quo could result in revolutionary consequences: the melting of the polar icecaps. Chapter VIII further discusses how assessing the congruence of an institution's rhetoric, action, and outcomes can look like a funhouse of mirrors, where either-or thinking becomes exceptionally problematic.

CONCLUSION

Though public administration has taken a variety of forms throughout history, it has functioned as a technological innovation that polities have used to help close governance gaps. That so many bureaucratic operations look boringly routine belies the fact that they are, at root, social-change tools.

The development of administrative apparatus may help solve an immediately pressing societal problem, but it also tends to add complexity and scale to the system. The key question becomes: Can social learning keep pace with the system's added complexity and scale? Placed in a risk society context, is Beck too optimistic in implying

that public administration can keep pace with accelerating technoscientific development if it embraces reflexive modernization?

The evidence presented in this chapter suggests cause for concern. I have attempted to show that closing ethical frontiers created by technoscientific innovation has never been a particularly quick and painless process. However, at least first modernity's hazards operated at arithmetic speed and were significantly limited in time and space, which helped contain any side effects while social learning caught up with complexity. The major risks of second modernity offer no such container, which dramatically escalates the normative ramifications of policy debates. Yet many of these ramifications may be at least partially invisible because of factors such as Tower of Babel syndrome among knowledge elites. The revolutionary implications of an action (or, more likely, inaction) may be apparent to a relatively small cadre of professional Cassandras, but their interactivist proposals must survive a gauntlet of challenges from reactivists, inactivists, and preactivists, and compete for attention amidst an industrial issues backlog.

If paradigmatic change is required to close the great governance gaps of a world risk society, what are the normative underpinnings at play? Chapter IV will flesh out two key philosophical concepts.

CHAPTER IV

TWO KEY NORMATIVE FOUNDATION STONES

Just as world risk society hazards lead to fundamental shifts in the concept, place and media of politics, public servants are thrown into ethical frontiers that cannot be closed without struggling with Waldo's five problems of political philosophy. These struggles invariably unmask two sets of assumptions that pervade contemporary public administration theory and practice: A politics-technoscience dichotomy and an industrial ecology model. This chapter offers an overview of these concepts.

THE POLITICS-TECHNOSCIENCE DICHOTOMY

World risk society theory suggests that public administration has become part of the scientific elite rather than acts as a Madisonian counterbalance that attempts to democratize science's monopoly on rationality. The tendency has been for the field to practice technological somnambulism – that is, to legitimize and normalize technoscientific development and any potential hazards associated with it.¹

The normative basis for this behavior has been a steadfast – but often unacknowledged – embrace of a *politics-technoscience dichotomy*. This is a story line where the political economy is separated into two relatively distinct spheres: the political

and the technoscientific. The latter sphere enjoys significant autonomy to unleash upon humanity and the biosphere ever-more-exotic experiments. Governments may regulate vast areas of human endeavor, but rarely have they banned a line of scientific inquiry or technology, and usually only after a long cultural lag. Indeed, public agencies have often built the infrastructure needed for technoscientific development.

A politics-technoscience dichotomy dovetails with another underpinning of American public administration: a *politics-administration dichotomy*. This story line draws a distinction between policy making, which is to be conducted by elected leaders, and policy implementation carried out by public administrators (Waldo 1984). The politics-administration dichotomy attempted to assuage fears about the rise of an administrative class by insisting that it would not usurp the traditional policy-making power of elected officials. By the same token, a politics-technoscience dichotomy has attempted to calm fears about the revolutionary potential of technoscientific development by arguing that it would not undermine the founding traditions of American government.² Of course, the latter story line has never been a fully accurate reflection of reality: The perdurability of the U.S. constitution notwithstanding, the technoscientific developments of industrialization *has* radically changed the character of the American polity from its decentralized agrarian beginnings.

A politics-technoscience dichotomy is built around five assumptions:

1. A normative bias toward technoscientific rather than political solutions to vexing social problems.
2. An innocent-until-proven-guilty regulatory mindset – even in the face of considerable uncertainty about potential hazards of an unprecedented scale.

3. A private/public-sector duality, whereby industries are largely free to exploit the ethical frontiers of technoscientific development, with government assigned the role of legitimizing and mitigating any resulting side effects.
4. Governmental regulations that largely focus on merely reducing the public's exposure to technoscientific hazards rather than eliminating them.
5. A significant separation between risk assessment and risk management, where public administration manages risks as assessed by scientists.

Attacks against any of these five pillars of the politics-technoscience dichotomy are invariably met with the argument – either overtly or as subtext – that incursions by the political realm into the technoscientific must be minimized in order to avoid killing the golden goose of innovation, which is assumed to be essential to the Good Life, e.g., maintaining economic competitiveness, extending life spans, and increasing personal fulfillment through new adventures in consumption. This story line is built upon the underlying belief that technological progress virtually always equals social progress.

In practice, the dichotomy's five elements tend to operate synergistically. However, each is a distinct manifestation of first modernity's radical specialization of knowledge and labor, so may be useful to discuss individually.

1. Technoscientific bias in problem solving

Former Israeli Prime Minister Shimon Peres illustrates this perspective in his stark declaration, "I do not see much hope in the political domain, but a lot of hope in the technological domain. . . . (The world's problems) will be solved not by politicians but by technology." Peres is especially enthusiastic about nanotechnology, which "will play

a major role in the battle with terrorists,” e.g., it could eventually allow Israel to replace soldiers on the battlefield with so-called “smart dust.” Peres acknowledges that these technologies have “the power to destroy the world,” but he is optimistic that humans will exercise good judgment with them (in Kirkpatrick 2004).

Embedded in Peres’ argument is a key contradiction of a quick techno-fix: that the technoscientific realm can solve problems more quickly than the political realm, yet social learning in politics must inevitably increase in proportion to the complexity and hazard footprint of technoscientific development. For example, good judgment on the part of political leaders in the U.S. and Soviet Union became vastly more important after both nations developed nuclear arsenals. A hair-trigger response to an international incident could set in motion the end of civilization in minutes.

2. Innocent until proven guilty

A key manifestation of a bias toward technoscientific rather than political problem solving is an innocent-until-proven-guilty principle. Here science is essentially free to use the planet as a laboratory experiment.

Chlorofluorocarbons (CFCs) illustrate the limitations of the innocent-until-proven-guilty principle when a hazard footprint grows too large. Recent international efforts to restore the ozone layer by phasing out this family of chemicals could be viewed as the world’s most successful attempt to close a major risk society governance gap. Even so, the cultural lag and hazard footprint are both alarmingly large. CFCs were in widespread use for 40 years before scientific evidence emerged that these chemicals were instrumental in depleting the ozone layer. Because of political compromises,

implementation difficulties, and the atmospheric lifecycles of some CFCs, it could take decades for the ozone layer to be significantly repaired (Farman 2002, 80-81; Dauvergne 2008, 129). This lag could have a variety of harmful impacts, e.g., the United Nations estimates that ozone depletion will likely contribute to millions of skin cancers per year (Clark et al. 2001). Because the average latency period for these kinds of cancers is 30 to 40 years, the cancer rate may not peak until circa 2050 (Farman 2002, 80).

All told, it took roughly 70 years to close the ethical frontier on CFCs, and their harmful impacts could span another century. Poul Harremoes et al. (2002) argue that CFCs were not an anomaly. A study of this and 11 other hazardous technologies and practices (e.g., asbestos, PCBs, sulfur dioxide, acidification, and overfishing) found time lags as long as 100 years between when scientists discovered serious problems and when substantive counter-measures were successfully implemented. The case studies

provide many examples where “early warnings”, and even “loud and late” warnings, were clearly ignored; where the scope of hazard appraisal was too narrow; and where regulatory actions were taken without sufficient consideration of alternatives, or of the conditions necessary for their successful implementation in the real world. (Harremoes et al. 2002, 216)

3. Public/private-sector duality

This duality is a corollary to the innocent-until-proven-guilty principle because it allows industry significantly unrestricted freedom to exploit the ethical frontiers of technoscientific development. With rare exceptions, the role of government is to legitimize and mitigate any resulting side effects rather than to proactively ban a technoscientific innovation altogether. The biggest practical effect of the duality is an extension of cultural lags and ethical frontiers.

An example of this dynamic was the American auto industry's refusal to include basic safety equipment in its cars because it would put individual firms at a cost disadvantage which would not be compensated for by greater consumer demand because "safety doesn't sell" (Cray 1980, 366). When the federal government finally proposed imposing safety regulations in the late 1960s, automakers and their allies in the press railed against them with dire predictions of industry collapse. It didn't happen. Indeed, one could argue that regulation helped legitimize and normalize the dangers of automotive driving. Curtis White (2003, 105) notes that the deaths and injuries due to traffic accidents between 1985 and 1999 – more than 3.2 million Americans – dwarfed the losses in the Korean and Vietnam wars but were largely ignored by the news media because they were considered the price of progress.

The public/private sector duality remains a dominant theme in the American political economy despite the rise of a "social responsibility" movement within the business community (e.g., Hawken 1993; Elkington 2001).

4. Reduce exposure to a hazard rather than eliminate it

Government's focus on reducing exposure to a hazard rather than eliminating it reflects a public policy incrementalism that is an outgrowth of the public/private duality.

Bob Doppelt (2003) argues that an emphasis on hazard reduction is a product of a governance system whereby laws tend to be made in piecemeal fashion by a diversity of agencies that must broker regulatory compromises between industry and other stakeholder groups. Rarely do regulations require fundamental changes from manufacturers in terms of extraction processes, materials and energy selection, or waste

disposal. Regulation can thus function as a “license to harm: a permit issued by government to industry so that it may dispense sickness, destruction, and death at an ‘acceptable rate’” (McDonough and Braungart 2002, 61). For example, manufacturers may be required to reduce their emissions by 30 percent per unit, but their total emissions could increase if their production capacity expands (Doppelt 2003, 52).

This may be a reasonable public policy approach for hazards whose dangers are modest or grow incrementally. But what about when growth is exponential, or new research suggests a much higher danger than was previously assumed? For example, a report produced by a coalition of U.S. environmental groups found that “more than half of the fish in the nation’s lakes and reservoirs have levels of mercury that exceed government standards for women of child-bearing age and children” (Janofsky 2004). The coalition pointed to their findings as evidence for the need to cut mercury emissions at coal-fired plants by 90 percent. If these plants produced 90,000 pounds per year of U.S. mercury emissions – which represents only 41 percent of total emissions – the coalition’s policy proposal would still allow the production of a considerable amount of this toxic substance. Despite industry denunciations that the proposal would “cause massive disruptions” to the nation’s electricity generation system, it nevertheless represents a license to continue distributing a significant hazard.

5. Risk assessment/risk management separation

Joe Thornton (2000) argues that scientists have held a monopoly on assessing risk, and their judgments have been submitted to public administrators to manage. This has led to an insidious scientism, whereby the “deployment of scientific authority (has

been) used to justify political or cultural positions that are not solely determined by science” (Thornton 2000, 417). In addition, regulatory agencies have sometimes used the shield of “good science” to avoid values-based debates about chemicals whose dangers to humanity, Thornton argues, could end up rivaling that of global warming.

Yet for all of the rhetoric about good science, risk assessment methodology can be questionable because it has focused on substance-by-substance discharge limits over a relatively short period of time. One problem with this methodology is that chemicals which are benign in isolation could become dangerous over the long run after mixing with others in the environment (Thornton 2000).

Dichotomy results in an increasingly problematic ‘toxic culture’

The politics-technoscience dichotomy has played a key role in the creation of what Richard Hofrichter calls a “toxic culture,” which he defines as a “way of life and overall social conditions (that) can make communities unhealthy” (2000, 1). Elements of a toxic culture include the production of dangerous technologies, but the term is also

a metaphor for the way language, concepts, rituals, valuation processes, and policies frame the debates over major issues, ignoring political conflict and relations of power that influence human and community health. These power relations generate their own logic, ideology, myths, symbols, and cultural norms. More important, we are often unaware of their existence. The acceptance of this culture is manifest in the way many risks to human health are taken for granted, as expected consequences of technological development, or are treated as problems to be managed by public policy. (Hofrichter 2000, 1-2)

From this perspective, the hazards of technoscientific development are not inevitable mistakes best cleaned up via technical means, but are a manifestation of fundamental normative commitments, e.g., what constitutes the Good Life.

One could argue that the politics-technoscience dichotomy served American democracy reasonably well as long as the hazard footprint of technoscientific development was limited in time and space. But what about when technoscience becomes so powerful that its hazard footprints stretch around the globe and across many generations? Does the rise of a risk society require public administration to reject the dichotomy if it is dedicated to democratic ideals that include protecting the interests of future generations, less powerful nations, and the biosphere?

The field's involvement in the development and perpetuation of a toxic culture deserves wider debate. At issue is not only what technoscientific developments public agencies might reject. Equally important is what vision of the future public servants espouse – and manifest through their activities. Public agencies routinely make decisions about the use of science and technology in their operations. For example, should a public utility district invest in another gas-fired plant, or in solar power?

While presented by preactivists as utilitarian choices grounded in the likes of cost-benefit analysis, these questions invariably touch on one or more problems of political philosophy. Waldo (1965, 15) recognized this when pointing out that even the lowly typewriter was not a “neutral” instrument – its technology and usage were rooted in a host of normative choices about the nature of American bureaucracy.

Beck (1999) expresses hope that the dynamics of reflexive modernity will cultivate a more skeptical approach to unfettered technoscientific development. This may be occurring in some instances, but it is more often questionable whether the scale and speed of change is sufficient to close key governance gaps. The inadequacy of responses may be partially rooted in another set of obsolete normative commitments.

THE INDUSTRIAL ECOLOGY MODEL

The depths of the normative issues at play can be illustrated by analyzing the dominant mode of contemporary environmental problem solving – what I call the *industrial ecology model*. This concept, which draws heavily upon the work of Lamont Hempel (1996), adds useful nuance to risk society theory.

The industrial ecology model assumes that if ecological exploitation leads to side effects harmful to humans, society has the technoscientific knowledge to solve or mitigate hazards with only minor or transitory impacts on our personal, organizational, and societal core values, power relationships, and consumptive practices. Furthermore, environmental protection is seen primarily as a technical, management, and/or economic problem to be relegated to specialists who largely operate in the privacy of their laboratories, academic subfields, governmental departments, and corporate offices.

Whether intended to or not by its proponents, the industrial ecology model legitimizes and normalizes the colonization of future generations, less powerful nations, and other species when applied to major risk society hazards. Indeed, while presented as a politically pragmatic and incrementalist approach, the application of the industrial ecology model can paradoxically lead to policymaking with revolutionary implications.

Risk society theory effectively argues that mega-hazards will not be adequately addressed without ruling the industrial ecology model obsolete – and developing new theories, institutions and daily practices grounded in models that recast prevailing relationships between humans and nature, technology and quality of life, as well as scientific expertise and democracy. Hempel (1996) argues that this will require changes in two key core values: anthropocentrism and contempocentrism.

Anthropocentrism is a form of colonization that gives greater weight to human wants and needs than the viability of other species and the biosphere. An extreme form of anthropocentrism is that humans should have dominion over the planet, and that the biosphere has value only to the degree that it can benefit people (Hempel 1996). Anthropocentrism can result in belated efforts to address environmental hazards that are perceived to be a greater threat to species other than to humans. For example, despite the emergence of environmental-protection laws, biologist E. O. Wilson estimates that if present trends continue, by 2030 one fifth of all plant and animal species will be in danger of extinction, and that half may be gone by the end of the century (2002, 102).

Contempocentrism is another form of colonialism that is glibly summarized by the bumper sticker, "I'm spending my children's inheritance." This core value gives greater weight to humans' short-term wants and needs than to those that are longer term, particularly intergenerational. Hempel views contempocentrism as "both a cultural value and to some extent a genetically programmed survival trait" (1996, 69). An extreme form of contempocentrism would be generational totalitarianism, whereby it is considered ethically acceptable for today's citizenry to engage in behavior that will clearly harm the life, liberty, and pursuit of happiness of future generations without their consent. Such a normative commitment is rarely stated explicitly, but Hempel argues that contempocentrism is embedded in mainstream economic theory, with its emphasis on maximizing net present value.

I would add three other core values: lococentrism, rationalism, and giantism.

Lococentrism gives greater weight to one's social group over that of others. This core value can manifest at all levels of human interaction. Slavery is an extreme form of

lococentrism; so are nationalistic and racist ideologies such as Nazism. An insidious contemporary example of lococentrism is professional neotribalism (Fox and Miller 1995), but I would also put in this category classism and patriarchy.³

Rationalism is the underlying basis for the assumption that society has developed the intellectual capacity to solve whatever problems technoscientific development causes. Technical-rational decision-making processes are privileged, as is the view that ignorance is a solvable problem. This story line is summarized by David Orr: “There are no dilemmas to be avoided, no domains where angels fear to tread” (1992, 25). Rationalism is most explicitly displayed by proponents of quick techno-fixes. To varying degrees their utopianism is deeply embedded in much of the social sciences and industrial culture (Segal 1985), e.g., with enough science and technology we can cure cancer or stop global warming. Some ecofeminists argue that rationalism is at the root of environmentally destructive behavior because it creates lopsided value dualities such as human/nature, masculine/feminine, reason/emotion, spirit/body (Warren 2000, 23).

Giantism gives greater weight to legal, economic, and social forms of organization that operate on an increasingly large scale. As will be discussed in the next chapter, this is closely linked with commoditization (Manno 2002). This can be seen in globalism, which privileges multinational corporations (Korten 2001b). While giantism was significantly fueled by industrial society’s Fordist regime, with its emphasis on standardized mass production, giantism’s normative roots reach back to antiquity. The drive to create the empires of world history can at least partly be ascribed to an ideology of growth, which views expansion and change as superior to a steady state of affairs. Giantism is embedded in contemporary economic theory, which tends to marginalize or

reject outright the need for limits to growth, particularly when it comes to the Earth's ecological carrying capacity (Daly and Farley 2004).

Environmental destruction results when the core values of the industrial ecology model interact with destructive amplifiers, consumptive behavior, and the structure of the political economy. Table IV draws heavily from a Hempel typology (1996, 62).

- Hempel describes destructive amplifiers as the means by which values and practices become more dangerous. Population growth and technoscientific development are the key amplifiers of environmental hazards.
- Consumptive behavior displays the tension between consumption and ecological carrying capacity. Hempel includes poverty and affluence. I would add addictions because of the role they can play in perpetuating overconsumption, which will be discussed in the next two chapters.
- Hempel includes in the political economy of environmental destruction two factors: the failure of a given market to internalize environmental costs, or the failure to create a market. I have added a third factor, technocracy, which gives knowledge elites a privileged status in drawing the discursive boundaries around how environmental issues are addressed by a polity.

Table IV illustrates the value of linking constructivism and realism. Core values may be best unmasked through constructivist analysis, while destructive amplifiers may be made more visible through empirical research. For example, anthropocentric and contempocentric story lines may be drivers of air pollution, but measurable phenomena such as population growth, technoscientific development, and consumptive practices have transformed this formerly localized problem into global warming.

TABLE IV. Driving forces behind environmental destruction

Core values — The underlying beliefs that structure human attitudes toward ecological issues.

- Anthropocentrism (privileging human wants over the viability of other species).
- Contempocentrism (privileging current citizen wants over those of future generations, and newness over tradition).
- Lococentrism (privileging one's own group over others, e.g., less powerful nations).
- Rationalism (privileging the human intellect in solving society's most pressing problems).
- Giantism (privileging large-scale activities over those that are small and tailored to local conditions).

Destruction amplifiers — The means by which values and consumptive practices are extended.

- Population growth (myriad impacts of projected exponential global growth).
- Technoscience (e.g., the side effects of chlorofluorocarbons on the ozone layer).

Consumptive behavior — The tension between consumption and ecological consequences.

- Poverty (e.g., fuel wood consumption leads to deforestation in developing nations).
- Affluence (e.g., high consumption levels of "disposable" goods).
- Addiction (psychological and/or physical inability to change destructive consumptive practices).

Political economy — The dominant ideology used to explain ecological problems.

- Market failure (e.g., unpriced costs of fossil fuels regarding greenhouse gases).
 - Failure to have markets (e.g., international overfishing as a "tragedy of the commons").
 - Technocracy (the privileged status of technoscientific experts).
-

Implications of the industrial ecology model in a risk society

The five core values of the industrial ecology model dominate American environmental policy. While most of these values operate synergistically, two of them –

lococentrism and giantism – can at times contradict each other. A key governance gap of a risk society is a political system built largely around the lococentrism of the nation state, and a globally integrated economic system grounded in giantism.

Anthropocentric views are not necessarily incompatible with environmental protection (Hempel 1996). Stopping global warming serves the interests of humans even though other species may enjoy greater short-term benefits. Much the same could be said of each core value. This is why policy steeped in the core values of the industrial ecology model has been successful on a number of fronts.⁴ Indeed, the industrial ecology model might continue to satisfy, to draw on Herbert Simon's (1976) memorable term, as long as first modernity lasted. Alas, risk society dynamics make it harder to operate by the above core values. Lococentrism and contempocentrism have fueled opposition to the Kyoto Protocol in even green-leaning Canada (Parson 2001; Reguly and Vanderklippe 2009). Rationalism and giantism are the driving values behind questionable high-tech responses to global warming, such as injecting carbon dioxide deep into the ocean or shading the planet with tiny metal balloons (Pearce 2004). Furthermore, the poaching of endangered species is legitimized by anthropocentrism (E. Wilson 2002).

One factor that makes contempocentrism so insidious in a risk society is that it may be accompanied by the unbinding of politics. Global warming is less likely to be averted primarily through command-and-control governmental actions rather than by the subpolitics of personal and organizational life because it represents the accumulation of greenhouse gases from a diversity of human activities, many of which may be difficult to regulate in a democratic and capitalist society. Generational totalitarianism stems not

so much from a centralized political structure but from an individualization process whereby dominant consumption practices effectively colonize future generations.

The scientific implications of disciplinary lococentrism can be illustrated by the discovery of global warming. The theory that human-made greenhouse gases could significantly change the planet's climate took roughly a century to migrate from the fringes of scientific respectability to a school of thought with a critical mass of support (Weart 2003). One could argue that this evolution proceeded much more slowly than it might have because of first modernity's radical specialization of knowledge and labor.

Climate change theory was woven from research in dozens of fields – each with its own unique discursive boundaries, political economies, and dominant personality types. One researcher complained that this diversity “has made it impossible to work . . . with common and well established definitions and methods” (Weart 2003, 34).

The story of the discovery of global warming looks less like a processional march than like a scattering of groups wandering around an immense landscape. Thousands of people are laboring on studies that may tell something about climate change only by chance. Many of the scientists are scarcely aware of one another's existence. Over here we find a computer master calculating the flow of glaciers, over there an experimenter rotating a dishpan of water on a turntable, and off to the side a student with a needle teasing tiny shells out of a lump of mud. This kind of science, where specialties are only partly in contact, has become widespread as scientists labor to understand increasingly complex topics. (Weart 2003, viii-ix)

Global warming is thus a symptom of a key scholarly challenge in a risk society: how to overcome Tower of Babel syndrome. Beck and Beck-Gernsheim's (2001) concept of individualization might be extended to suggest that centralized efforts to decree greater interdisciplinary collaboration on a risk society hazard may be as futile as communitarian efforts to revive traditional notions of family and nation state. At the same time, the state

of global warming science might also be viewed as a triumph – however belated – of subpolitical, rule-altering entrepreneurs who defied the discursive boundaries of their disciplines to connect the dots, both between scholarly disciplines as well as between technoscientific and political spheres.

Hempel (1996) does a good job of essentially summing up the governance gap between the dangers of risk society hazards and the capacity of contemporary governance systems to address them. His analysis is worth printing at length because it illustrates the intermingling logics of anthropocentrism, contempocentrism, lococentrism, rationalism, and giantism as applied to environmental hazards.

Right now, global environmental problems do not strike most observers as clear and present dangers, at least to our species. The argument that environmental threats will soon loom larger than economic or military ones is simply not credible to those who remember the Great Depression, Auschwitz, or Hiroshima. So maybe there *is* an increase in future skin cancers as a result of a depleted ozone; and maybe the climate *does* change in ways that cost us money and comfort; and maybe the loss of rainforests, whales, and a smog-eaten Parthenon or Sphinx *will* leave a nostalgic void from time to time. But why should we treat these environmental impacts with any greater concern than we treat the challenges of building a competitive workforce, defending democracy, or developing free and fair world trade? Why, indeed, should we act in advance of scientific confirmation that many of the feared environmental threats are real? (Hempel 1996, 3; original italics)

This story line shows the dissonance that can result when the industrial ecology model is applied to a risk society hazard within the context of an industrial issues backlog, e.g., building a more competitive workforce. From this perspective, global warming is so different from industrial hazards that it might seem as implausible as a sci-fi plot line to those raised to believe a central tenet of the industrial ecology model – that science and technology are advanced enough to solve any environmental problems they may create.

The above story line has plausibility, in no small part because of scientific uncertainty. Is it not possible that the global warming projections of the IPCC *could* turn out to be overly pessimistic? The only honest answer to that question is yes because climate modeling is still a fledgling science (e.g., Christianson 1999; Edwards, 2001; Weart 2003; Oreskes 2007). But – and this is the normatively crucial caveat that is all-to-often sidestepped by defenders of a go-slow approach to global warming – what if the IPCC’s 2007 projections turn out to be too conservative, as suggested by some scientists (Allison et al. 2009)? More broadly, what if the Worldwatch Institute was prescient by arguing back in 1999 that an “environmental revolution” comparable in sweep to the industrial revolution needs to occur *within a few decades* if a handful of global ecological disasters are to be averted (Brown 1999)?

CONCLUSION

If the politics-technoscience dichotomy and industrial ecology model are obsolete, what is the likelihood of their transcendence before global warming spirals out of control? After all, the U.S. was built upon the declaration that “all men (*sic*) are created equal,” but it took a century to outlaw slavery – a premodern form of lococentrism – and another century to eliminate legally sanctioned segregation.

This raises a handful of broader questions that build upon the discussion in Chapter III: Can social learning be sufficiently accelerated within the structure and culture of the U.S. political economy? If not, what are the alternatives that offer a better chance of closing governance gaps? Is it possible for democratic systems of governance to keep up with the hazards created by exponential technoscientific development?⁵ This

brings up a central paradox of a risk society: Government may be a crucial stabilizing force because it functions as a speed bump for commerce, but it may also need to spearhead much faster social learning in the polity than it historically has accomplished.

These issues balloon to such grand proportions – and become enshrouded in the exotic languages of specialized technoscientific knowledge – that a whole-systems fatigue can lead to a case of future shock. This may result in institutional maladaptations such as overcompartmentalization, opportunism, or utopianism. Public agencies may be most susceptible to overcompartmentalization and opportunism as defenses against pressures from political actors with vested interests in perpetuating a fossil fuel-based political economy (and its normative underpinnings).

In theory, scholars and civic activists should possess greater discursive freedom to unmask the obsolescence of the politics-technoscience dichotomy and industrial ecology model, but the sheer size of a risk society's governance gaps can create an equally dangerous occupational hazard: flights into abstractions that distract knowledge elites from timely and pragmatic actions.

Not an optimistic picture. But if Beck is correct, the volatility of technoscientific change leaves the door open to unpredictable rule-altering societal tsunamis. The biggest wild card here could be whether altruistic individualism lives up to Beck's billing as a pivotal force for institutional change. Chapters V and VI will delve into that question through the lenses of commoditization and consumptive citizenship.

CHAPTER V

CONSUMPTION AND COMMODITIZATION

The next two chapters argue that consumptive practices have a significant, if often unacknowledged, relationship to the normative political shape of the state – and public administration. This is particularly apparent in a risk society, where “private” consumptive practices can result in revolutionary “public” political change because of the size of their hazard footprints after individual actions are aggregated.

This chapter presents an overview of how consumptive practices impact environmental destruction. Then consumptive practices are analyzed through the lens of commoditization. This concept provides a historical framework with which to view the rise of an industrialized political economy in the United States, and the administrative structure needed to support it.

CONSUMPTION PATTERNS AND ENVIRONMENTAL DESTRUCTION

The Organization for Economic Cooperation and Development (OECD) defines consumption as “a series of activities from the selection and use of a product or service through its disposal” (2002, 16). Goods and services can be obtained through market and nonmarket mechanisms (e.g., the family or the environment).

Consumption patterns have always translated into political change. What distinguishes a risk society is the unprecedented importance of subpolitics in impacting equally unprecedented hazards such as global warming. Today's consumers collectively have more world-changing power than the mightiest kings and dictators of yore: their everyday practices could help melt the polar ice caps. Indeed, Alan Thein Durning (1992) has argued that escalating consumption is a more significant factor in many environmental problems than population growth. The numbers are worth pondering:

Worldwide, since mid-century the per capita consumption of copper, energy, meat, steel, and timber has approximately doubled; per capita car ownership and cement consumption have quadrupled; plastic use per person has quintupled; per capita aluminum consumption has grown sevenfold; and air travel per person has multiplied 33 times. (Durning 1992, 29)

These consumption patterns are expected to continue growing. Energy use by OECD member nations is projected to jump 30 percent between 1999 and 2020 despite efficiency gains, miles traveled by motor vehicles are expected to increase by 40 percent, and global air travel could triple (OECD 2002). In addition, municipal waste is projected to grow by 38 percent between 2005 and 2030 even with increased recycling rates (OECD 2008). This growth is driven primarily by rising per capita income, demographic changes (e.g., more single-person households), and a shift to processed and packaged products (OECD 2002).

Escalating consumption could spark violent conflicts. Rafael Reuveny (2002) argues that imbalances between less-developed countries and the industrialized world could lead to resource wars. For example, fights over water could become more important than that of oil as the world's population grows and global warming shifts the availability of water (Pearce 2004; Brown 2009).

The U.S. has long been the world's largest consumer of oil. In 2008 it used 20 percent of the world's crude oil output (CIA 2010). This goes a long way toward explaining why the U.S. has been the world's leading producer of greenhouse gases, only overtaken in 2007 by more populous and fast-industrializing China. Although the U.S. has comprised only 5 percent of the world's population, as of the turn of the century it produced 24 percent of the world's greenhouse gases (EIA 2010).

World consumption patterns vary by economic class

Durning (1992) provides a useful framework for viewing the ecological implications of global consumption patterns. He suggests that humanity fits into three classes: consumers, middle-income, and poor (see Table V).¹

TABLE V. Global consumption classes

	<i>Consumers (1.1 billion)</i>	<i>Middle income (3.3 billion)</i>	<i>Poor (1.1 billion)</i>
<i>Diet</i>	Meat, packaged food, soft drinks	Grain, clean water	Insufficient grain, unsafe water
<i>Transportation</i>	Private cars	Bicycles, buses	Walking
<i>Materials</i>	Throwaways	Durables	Local biomass

(Verbatim from Durning 1992, 27)

Although Durning designates the bottom end of the consumer class as only slightly above the U.S. poverty line, even this income allows a lifestyle unprecedented in history. This class, which encompasses most of the population of industrial nations and varying

percentages of developing regions, spends most of its time in buildings equipped with technologies such as air-conditioning and microwave ovens. Travel is often by automobiles and airplanes, and diets tend to be dominated by meat, packaged food, and soft drinks. In Durning's view, the consumer lifestyle, especially as it is practiced in the U.S., is not environmentally sustainable. Yet the world's consumer class accounts for most of the dramatic increase in resource consumption during the past half century.

On the other end of the spectrum are the poor, whose lifestyles are typically marked by a lack of safe drinking water and adequate amounts of grain. Durning (1992) does not suggest that poverty is ecologically benign. Deforestation is partly the result of growing numbers of poor who rely on firewood as a fuel source (Hempel 1996). But Durning does point to data that consumption by the poor has remained relatively stable.

Meanwhile, Durning (1992) classifies the bulk of humanity as middle income. He views this class as a model of efficient consumption practices because it has attained reasonably healthy and comfortable lifestyles that are also much less ecologically destructive than those of consumers. For example, although the world's middle class tends to have basic electrical appliances such as refrigerators and clothes-washing machines, it also generally travels by bus and bicycle.

The consumptive gap between the have's and have not's is summed up by data from a research arm of the United Nations:

It has been estimated that the richest 20 percent of the world's population accounts for 86 percent of total private consumption expenditure, consumes 58 percent of the world's energy, 45 percent of all meat and fish, 84 percent of paper, and owns 87 percent of cars and 74 percent of the telephones. Conversely, the poorest 20 percent of the world's population consumes 5 percent or less of each of these goods and services. (UNEP 2002, 35)

Globalization is encouraging the world's middle class to join the ranks of the consumer class (Conca 2001). What's wrong with this? One study found that humanity's level of consumption began overshooting the Earth's ecological carrying capacity in the mid-1980s. If everyone reached average U.S. consumption rates, more than 4.5 planet earths would be required to support their resource needs (Ewing et al. 2008; 12, 16). Anne and Paul Ehrlich summarized the apocalyptic story line of many consumption critics by arguing that Americans

are the archetype of a gigantic, overpopulated, overconsuming nation, one that many ill-informed decision-makers in poor nations would like to emulate. Unless we demonstrate by example that we understand the horrible mistakes made on our way to overdevelopment, and that we are intent on reversing them, we see little hope for the persistence of civilization. (in Roszak 2001, 36)

The politics of consumption reduction

The Sierra Club policy has argued that the U.S. could rapidly reduce its energy consumption by as much as 30 percent with relatively simple measures such as switching to more efficient appliances. Such a policy direction has elicited political resistance even though the U.S. uses double the energy per capita as wealthier European countries to achieve a comparable standard of living: "For most Americans," notes Dan Becker, "personal responsibility means single mothers on welfare ought to go to work, not that they themselves should reduce their consumption" (in Pye-Smith 2002; 218-219).

This attitude is a reflection of the industrial ecology model. Contempocentrism, anthropocentrism, and lococentrism are so pervasive that one of the most successful criticisms of environmental-protection proposals has been that they would undercut the economic growth needed to sustain consumption levels. Indeed, support for

environmental-protection policies is most vulnerable when economic conditions are shaky (Guber 2003, 70). This is why environmental hazards provide a useful case study of the dissonance of public political action and private consumptive behavior. A number of researchers have documented that the selling of “green consumerism” has been significantly more successful than getting people to vote for environmentalist candidates and initiatives (e.g., R. Mitchell 1984; Dunlap 1987, 1991; Guber 2003).

In an effort to avoid being tarred with an “extremist” brush, environmental groups have usually tried to sidestep the issue of consumption in favor of a focus on the production-side aspects of environmental degradation (Princen, Maniates, and Conca 2002). The problem with this strategy is it may result in only short-term and superficial gains. As a case in point, the U.S. energy policy that emerged from the 1970s oil crises focused heavily on increasing the fuel economy of individual automobiles. Even though federal regulations resulted in an almost 35-percent drop in the average fuel consumption of automobiles between 1970 and 1990, these savings were canceled out because the average annual miles per vehicle soared by more than 60 percent (Princen, Maniates, and Conca 2002, 9). Auto fuel consumption is a proxy for their greenhouse gas production.

Consumption patterns are also downplayed or ignored in academia, where there is an economic emphasis on demand curves rather than assessments of how consumption contributes to social and environmental problems (Princen, Maniates, and Conca 2002).

OVERCONSUMPTION AND COMMODITIZATION

Thomas Princen defines *overconsumption* as “that level or quality of consumption that undermines a species’ own life-support system and for which individuals and

collectivities have choices in their consuming patterns” (2001, 19). This is an aggregate-level concept. Overconsumption can result in catastrophe for a species even though individual behavior may appear to be quite reasonable – at least until the ecological crisis becomes visible. Indeed, collective consumptive patterns may also appear to be reasonable when viewed through the lens of the industrial ecology model.²

Jack Manno (2002) argues that *commoditization* is a key driver of overconsumption, particularly in industrial nations. Commoditization is defined as

the tendency to preferentially develop things most suited to functioning as commodities – things with qualities that facilitate buying and selling – as the answer to each and every type of human want and need. In many ways, commoditization is the same as industrialization, but looked at through the lens of consumption. (Manno 2002, 70)

Systems of barter and sweat equity, which once were significant features of rural living, have given way to urban lifestyles dominated by the acquisition of commodities largely through the exchange of money. A commodity is defined by five primary qualities:

- Alienable, the ease with which ownership can be asserted, assigned, and transferred
- Standardizable, independence from the particularity of geography or culture
- Autonomous, the ability to be used independently, outside the constraints of social relationships
- Convenient, the ease with which it can be used
- Mobile, the ease with which something can be packaged and transported (Manno 2002, 71)

Commoditization increases the commodity potential of a good or service to a higher level. Table VI summarizes the commodity potential of five basic needs. Mental health illustrates the differences between a good or service with varying levels of commodity potential. Mood-altering drugs have a high commodity potential because these products have “distant or abstract relations between the producer and consumer.” In contrast, peer

counseling and mutual help have low commodity potential because “they involve direct or cooperative social and ecological relations” (Manno 2002, 74).

TABLE VI. Commodity potential of basic needs

	<i>High commodity potential</i>	<i>Medium commodity potential</i>	<i>Low commodity potential</i>
<i>Mental health</i>	Mood-altering drugs	Therapists, fitness clubs	Peer counseling and mutual help, friendship, exercise
<i>Finance/ Banking</i>	Options, junk bonds, credit cards	Neighborhood banking, credit unions	Personal loans, gifts
<i>Energy</i>	Grid-dispersed electricity, power-plant equipment, fossil and nuclear fuels	Renewable energy sources, energy conservation services, wage labor	Personal energy conservation strategies, passive solar design, cooperative sharing.
<i>Transport</i>	Personal vehicles and the road infrastructure to support it	Public transportation	Transportation reduction strategies such as cluster housing near workplaces, walking
<i>Food production</i>	Commercial fertilizers, pesticides, engineered seeds, mechanization tools, genetic material	Commercial manure, stored seeds, farm animals, tools for small farm, ag extension, and research services	Knowledge of soil, locally co-evolved skills and techniques

(Parts of table by Manno 2002, 74-75)

Technoscientific development and commoditization tend to feed off each other.

Replacing a horse-driven system of personal transportation with the automobile was

heavily dependent on a series of technological innovations, such as the internal-

combustion engine and mass production. By the same token, the relatively high costs of technological development eventually led to the consolidation of the American auto industry into an oligopoly by the late-1950s, when three firms controlled roughly 90 percent of the market. This is why commoditization tends to fuel (and feed off of) giantism, which may begin in the economic realm but spill into the political realm as industries seek governmental policies favorable to their commoditization agendas.³

The private sector is not the only catalyst of commoditization – so is government. This can be seen in the health care field, where over the last century many European nations switched from a pay-for-service model centered on independent private-sector physicians to government-coordinated national health insurance systems. The U.S. public sector has played a more limited role, but it has been a powerful force for commoditization through its coordination of societal resources to minimize or mitigate risks in such areas as unemployment, poverty, crime, illiteracy, pollution, and natural disasters. However valuable any of the resulting governmental goods and services, they have had the effect of increasing the commodity potential of many basic needs through monetization, professionalization, and bureaucratization.

A change in the commoditization level of a basic need can result in new roles for government and the professions that help run it. For example, I would argue that the rise of the automobile has been the biggest driver behind the growth of the land-use planning profession. These new roles may be significantly determined by elected officials and court rulings, but they can also be influenced by the normative commitments of professions and even individual public servants.

Commoditization, globalization, and science

A commoditization initiative may result in significant benefits to society. However, the larger and more complex the commoditization initiative, the bigger its potential hazard footprint. Anti-depressant drugs may cost less than therapy, but research suggests that these drugs can have dangerous unintended side effects (Motluk 2004). For present purposes it does not matter what scientific consensus ultimately emerges on the cost-effectiveness of anti-depressants. The key issue is that the potential for harm can be much greater for a class of drugs sold around the world than for a poorly trained therapist who sees a few hundred clients per year in Boise, Idaho.

Globalization – commoditization taken to its planetary extreme – can fuel overconsumption partly because it results in spatial and social distancing between the producer and the consumer (Conca 2001). The greater the distance, the greater the potential for organized irresponsibility. For example, the footwear industry has become so globally integrated that it can be difficult to find out where and how a shoe was manufactured – let alone for an individual government or activist group to gain leverage in changing a firm’s behavior (Ryan and Durning 1997). This is partly due to complex commodity chains that may include multiple entities involved in raw-material extraction, component manufacture, assembly, advertising, and distribution (Conca 2001).

Distancing also increases the potential for asymmetrical bargaining, which can result in a corporation externalizing costs onto economically or politically weaker producers, particularly in developing nations. In addition, distancing can increase the difficulties of developing “rules and technologies with universal applicability and effectiveness, or even to know whether those rules and technologies are having the

desired effects across diverse locales” (Conca 2001, 64). Global commoditization can thus result in governance gaps that are difficult to close because of a Tower of Babel syndrome among nations and even sub-sectors of individual industries.

The more invisible the potential hazard, the greater the power science may wield in the success or failure of a commoditization initiative. Indeed, science itself is a form of commoditization that can shift normative power relationships in all five problems of political philosophy. For example, the criteria for action can change from an emphasis on values to whether there is an empirical basis for a policy response; capital-intensive research can result in a centralization of economic and political power; and the politics-technoscience dichotomy can transform visions of the Good Life. The promise of scientific innovation can result in the assumption that more commoditization is the best solution to hazards created by commoditization. This is a standard technocratic argument, e.g., auto safety advocates proposed air bags in the 1970s as a response to the low usage of seat belts rather than laws requiring people to buckle up (Yates 1983).

Commoditization and cultural lags: Too much, too fast?

Manno (2002) insists that commoditization invariably results in greater environmental destruction. That strikes me as an overly deterministic story line rooted in green protectionism. I would suggest that the concepts of cultural lags and frontier ethics point to a more subtle both-and assessment.

Hazards created by commoditization during the late 19th and early 20th centuries offer a useful point of reference. Horrific worker-safety and public-health problems in the meat-packing industry, e.g., as documented by Upton Sinclair (1974/1946), did not

turn out to be endemic to that level of commoditization. It took the American polity decades to impose its values on an industry that had exploited the ethical frontiers of a new technology: the factory model applied to meat production. Today the key problem is not global commoditization per se, but rather the mismatch between it and systems of governance still focused on closing the ethical frontiers of first modernity's more localized commoditization hazards.

Viewing commoditization through the lens of cultural lags rather than through green protectionism (and its Jeffersonian rejection of giantism as a general principle) does not absolve technoscientific developers from taking responsibility for the hazards they create – it merely changes the focus of critique. Consider the rise of the automobile, which represents the commoditization of the American transportation system. The planning field's embrace of a "smart growth" policy agenda arguably represents the first time this profession – a sister field of public administration – has comprehensively responded to the problems created or exacerbated by an auto-dominated transportation system, e.g., the high infrastructure costs of suburban sprawl, dependence on Middle East oil, and a rise in greenhouse gas production.

Assume for the sake of discussion that smart growth is not a policy simulation or simulacra, and that it has the theoretical depth and real-world applicability to close above-listed governance gaps. Even in this optimistic scenario, there may still be a dangerously large cultural lag. Smart growth came on the scene a good half-century after suburbs became a prominent fixture on the American landscape, and 75 years after one of the planning profession's most important (if often unacknowledged) goals became the legitimization and normalization of automobile use. In addition, it could take a few more

decades before smart growth principles become embedded in the daily practices of most planners – and translate into meaningful on-the-ground changes in most communities.

Has the pace of social learning increased quickly enough to address the hazards created by an auto-dominated transportation system? If not, what might its cultural lag suggest about the need for better “brakes and a steering wheel” on the commoditization initiatives of a risk society, where hazards may manifest more quickly and have larger footprints? At what point might the added complexity created by commoditization outstrip a polity’s learning curve, with potentially irreversible consequences?

Normative political implications of commoditization

In both an industrial and a risk society, commoditization creates winners and losers because it reorders power relationships. The most obvious losers will tend to be economic actors, such as family farms or independent small businesses. However, their displacement by agribusiness and big-box stores such as Wal-Mart can translate into a variety of direct and indirect political, social, and environmental ramifications.

For example, the railroad political machines of the 19th Century were built upon the then-unprecedented economic power accumulated by the rail industry as it expanded across the continent – and played a key role in transforming the U.S. from a sleepy agrarian nation into one of the world’s great industrial powers. This transformation had important normative political implications, because it spurred the triumph of urbane Hamiltonian republicanism over Jefferson’s rural utopia of yeoman farmer-citizens. The U.S. in 1900 may have had a similar constitution as a century prior, but it possessed a radically different political economy because of commoditization.

Commoditization initiatives often result in resistance, or what Peter Senge refers to as “balancing processes” (1990, 88). Bigger commoditization initiatives may generate sharper balancing responses, such as by conservative, green, or red protectionist movements. Each movement tends to oppose only some types of commoditization. Green and red protectionists usually favor governmental commoditization but not corporate, and conservative protectionists the opposite. One might argue that Islamic fundamentalists seek the return of a pre-industrial form of religious commoditization.

A key difference between an industrial and a risk society is the speed with which commoditization proceeds and the scale of its potential impacts. These impacts could arguably be positive. The automobile industry’s commoditization of personal transportation in the developing world may give an aspiring consumer class unprecedented personal mobility, which Gregg Easterbrook (2003) argued would enhance political freedom in authoritarian nations such as China. He also implied that technoscientific advancements would allow the bulk of humanity to someday join the ranks of the consumer class. However, Easterbrook sidestepped how motorizing the developing world may undercut efforts to stop global warming. This arguably represents a quick techno-fix rooted in the politics-technoscience dichotomy.

Commoditization is one of this essay’s most important concepts, because it offers a deeper level of analysis about how technoscientific development can reorder power relationships in potentially revolutionary ways. Major commoditization initiatives touch on most, if not all, of Waldo’s problems of political philosophy, but the most significant problem will tend to be centralization. Generations of populists have implicitly raised variants of the following questions: Has the commoditization of American life resulted

in an economy that gives large institutions – whether private, public, or even nonprofit – too much power over the daily lives of citizens regarding basic needs as food, transportation, finance, health care, education, and entertainment? Can the legitimacy of democratic forms of governance survive in a heavily commoditized economy?

Responding to commoditization in a risk society

The above questions take on added importance in a risk society, because basic needs with the highest commodity potential will tend to have the greatest technoscientific development – and hazard footprints. As a case in point, an outbreak of bovine spongiform encephalopathy (BSE) in the U.S. could be more challenging to contain because of the beef industry’s vast and highly integrated production and distribution system, where cow parts could cross a multitude of state and national boundaries and end up in hundreds of products, ranging from bar soap to vaccines (Woodward 2004).

Factory beef production illustrates how an individual commoditization initiative can result in a hazard with surprisingly wide-ranging repercussions. However, even more important may be when multiple commoditization shifts converge to create a mega-hazard. Consider the rising incidence of overweight and obesity, which a national study found may have cost as much as \$78.5 billion in medical expenses in 1998 (Finkelstein, Fiebelkorn, and Wang, 2003). Factors that may fuel weight gain include:

- Suburban land-use patterns that encourage driving rather than walking or bicycle riding (Sturm and Cohen, 2004).
- Steadily increasing calorie intake (Centers for Disease Control 2004), e.g., because of the growth in “junk” and fast food (Schlosser 2002, 3).

- The popularity of “couch potato” activities such as watching television and playing computer games, which manifest in a majority of adults not engaging in adequate physical exercise outside of their jobs (Centers for Disease Control 2003), and a shift in the economy toward sedentary white-collar jobs.

Any one of these factors could result in significant cultural lags. For example, research by British nutrition professors Andrew Prentice and Susan Jebb (2003) found that fast food has played a major role in rising obesity rates because it represents a significant shift in human eating habits that has raced ahead of biological evolution.

Now consider the difficulties of addressing this last factor along with the others listed above. The potential for political paralysis escalates sharply. Then factor in the individualization process. This can leave a power void whereby closing the governance gaps on obesity falls significantly upon subpolitical actors such as corporations that market healthier foods. Will such ad hoc efforts be enough to reduce the incidence of obesity before it does serious damage to the American economy?

The sovereign consumer, hyperreality, and individualization

One could dismiss the entire obesity debate as yet another manifestation of collapse anxiety that is not supported by “good science” (e.g., Campos 2004). And even if the science were unassailable, neoliberal advocates might argue that the best way to respond to obesity is through the “magic of the marketplace,” noting the popularity of low-carbohydrate diets and private gyms. This philosophy is closely linked to a belief in the *sovereign consumer*. The basic argument, which originated in neoclassical economics, is that private enterprise is not in a position to engage in social engineering

through changes in consumption patterns – it can only respond to consumer wants and needs. “If the public really wanted cleaner production, more efficient use, and better management of natural resources, preferences would shift, and the marketplace would respond” (Princen, Maniates, and Conca 2001, 321). A belief in the sovereign consumer is a crucial factor in the perpetuation of organized irresponsibility because it provides political cover for corporations to play a powerful proactive role in catalyzing social change through commoditization, but without taking responsibility for its side effects.

The onward march of commoditization can be at least partially masked by hyperreality and individualization. Hyperreality is a major characteristic of postmodern society whereby story lines are increasingly divorced from on-the-ground experience (Fox and Miller 1995). A prosaic example of hyperreal marketing is the pre-packaged frozen meal sold as “homestyle cooking.” Whether in fact the entrée looks and tastes like mom’s cooking is immaterial. By purchasing the frozen food, the preparation of this basic need shifts from an individual’s kitchen to a far-flung corporation.

The individualization process can mask commoditization in two ways. First, a decline in the Fordist regime’s standardization of production and consumption has resulted in an explosion in the number of consumptive choices. This has been driven in part by electronic marketing technologies that allow even the largest of corporations to profitably target ever-smaller niche markets. Second, American environmental discourse tends to personalize ecological destruction by pointing fingers at individual business leaders or focusing on isolated actions such as riding a bike or planting a tree. “When responsibility for environmental problems is individualized, there is little room to ponder institutions, the nature and exercise of political power, or ways of collectively changing

the distribution of power and influence in society – to, in other words, ‘think institutionally’” (Maniates 2001, 33). A failure to do so can make it easier for corporations – or governments – to gain public applause for making symbolic gestures (e.g., substituting paper cups for polystyrene) instead of wide-ranging institutional changes needed to effectively solve an environmental problem (Hawken 1993), such as by raising fundamental questions about the commoditization level of a basic need.

American opponents of commoditization have developed updated twists on old institutions such as farmer’s markets, local barter systems, and restaurant marketing campaigns that trumpet the joys of “slow food.” In addition, technoscientific development sometimes holds out the prospect of decommoditization. In the future homeowners may have the option to produce their own power with small-scale generators that promise to be more than twice as efficient as centralized power plants. Energy costs and greenhouse gas production from households could fall if a large proportion of households took advantage of emerging technologies combined with deregulation policies that allow customers to sell back to the grid any excess power they generate (Hamer 2004). Jeremy Rifkin (2002) goes a step further and argues that replacing a fossil fuel-based economy with one powered by hydrogen offers an opportunity to use new technology to democratize globalization (Rifkin 2002, 216).

Decommodization initiatives have hardly stopped the global march of commoditization. This may be partly because of the commodization of the media. Indeed, commoditization tends to beget further commoditization, particularly as a result of changes wrought by a risk society. New hazards that are not adequately addressed by existing institutions are likely to spur the development of new forms of commoditization.

For example, the Kyoto Protocol is built significantly around the concept of “emissions trading,” where nations whose greenhouse gas production exceeds agreed-upon limits can buy credits from those countries that have not exceeded theirs. This could result in owners of forested lands being paid to protect and expand these habitats because they are deemed “carbon sinks.” Entire professions and industries could develop around emissions trading, e.g., “auditors” may be needed to determine how much carbon is being absorbed by a given habitat. These new institutional forms will change power relationships regarding the most basic of needs: a stable climate. The cleverness of these new institutional forms should not obscure their normative significance. What was once a gift of nature is becoming bureaucratized, professionalized, and monetarized on a global basis – and yet there are early indications that this form of commoditization may fall far short of stopping global warming (Gelbspan 2004).

CONCLUSION

On an empirical level, global warming can be primarily blamed on humanity’s over-reliance on fossil fuels. Perhaps some of my readers are uncomfortable moving beyond that still-debated assumption. Nevertheless, chapters III and IV built upon risk society theory by arguing that mega-hazards such as global warming represent governance gaps between the expanding hazard footprints of technoscientific development and the lingering normative commitments of industrial society, such as an adherence to a politics-technoscience dichotomy and the industrial ecology model.

This chapter adds another theoretical layer: In important respects, risk society hazards are byproducts of the shift to a political economy that privileges basic needs with

high commodity potential. This shift has been accompanied by dramatic increases in destructive natural-resource exploitation driven by overconsumption.

One could argue that the private sector has been the primary driver behind commoditization, but the rise of modern public administration has coincided with the commoditization of many of society's basic needs through monetization, professionalization, and bureaucratization. This will be discussed more fully in Chapter VII, but the point that needs to be emphasized now is that commoditization ties into all of Waldo's problems of political philosophy.

For example, can global warming be stopped without challenging the ideal of the Good Life as being symbolized by a global consumer class striving for ever-higher levels of materialism? Many of the analysts cited in this chapter say no. From this perspective, overconsumption is a revolutionary act that has the effect – regardless of intent – of colonizing future generations, less powerful consumptive classes, and the biosphere. In a sense it does not matter which came first: the desire by citizens to overconsume, or corporate efforts to encourage overconsumption. Whether or not one believes that the consumer is sovereign, a crucial normative question is how his rights should interact temporally and spatially with those of others.

This brings us to a central theme of this essay: The dynamics of a risk society highlight the consumptive aspects of citizenship. Chapter VI explores prospects of consumptive citizenship resulting in the paradigmatic institutional change needed to close governance gaps on a mega-hazard such as global warming.

CHAPTER VI

CONSUMPTIVE CITIZENSHIP & INSTITUTIONAL CHANGE

This chapter will explore whether altruistic individualism could plausibly triumph over Americans' consumptive practices. This question is important, because a major tenet of risk society theory is that consumption choices function as a form of citizenship that can have as great – if not greater – of an impact in closing governance gaps than more traditional political actions, such as voting or participating in policy debates.

This chapter begins by defining citizenship and grounding it in the consumptive dynamics of a risk society. Then the psychology of consumptive addiction is explored, with a particular emphasis on how it applies to global warming. Then the relationship between personal consumption practices, rule-altering behavior, and institutional outcomes are discussed.

CITIZENSHIP AND CONSUMPTIVE ADDICTIONS

Since Aristotle, *citizen* has designated who is considered a full participant in a polity and who is excluded, e.g., slaves, women, or foreign born (Stivers 1996, 263). This political manifestation of lococentrism can be problematic in a risk society, where a mega-hazard can spill across spatial and temporal boundaries. Drawing on ancient as

well as modern thinking, Camilla Stivers offers a definition of citizenship that partially de-emphasizes exclusion. “Active citizenship” has four attributes:

1. Direct citizen involvement in some aspect of a system of governance;
2. Citizen action is grounded in a concern for the “public interest”;
3. A learning process occurs that allows citizens to “judge wisely”;
4. Working together creates a *polis* – “a space or arena within which participants achieve common aims, handle conflicts, constitute and carry forward shared values, and in so doing lead a virtuous life” (Stivers 1990, 88).

This definition assumes a meaningful boundary between “public” and “private” space that can protect power imbalances, e.g., between genders (Stivers 1996, 267). A risk society reinforces these dynamics in subtle, and often invisible, ways.

The political significance of consumption to a risk society hazard is illustrated by the consumer response to an outbreak of BSE in British beef, which has been traced as far back as 1984 (Walters 2003, 19). As late as 1995 government officials insisted that victims of CJD were not connected to BSE-infected beef, despite a drumbeat of scientific evidence suggesting otherwise. The public literally did not buy the government’s story line, and in just one year the market value of British beef fell by 36 percent. Economic losses were accompanied by an erosion of public confidence in the government’s handling of the BSE crisis, and reforms were proposed regarding how science should be used as a policy-making tool (Zwanenberg and Millston 2002).

A consumptive plebiscite in the U.S regarding gas-guzzling SUVs turned out differently. Sales surpassed passenger cars despite environmentalist efforts to steer the public toward options that produce lower quantities of greenhouse gases – at least until

gasoline prices escalated. In light of the continuing political congestion regarding U.S. global warming policies, daily consumptive choices may be the most powerful way an individual can exercise his or her citizenship on this risk society hazard.

If Beck's story line is accurate, the individualization process may to some degree become the subpolitical tail that wags the dog regarding risk society hazards. Individual and small-group actions could spur large-scale change at the disciplinary, professional, institutional, and polity levels. The question is how much, how fast, and how long lasting do these subpolitical movements need to be in order to close governance gaps?

Michael Maniates (2002) argues that individual acts will not, in and of themselves, solve a pressing environmental problem rooted in systemic causes. He points to Langdon Winner's (1986) discussion of how the failure of so-called "appropriate technologies" (such as wind power) to gain widespread usage in the U.S. during the 1970s was partially the result of a strategy rooted in an ineffective, build-a-better-mousetrap theory of social change (heavily seasoned with altruistic individualism, I would add). Appropriate technologists attempted to fuel an ad hoc grassroots revolution that paid little attention to the institutionalized political and economic forces that would resist their efforts – with great success, as it turned out.

It might bear repeating that Beck (1999) does not reject the importance of institutional responses to environmental problems. He also views individualization ambivalently because it could increase social inequity and provide greater cover for organized irresponsibility. However, Beck appears to be more optimistic than Winner or Maniates that the eclipse of first modernity is providing new opportunities for paradigm

shifts catalyzed by subpolitical actors, and amplified by the creation of new institutional forms more relevant to the dynamics of a risk society.

The psychology of consumptive addictions

In 2002 the National Partnership for Religion and the Environment launched an advertising campaign that challenged the morality of then-popular big SUVs with ads that asked, “What Would Jesus Drive?” Tom Walsh, a columnist for the *Detroit Free Press*, offered a telling response. He described the ad’s question as a “silly” exercise by “self-righteous clerics” who should not moralize about automotive choices, because it could lead down a slippery slope toward “cockamamy” (*sic*) moralizing about what to wear, eat, and drink. “Don’t get me wrong. Fuel economy and alcohol use are legitimate subjects for public debate. But are they the paramount moral issues of our time?” (Walsh 2002). Walsh’s implied answer: You’ve got to be kidding.

It is unclear whether Walsh rejected out of hand the idea that global warming is a serious threat to humanity, or whether he thought it could be easily solved with a quick techno-fix (e.g., put fuel-cell engines into big SUVs). Either way, he appears to suffer from moral dilemma blindness, because he did not acknowledge any of the unprecedented normative political implications of global warming. This is in sync with the auto industry’s contention that government should minimize its regulatory reach on this issue. SUV popularity raised the question of whether consumers would accept policy proposals designed to meet the Kyoto Protocol, such as hiking the federal gasoline tax and significantly increasing fuel-economy standards for trucks.

So what does that suggest about the potency of altruistic individualism as a catalyst for rule-altering behavior? Beck argues that this phenomenon cannot be adequately understood without an interdisciplinary, both-and theoretical approach. Toward that end, I will link a number of perspectives from a discipline that deserves much more attention by public administrationists: psychology. A number of scholars will be highlighted whose work raises questions especially relevant to a risk society. Not so coincidentally, their story lines are marginal even to psychology's discursive core.

Theodore Roszak (2001) argues that it is crazy – in the fullest psychological sense of the word – for humanity to continue engaging in consumptive acts that contribute to potentially catastrophic environmental hazards. This builds upon Paul Shepard's (1982) contention that civilization suffers from “ecological madness.” Roszak acknowledges that *ecocide* is not a psychosis listed in standard psychology reference books. “Even those who dissent from Freudian orthodoxy remain narrowly focused on what Jung called ‘urban neurosis.’ They ignore the greater ecological realities that surround the psyche – as if the soul might be saved while the biosphere crumbles” (Roszak 2001, 19).

This critique of psychology dovetails with Beck's challenge to sociology, because it argues that ecological crises are rooted in obsolete modernist theory. Roszak does not explicitly use all of the following terms, but he indirectly argues that anthropocentrism, contempocentrism, lococentrism, rationalism, and giantism – the five core values of the industrial ecology model – are embedded in psychological theory and clinical practices.

Rozzak (2001) also acknowledges that his advocacy of “ecopsychology” is part of a rhetorical strategy to find more effective ways to protect the environment than through techno-rationalism. He insists that destructive consumptive behaviors are significantly

driven by psychological dysfunctions such as addiction, and thus need to be at least partially addressed through therapeutic models. This strategy has been picked up by a handful of others, albeit with somewhat different story lines. John De Graaf, David Wann, and Thomas Naylor coined the term “affluenza” to describe an obsession with materialistic acquisition that can result in work “overload, debt, anxiety and waste” instead of fulfillment (2001, 2). Anne Wilson Schaef (1987) argues that American society functions as an addictive system with all of the characteristics of the individual alcoholic or addict. Chellis Glendinning (1995) goes a step further and suggests that this addictive system is significantly reinforced by the structure of industrial society.

These story lines may be marginal to contemporary psychology’s discursive core, but they can be linked indirectly to Freud, who was reportedly so taken aback by the savagery of World War I that he wondered whether an entire society could be psychopathological: “May we not be justified in reaching the diagnosis that, under the influence of cultural urges, some civilizations or epochs of civilization – possibly the whole of mankind – have been ‘neurotic’?” (in Roszak 2001, 54). After the second world war, R. D. Laing helped spur the creation of the Radical Therapy movement, which looked upon psychological breakdowns as a means of escaping what he called society’s “collusive madness” that “we call sanity” (in Roszak 2001, 55). Roszak notes that Laing’s analysis drew from both Freud and existentialist-Marxist ideas.

Marx argued that consumption in a capitalist political economy can devolve into a “commodity fetish” (Tucker 1978/1971, 321) fueled by the alienation of workers from the means of production.¹ Walter Benjamin suggested that commodity fetishes could be spurred by a phantasmagoria: “a magic-lantern show of optical illusions, rapidly

changing size and blending into one another” (Buck-Morss 1989, 81). Benjamin used this term, which originated with Marx, to describe how anything could be transformed into a fetish-on-display. Paradoxically, the more unattainable the price, the greater a commodity’s symbolic value (Buck-Morss 1989, 81-82).

Commoditization has resulted in the creation of elaborate new types of post-industrial phantasmagorias. This can be seen most obviously in the mass media, where a multitude of technologies compete for the public’s attention. Even higher education has become a phantasmagoria, with its glittering arcade of degree choices that promise potential students a Good Life built upon lucrative and prestigious fetishes.

The concept of addiction may be a useful tool for cultivating greater reflexivity about the potential limits of purely rationalistic approaches to consumption reduction, particularly for larger social groups. Schaeff and Diane Fassel define addiction as “any substance or process that has taken over our lives and over which we are powerless” (1988, 57). A substance addiction is ingested into the body, e.g., caffeine, alcohol, or food. Process addictions are activities on which a person becomes dependent, such as work, money, religion, relationships, or patterns of thinking.

The point is that anything can be used addictively, whether it be a substance or a process. This is because the purpose or function of an addiction is to put a buffer between ourselves and our awareness or feelings. An addiction serves to numb us so that we are out of touch with what we know and what we feel. Moreover, we often get so taken up with the addiction – an addictive relationship, for example – that we have no energy left for or awareness of other aspects of our life. (Schaeff and Fassel 1988, 58)

Schaeff (1987) argues that American society exhibits the characteristics of the individual alcoholic or addict – it is an addictive system. One of the major qualities of an addictive system is a reality-distorting insularity that “turns back on itself in a convoluted way and

becomes more and more enmeshed in itself” (Schaefer 1987, 147). An addictive system is an impediment to reflexive action because it “presents very few options to the individual in terms of roles and behaviors, or even the thinking and perceptions a person can recognize and pursue” (Schaefer and Fassel 1988, 61). Addictive systems can be difficult to unmask because they may be embedded in the routine daily practices and ways of thinking of institutions, professions and scholarly disciplines, which in turn may reflect societal addictions so pervasive as to be invisible or assumed to be unchangeable.

Glendinning (1995) draws on the work of Terry Kellogg (1991) to suggest that addictive behavior is not a natural condition, but is a product of social structure. American society suffers from systemic addiction because of the trauma-inducing nature of industrialism, with its “troublesome dichotomies” (e.g., mind/body, secular/sacred, male/female) and disconnection from the natural world (Glendinning 1995, 53).

I would hypothesize that the presence of an addictive system plays a key role in the development and maintenance of maladaptations that retard social learning, such as overcompartmentalization, opportunism, or utopianism. I would further posit that technoscientific development can result in substance or process addictions – what Glendinning (1995) calls “techno-addiction.” Individuals or social groups can become excessively dependent on everything from pain-killing drugs to automobiles. Policy makers may be addicted to quick techno-fixes if they become dependent upon technical or scientific innovations to provide short-term relief from problems in order to avoid the normative debate needed to address their deeper, long-term drivers, e.g., challenging the politics-technoscientific dichotomy and the industrial ecology model.

The process of creating technoscientific innovations can also become an addiction. This may be particularly apparent among scientists and technologists, for whom the “rapture of discovery” can blind them to the moral dilemmas embedded in their work (Joy 2000, 243). This rapture can function as a process “high” as intoxicating in its own way as a drug fix, and can become a form of escapism for individuals as well professions and scholarly disciplines. This may help explain why the opening of an ethical frontier is dominated by utopian story lines, and why technoscientific innovators can reject with such certitude any moral dilemmas that dilute the purity of their vision.

Schaef and Fassel (1988) suggest that addictive systems are characterized by five interlocking characteristics: denial, confusion, self-centeredness, dishonesty, and perfectionism. These characteristics are driven by a constant search for another fix. In a risk society context, a short-term fix might include efforts by automakers to develop hydrogen-powered, fuel-cell engines. This quick techno-fix was arguably embraced in order to avoid a more fundamental challenge to a commoditization order: reducing societal dependence on automotive transportation.

An addictive system can distort the way a social group sees the future. For example, preactivist or inactivist visions of the future can have the effect of legitimizing and normalizing a hazard that may require interactivism to stop.

Institutional change and the consumptive addiction plastic triangle

Institutional behaviors such a denial, confusion, self-centeredness, dishonesty, and perfectionism can be symptoms of an adaptational breakdown regarding a risk society hazard. The presence of an addictive system can be a crucial, if often

unacknowledged, barrier to closing a governance gap – particularly if it involves overconsumption. At the societal level, consumptive addictions reinforce each other in the following three ways.

- Enthralling phantasmagorias maintain and expand consumptive behavior – and addiction – by cultivating societal acceptance of individual commoditization initiatives as well as the overarching story line that a highly commoditized political economy represents the pinnacle of social progress.
- Meanwhile, industry argues that the myth of the sovereign consumer absolves it from the responsibility of unilaterally attempting to reform dangerous societal consumptive behavior in the absence of government edicts.
- Yet political paralysis (e.g., inadequate governmental regulation) results from an industrial issues backlog as well as corporate lobbying that overpowers the rule-altering initiatives of subpolitical actors – partly by mobilizing the power of those with a vested interest in maintaining the consumptive addiction, such as labor unions, customers, and media dependent upon advertising dollars.

An example of this dynamic, which I call a *consumptive addiction plastic triangle*, is the boom in SUV sales from the 1990s through 2008. This boom was fueled by a dazzling phantasmagoria of new designs. Automakers argued that they were just responding to market signals and – until a spike in oil prices – would have shirked their fiduciary responsibility by championing fuel efficiency in the absence of government edicts. However, for years the industry successfully lobbied to derail efforts to significantly increase the gas mileage for SUVs through federal standards (Stoffer 2003). These corporate efforts were assisted by organized labor worried about losing jobs (Obach

2004, 71), happy customers such as participants in the industry-funded SUV Owners Association, and an auto enthusiast press that is well-versed in demonizing those who criticize the environmental dangers and safety of SUVs (e.g., Bradsher 2002; Easterbrook 2003, 92-94). For years the critics' protestations were significantly obscured by the flashing lights and pounding syncopation of an automotive phantasmagoria.

The consumptive addiction plastic triangle maintains organized irresponsibility by keeping open a hazard's ethical frontier. This is a carry-over from first modernity but has heightened normative implications in a risk society because major hazards are delimited in time and space. In addition, the accelerating number and complexity of individual commoditization initiatives – and the synergistic impact they may have in reconfiguring society's foundations – fuel the incidence of Red Queen syndrome, where it becomes increasingly difficult to change consumptive patterns before they result in harm.

The long-standing political paralysis regarding U.S. global warming policy illustrates the difficulty of breaking the consumptive addiction plastic triangle in a risk society. However, I describe this triangle as plastic to suggest the possibility that, unlike Max Weber's bureaucratic iron cage, it can be broken. A symptom that the plastic triangle is intact is when discursive boundaries are maintained so narrowly that they serve to legitimize and normalize a hazard. In this event, popular discourse is dominated by what may be heated battles over superficial quick techno-fixes. This can consign paradigm-challenging questions to the enclaves of knowledge elites.

For example, meta-debates about the merits of an auto-dominated transportation system have largely occurred in the political backwaters of academia, the planning profession, and environmental activist circles. Just as significantly, outside of

environmental studies those debates have had a technocratic coloring that downplays or ignores the fundamental question of whether the U.S. should adopt Durning's goal of downsizing its consumption patterns to the level of the global middle class. In a society of consumptive addicts, espousing such a radical idea could marginalize its advocate in most political, professional, and scholarly circles. Yet if consumption critics are correct, this step may be crucial to addressing the key hazards of a risk society.

Walsh's (2002) critique of the "What Would Jesus Drive?" ad may have been shared by most Americans because his story line dovetailed with the automobile industry's phantasmagoria, which promotes auto addiction, the myth of the sovereign consumer, and regulatory minimalism. Indeed, the existence of the ad campaign suggests desperation by global warming activists, who focused on changing individual consumptive behavior because they had so little policy success at the federal level.

An appeal to religious values suggests that activists recognized that their traditional rhetorical strategies, steeped in techno-rationalism, had failed. Yet Walsh may have been correct in essentially arguing that individualization has advanced to such a degree that consumptive choices trump religious values. His story line may be steeped in denial, confusion, self-centeredness and dishonesty about global warming, but he also illustrates the ease with which organized irresponsibility can be defended in a society dominated by a politics-technoscience dichotomy, the industrial ecology model, and the consumptive addiction plastic triangle.

CONSUMPTIVE CITIZENSHIP AND INSTITUTIONAL MALADAPTATION

If closing risk society governance gaps requires workers – particularly public-sector knowledge elites – to engage in rule-altering behavior, might their willingness and ability to do so depend to some degree upon their consumptive predilections? This section will explore that question by developing the concept of *consumptive citizenship*.

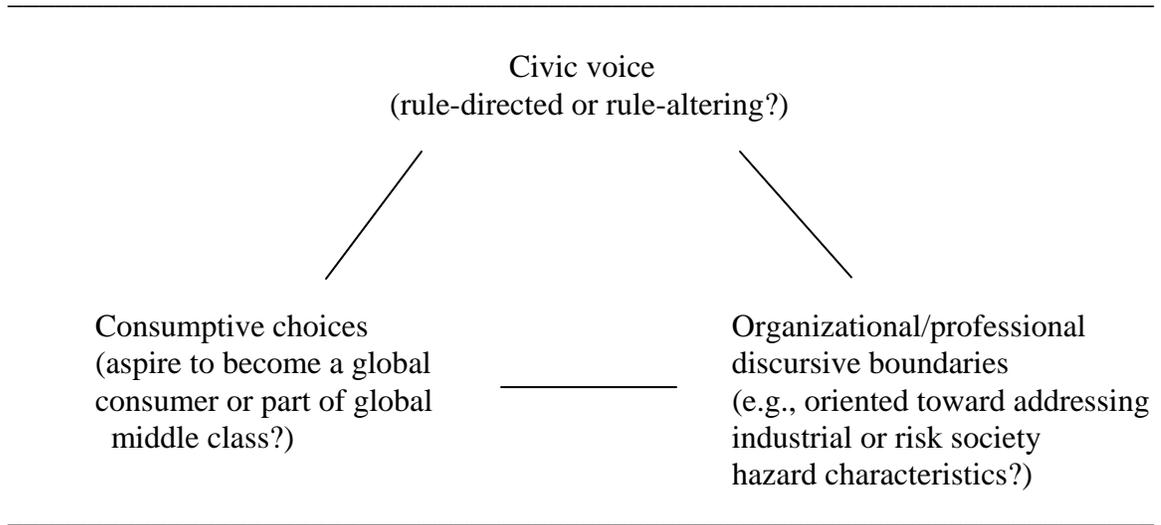
Consumptive citizenship refers to the relationship between a person's civic voice, the discursive boundaries of her profession, and her consumptive predilections. By *civic voice* I mean the totality of a political statement individuals make in their communication and actions regarding a given public issue. Every profession and organization has its own norms, replete with boundaries around what is acceptable to say and do. Those who challenge these boundaries may put their career trajectories – and thus their consumptive practices – at greater risk than those who do not.

This dynamic can be visually displayed as a *consumptive citizenship feedback loop*, where each element informs the other two (see Figure 1). A worker will experience internal conflict when any of the three elements of the feedback loop operates at cross-purposes to the others. These conflicts can be expected to become deeper, more chronic, and/or more widespread in the workforce due to the turmoil of a risk society.

For example, the desire of professionals to maintain or increase their consumption (particularly at ever-higher levels of overconsumption emblematic of the global consumer class) may lead them to hold back from rule-altering behavior needed to help close governance gaps between the characteristics of emerging hazards and the primary focus of their profession or scholarly discipline. This holding back – which is a form of discursive silence – can fuel institutional maladaptation. Yet maladaptation may not be

acknowledged from within the discursive core of the social group, particularly if its unmasking requires transcending deeply held paradigmatic commitments.

FIGURE 1. The consumptive citizenship feedback loop



Organizational maladaptation has long been the subject of study in the social sciences. In a 1940 literature survey, Robert K. Merton (1997) connected the concepts of trained incapacity (Veblen), occupational psychosis (Dewey) and professional deformation (Warnotte) to argue that bureaucratic structures are double-edged swords: The very elements that may make them successful at accomplishing a given set of tasks can limit their ability to adapt to new situations.

Thus, to adopt a barnyard illustration used in this connection by Burke, chickens may be readily conditioned to interpret the sound of a bell as a signal for food. The same bell may now be used to summon the trained chickens to their doom as they are assembled to suffer decapitation. In general, one adopts measures in keeping with one's past training and, under new conditions which are not recognized as significantly different, the very soundness of this training may lead to adoption of the wrong procedures. Again, in Burke's almost echolalic phrase, "people may be unfitted by being fit in an unfit fitness"; their training may become an incapacity. (Merton 1997, 101-102)

Michael Maccoby (1976) posits that all organizations have a psychostructure that selects and molds the character of employees. Douglas LaBier builds on Maccoby's work by arguing that these psychostructures can "stimulate, support, and make adaptive" mental disturbances in individual employees. These mental disturbances are, "in effect, 'required' for success and upward movement. Or, an organization may create conflict for normal people because of the values and attitudes required by the organization for career success" (LaBier 1989, 49). These conflicts may fuel escapist consumptive addictions that could make workers more dependent upon an ill-fitting but well-paying job, a phenomenon Juliet B. Schor (1992; 1998) describes as the "cycle of work and spend."

The job's symbolic and economic logics can result in commodity fetishes

Beck describes vocations and professions as "'brand-name products' on the labour market, as commodity-like licensed competence" (1997, 156). This suggests that the career, like consumptive practices in general, has both an economic and a symbolic logic (Benjamin 1993). The economic and symbolic logics of a career can blur together, because a person's sense of identity may be informed by what lifestyle image his job can purchase. Sociologists have long recognized that highly visible possessions can be used to announce at a distance one's status in the relatively anonymous and stratified environs of urban American culture (Simmel 1969). Thorstein Veblen (1994) suggested that this can be done through displays of conspicuous consumption, leisure, and waste. Michael Mayerfield Bell argues that Veblen's analysis helps explain the "treadmill of consumption" whereby "one tries to keep up with the Joneses, the Joneses are trying to keep up with the neighbor on the other side, and up the line to Liberace, the Rockefellers.

. . and Bill Gates” (2004, 47). This is a manifestation of what in 1925 Samuel Strauss called *consumptionism*, which represents a focus on producing and consuming at increasingly higher levels to the exclusion of other values (Ritzer 2005, 31).

Symbolic predilections – rooted at least partly in competition for social standing – can influence economic goals that determine, however unconsciously, a career-development strategy. By the same token, the job itself can be imbued with a powerful symbolic logic. All public management positions convey upon their incumbents overt or covert privileges, such as an office with a closing door, the ability to attend conferences in desirable locales, and heightened autonomy to exercise one’s judgment.

Joe Dominguez and Vicki Robin argue that “(o)ur jobs have replaced family, neighborhood, civic affairs, church and even mates as our primary allegiance, our primary source of love and site of self expression” (1992, 5). Whether or not one agrees that work life dominates the American psyche to such an extent, wrapping one’s identity in the role of a public administrator functions as a consumptive act. By the same token, a professional degree such as a Master of Public Administration (MPA) can also be seen as a commodity, but what is being purchased is not just a “license” to acquire a job with greater pay. Whether fully acknowledged or not by MPA students, they are also embracing a symbolic identity that can play a major role in defining where they are situated psychographically in American society.

This helps explain how one’s job can become a commodity fetish. Put in Freudian terms, people whose ego needs were not fully met during childhood may give excessive importance to their career as a source of identity (Diamond 1993). From Schaef and Fassel’s (1988) perspective, a person can become addicted to a job or career.

One way this plays out is that an over-identification with a job can increase the separation anxiety a worker might feel if he or she fears being fired – or even being ostracized – as a result of rule-altering behavior (Diamond 1993). Job addicts may not be likely champions of paradigm-shifting rhetoric and actions in the workplace because of their fear, however unconscious, of identity loss.

This is not to suggest that maladaptive rule-directed behavior is always rooted in addictive overconsumption. Research on whistleblowing illustrates the very real dangers of taking professional risks, as Guy Adams illustrates:

Those of us who have worked in public service ethics know the broad range of legislation that has been passed to “protect” whistleblowers. We have worked hard to make organizations “safe” for whistleblowers. It hasn’t worked – somewhere between half and two-thirds of whistleblowers lose their jobs. Typically, they never get them back, and many never work in their field again. They have serious financial setbacks, often losing their homes. They often lose their families. (Fred) Alford notes that whistleblowers have won only four of over 1,000 court cases to reach federal courts under the Whistleblower Protection Act of 1989. The paradigmatic whistleblower is a 55-year-old white male engineer who is delivering pizza to pay the rent in a second-story walk-up. (Adams 2000, 5)

The consumptive citizenship implications of whistleblowing are enormous.

Employment-compensation levels significantly maintain the American consumer class.

Achieving one’s salary goals is becoming an increasingly expensive and lengthy pilgrimage because, as professional jobs become more specialized, they require greater levels of educational credentialing and on-the-job grooming. If all that were not enough pressure, the loss of any job today – let alone an entire career – can be economically dangerous given the decline of the Fordist regime, a fraying social safety net, and the individualization of family life (e.g., the financial hazards of divorce).

‘Neutral competence’ colors consumptive citizenship for public servants

The above holds true with public servants just as much as those employed in the private or nonprofit sectors, although it may manifest somewhat differently. American public administration’s embrace of “neutral competence” as its central ideal has tended to nurture a professional culture of nondescript rule-directed technicians. David Farmer (1999) suggests that the field has tended to play the role of Jeeves, the task-oriented butler who does not bother with big normative questions because they reach beyond his humble station in life. In a public agency with a strong Jeeves-like culture, an intellectually curious rule-altering employee may be marginalized if she does not conform to dominant practices. Yet risk society governance gaps may have no hope of being closed unless public servants take the risk of transcending Jeeves-like behavior.

Factors such as globalization, individualization, and deregulation may be reducing the potential impact public agencies can have on risk society hazards such as global warming. However, the public sector still has a meaningful amount of power, both in terms of its regulatory reach as well as in modeling less destructive practices in its daily operations. The problem is that there are numerous impediments to, for example, enacting more environmentally friendly governmental purchasing policies, among them a “wait, we have more important things to do” mentality (OECD 2000, 77).

These impediments are not merely technical in nature, but are rooted in a continued adherence to obsolete normative assumptions. These assumptions go a long way toward defining the discursive boundaries of public agencies and professional associations regarding global warming. Challenging those boundaries in the workplace can be a difficult – and perhaps even professionally risky – act of consumptive

citizenship given competing demands for limited public resources resulting from an industrial issues backlog, which will tend to marginalize invisible hazards among external actors such as elected officials and major stakeholder groups.

Here economic and symbolic logics may overlap (see Table VII). For example, a facilities manager may invoke an economic logic to avoid integrating solar design into a new building, e.g., its up-front costs may be higher than traditional natural-gas heating. Meanwhile, he may champion an all-glass wall design that symbolizes fealty to the private sector’s latest architectural fads, but is also weak in conserving energy – and thus may cost more in the long run. Twenty years from now these actions may be considered a tragic waste of public resources that exacerbated global warming, but in the short run they may be considered legitimate and normal because they operate within the prevailing rules of a governmental entity and the discursive boundaries of a profession.

TABLE VII. Linkage between personal and professional consumptive practices

	<i>Economic logic</i>	<i>Symbolic logic</i>
<i>Personal consumption practices</i>	Lifestyle costs can limit job mobility, increase fear of engaging in rule-altering behavior	Identity can become too dependent upon the <i>image</i> of the job and its social status and privileges
<i>Professional consumption practices</i>	Organizational budget constraints (e.g., lack of money for solar technology)	Maintaining “professional” organizational image (e.g., privilege traditional, high-energy building designs)

Commoditization side shifts and simulations

The economic and symbolic logics of professionalism will tend to fuel further commoditization. As conservatives have long complained, government programs beget more government programs. However, the same is true in the corporate and nonprofit sectors. Economic globalization may be a significant driver of commoditization, but so is the delimited nature of major risk society hazards. As discussed in the previous chapter, global warming may result in the development of new professions and institutions, each of which may insist that they provide essential new forms of expertise.

Attacks against commoditization do not usually reverse it, but instead shift it to another part of a political economy. A governmental downsizing initiative may amount to a *commoditization side shift* to the private or nonprofit sectors that benefits recipient social groups more than society. A hallmark of a risk society is the prevalence of commoditization side shifts so complex that only a cadre of knowledge elites may understand their full implications.

New professions and institutions spawned in response to a hazard always hold out the potential of creating simulations that protect their role by legitimizing and normalizing the hazard rather than quickly eliminating it. For example, Hermann Scheer (2004, xi) argues that the international climate-change profession has had a tendency to talk about the problem in mediagenic conferences rather than leading the charge on politically difficult, but desperately needed, structural changes in energy production and use. By the same token, Ross Gelbspan (2004, 129-130) criticizes the U.S. environmental movement for a piecemeal and incrementalist “inside the beltway” approach that primarily protects the niches of individual groups.

Michael Shellenberger and Ted Nordhaus go a step further in arguing that U.S. environmental organizations have “strikingly little to show” for hundreds of millions of dollars spent on global warming initiatives during the last 15 years. In interviewing environmentalist leaders, the authors say they found group think that has narrowly defined global warming as an environmental problem solvable through technocratic means. Shellenberger and Nordhaus quote Susan Clark, Executive Director of the Columbia Foundation, to explain why this strategy has backfired.

“When we use the term ‘environment’ it makes it seem as if the problem is ‘out there.’” Clark argues this is not the case: “The problem is not external to us, it’s a human problem having to do with how we organize society” (in Shellenberger and Nordhaus 2004, 12). This conceptual problem has translated into political failure, conclude Shellenberger and Nordhaus:

Because we define environmental problems so narrowly, environmental leaders come up with equally narrow solutions. In the face of perhaps the greatest calamity in modern history, environmental leaders are sanguine that selling technical solutions like florescent light bulbs, more efficient appliances, and hybrid cars will be sufficient to muster the necessary political strength to overcome the alliance of neoconservative ideologues and industry interests in Washington, D. C. (Shellenberger and Nordhaus 2004, 9-10)

This preactivist behavior by environmental groups has failed to break the consumptive addiction plastic triangle regarding global warming. The result: In the last decade, no major federal global warming legislation has passed in the U.S. while

Britain has agreed to cut carbon emissions by 60 percent over fifty years, Holland by 80 percent over forty years, and Germany by 50 percent over fifty years. Russia has ratified the Kyoto Protocol on climate change, and even China – which is viewed fearfully for the amount of dirty coal it intends to burn — recently established fuel-economy standards for its cars and trucks that are much tougher than those in the U.S. (Shellenberger and Nordhaus 2005, 12)

These criticisms of nascent global warming professions should not be surprising given two dynamics of a risk society. Enormous political resistance to closing an ethical frontier may result in strategies of compromise by professional Cassandras that can be criticized as “selling out” given the size of a governance gap. In addition, even those groups in the vanguard of change will, to some degree, struggle along with everyone else in adapting to the new characteristics of a risk society. These struggles will be informed by the consumptive predilections of the actors, e.g., the financial and political fragility of the U.S. environmental movement may have translated into more risk-averse behavior.

Consumptive citizenship as applied to public administration scholarship

Public administration scholars may be just as susceptible as any other social group to consumptive predilections that discourage them from addressing risk society hazards. In a profession significantly built around publishing in peer-reviewed venues, ideas can become commodities (King 1998; Fellman 1995). “Scholarship in an advanced capitalistic (or consumeristic) market has become about careerism; scholarship is not about making meaning or facilitating understanding,” argues Cheryl Simrell King (1998, 165). This can result in a dysfunctional level of professional narcissism.

The key to success in such a system is to copyright a story line that is new enough to stand out in a discipline’s intellectual phantasmagoria without being so paradigm challenging that it is ignored or hotly decried by a discipline’s discursive core. This delicate balancing act can be more difficult at the dawn of a revolutionary era, which is fraught with deep and volatile structural traps. In such an environment, theoretical arguments can have significant ramifications, both for the career trajectory of an

individual scholar as well as the discursive dominance of competing schools of thought within a field (as well as among allied fields).

This dynamic can cultivate a commodity fetish for overly compartmentalized analysis, intellectual forms of cooptation, or flights into abstraction in the form of faux-revolutionary story lines. The latter maladaptation may be the most insidious because it can result in interactivist simulations or simulacra ultimately grounded in preactivism or even inactivism. A knowledge production system colored by pretense and insularity may be reasonably adaptive as long as society operates at arithmetic speed. But what about when the pace of change becomes exponential?

Given the paradigm-rattling dissonance that risk society hazards can generate, it would make sense that even accomplished scholars might succumb to intellectual fetishes rooted in denial. David Orr argues that more intellectually subtle forms of denial

take the form of excuses that we do not have the time or expertise to worry about issues beyond our specialization, especially those that make us uncomfortable in polite circumstances. Some even say that humankind has always triumphed in the past and ergo will do so in the future. Beneath all forms of denial is the hope that someone else will figure it out or that technology will save humankind in the nick of time. (Orr 1998, 2)

This denial is at least partially rooted in consumptive predilections. If challengers of orthodoxy are most likely those professors who are younger and newer to a field, they are most vulnerable until they gain tenure. Why put at risk one's consumptive dream of lifetime employment and summers off – rare luxuries among the working class – by explicitly and robustly challenging some of the biggest normative sacred cows of one's discipline?² The result: Scholarly careerism can result in intellectual fetishes that, in a knowledge-based political economy, help extend cultural lags on risk society hazards.

The individualization process pushes these dynamics to the extreme. Most typically, the collapse of first modernity's standardized biographies can result in wide-ranging questions about one's identity that are all too easily escaped from by the embrace of various consumptive addictions on and off the job. This can lead to cases of normative denial that may be defended with an exceptional degree of fervor.

On the other side of that coin, the relative invisibility of risk society hazards tends to create enclaves of knowledge elites who can get caught in any number of structural traps. Consider the difficulties of confronting anthropocentrism:

One of the penalties of an ecological education is that one lives alone in a world of wounds. Much of the damage inflicted on the land is quite invisible to laymen. An ecologist must either harden his shell and make believe that the consequences of science are none of his business, or he must be the doctor who sees the mark of death in a community that believes itself to be well and does not want to be told otherwise. (Leopold 1966, 197)

This dynamic can boil down to a haunting question: whether to take on the public identity of a Cassandra or adopt a psychologically self-destructive form of silence. When a hazard appears to be delimited in time and space, apocalyptic ideations may result.

Cassandras can appear unyielding because to "split the difference" can mean giving up on closing a governance gap of cataclysmic proportions. For example, if a researcher is convinced that a 60 percent reduction in greenhouse gases by 2050 is needed to avoid melting the polar ice caps, then he may consider it ecocidal to compromise at 20 percent if that still results in dangerous sea-level increases. The logics of political science and economics may not always match up with that of ecology.³

CONCLUSION

The choice of a public administration practitioner or scholarly career is a consumptive act where the “public” and “private” are inextricably linked. A professional’s civic voice, e.g., whether she engages in rule-directed or rule-altering behavior, is informed by her consumptive predilections as well as her profession’s discursive boundaries. Each of these factors includes an economic and a symbolic logic. These logics may be rooted in addictive systems that could impede the closing of a governance gap. Engaging in rule-altering behavior can thus be personally risky, particularly given the proliferating insecurities of individualization.

Let’s assume for the sake of discussion that American society is pathologically ecocidal. To what degree might altruistic individualism be part of the solution in responding to a mega-hazard such as global warming? The analysis in this chapter leads me to be less optimistic than Beck on the plausibility of radically reflexive rule-altering behavior, particularly among public-sector employees. This is for a handful of reasons.

The economic and symbolic logics of consumptive citizenship would seem to work against the scale of rule-altering behavior needed to expediently close governance gaps. If whistleblowers did not fare well in industrial society, might their prospects be worse in a risk society, where the simultaneous decline of the Fordist regime, the social safety net, and standardized biographies put added pressure to avoid rule-altering behavior that could endanger their economic standing and symbolic identity?

This added pressure appears to coincide with the following risk society dynamics:

- The acceleration of techno-scientific development may result in Red Queen syndrome, where more rapid institutional adaptation is needed than has been accomplished historically; yet . . .
- The relative invisibility of global warming could lead to delays in social groups' capacity to respond to it vis a vis more visible, tangible, and immediate industrial society hazards such as crime; and
- Deeply ingrained assumptions, such as the politics-technoscience dichotomy, may result in significantly larger governance gaps than may be typical of more normatively superficial industrial hazards, and thus could necessitate more fundamental – and difficult to achieve – changes in societal values.

Might the multiple insecurities of the individualization process, when confronted by the above dynamics, increase the incidence of future shock regarding global warming? If so, might this reinforce one or more elements of the consumptive addiction plastic triangle, such as a climate change policy paralysis enforced by the economic might of the auto and fossil fuel industries? And even if future shock were transcended, might rule-altering actors still face the daunting task of developing and implementing greenhouse gas-reduction measures in a global political economy where spatial and social distancing may make it exceptionally difficult to achieve meaningful outcomes? I suspect so.

On the positive side, I think Beck and Beck-Gernsheim (2001) are correct to argue that individualization does not necessarily translate into narcissism; it just means using a broader framework for assessing political participation – in my terms, consumptive citizenship. Beck and Beck-Gernsheim illustrate an overarching cultural

lag of a risk society by arguing that people “are better adapted to the future than are social institutions and their representatives” (Beck and Beck-Gernsheim 2001, 162).

However, I wonder if Beck and Beck-Gernsheim idolize the younger generation too much. They argue that youth are cultivating a new form of altruistic individualism that can be a potent, if ephemeral, form of subpolitical action. But the question remains whether deeply embedded institutional practices can be changed without a doggedly long-term institutional focus. Or might the sheer speed, intensity, and unpredictability of risk society hazards eventually pummel institutional inertia like a hurricane, so “freedom’s children” do not have to (Beck and Beck-Gernsheim 2001, 156)?

CHAPTER VII

THE RISE OF A CONSUMPTIVE STATE

Chapters III through VI attempted to better link world risk society theory to American public administration. This chapter adds a few additional layers and synthesizes key themes. I contend that the rise of a risk society dovetails with the eclipse of an administrative state (Waldo 1984) by a consumptive state.¹

This chapter's discussion is divided into two sections. The first one describes the fall of an administrative state. Key elements of administrative state theory are described and connected to concepts introduced in previous chapters, e.g., the central role of commoditization in the development of American bureaucracy. The second section sketches a consumptive state. Dwight Waldo's problems of political philosophy are among the tools used to compare and contrast administrative and consumptive states.

THE FALL OF AN ADMINISTRATIVE STATE

Waldo (1984) defined an *administrative state* as a nation-based polity with a tension between its democratic pretensions and a large bureaucracy that plays a major role in addressing the problems of a technoscientifically advanced industrial economy. The American administrative state was born around the turn of the century, and reached

its zenith in the post-WWII period. Waldo (1984) argued that the development of a vast bureaucracy was not merely a manifestation of value-neutral management tools, but instead represented a new form of government with different normative underpinnings than envisioned by the nation's founders. In what is commonly called the orthodox period, which roughly spanned the first half of the 20th Century, champions of public administration tended to espouse a vision of a "Good Society" that was

strikingly like a World of Tomorrow futurama or Megapolis's fifty-year plan in scale model. Here at last man has become captain of his destiny and has builded (*sic*) a civilization commensurate with the needs and aspirations of the human frame. It is a civilization primarily industrial and urban. . . . It is, of course, a mechanical civilization, for it is the machine that has enabled man to lift himself above his environment and to extend the blessings of civilization to all the members of society for the first time in history. It is quite obviously a "planned" society; such magnificent zoning, for example, would require great imagination in conception and thorough effort and strict obedience in execution. About all we can tell about the form of government must follow from the obvious fact of the planning: it may be "democratic," but the range of government control is unquestionably large and the machinery of administration extensive. It is very probably a "collectivist" society so far as its use of *means* is concerned. (Waldo 1984, 68; original italics).

This statist vision of a planned society stood in contrast to Jefferson's dream of a decentralized participatory democracy. In Beckian terms, the administrative state was a major part of a comprehensive system of insurance – a provident society – designed to legitimize and normalize the hazards of urbanization and industrialization by minimizing and mitigating their side effects. The creation of programs such as Social Security can be seen as responses to the rise of a new political economy lacking the social safety net of economically supportive extended families, the low commoditization of rural lifestyles, and the possibility of building a new life in the Western frontier of yore. Frederick Jackson Turner (1894) argued that the frontier was closed in 1890, when the census

showed the complete settlement of the West. However, from a commoditization standpoint the more important date was 1932, when the New Deal began.

Commoditization and the consumptive addictive plastic triangle

One of the most striking characteristics of an administration state was its single-minded reliance upon commoditization as a means of closing the governance gaps and ethical frontiers of urbanization, industrialization, and consumptionism. The administrative state's growth may have been a reaction to the side effects of private-sector commoditization (e.g., the creation of mass markets served by big corporations), but government also fueled this trend. Modern public administration is the story of the bureaucratization, professionalization, and monetarization of many of society's basic needs. Bureaucratization largely resulted in a greater centralization of decision making. This power was legitimized through professionalization, which spurred a specialization of knowledge and labor. Professionalization required the monetarization of basic needs, which resulted in larger and more varied forms of direct and indirect taxation.

These dynamics helped create and perpetuate a public-sector version of the consumptive addiction plastic triangle. Proposals to build the administrative state were espoused with phantasmagorias that attempted to enthrall the electorate with appealing dreams of the Good Life. This included the rhetorical strategy of promising a bureaucracy powerful enough to improve life but consigned to playing a Jeeves-like role that did not threaten the traditional power balances of the constitutional order. The politics-administration dichotomy was premised upon a public-sector variant of the

sovereign consumer. In this story line, public agencies were merely responding to the will of the citizenry, as expressed through the legislative handiwork of elected officials.

The creation of a vast assortment of services and regulations redistributed wealth, status, and risk. For example, Social Security and Medicare elevated the affluence – and ultimately the political power – of seniors. Once created, a consumptive dependence – and perhaps even an addiction – to a commoditization initiative might be maintained by alliances among vested interests, e.g., public-sector labor unions, stakeholders receiving benefits, and political leaders who sought electoral support from them.²

Technological somnambulism at its peak

Waldo (1984) criticized public administration orthodoxy for what he saw as a blind embrace of a politics-administration dichotomy, which promised greater efficiency without sacrificing democratic values. However, Waldo's more important insight was that the field's ideal of a World of Tomorrow futurama was a gleaming technoscientific utopia. Integral to this vision of the Good Life was the assumption that technological progress virtually always equaled social progress. This belief in a politics-technoscience dichotomy was built upon the industrial ecology model's anthropocentrism, contempocentrism, lococentrism, rationalism, and giantism. Waldo noted that

if the Good Life is achieved man will have risen above his environment and made it subservient to his dreams. . . . Government and administration, properly conceived and scientifically developed, will make man Master of his Soul; they will realize what political philosophers have only dared dream. (1984, 69)

This utopian sentiment epitomizes the opening of an ethical frontier – and the elevation of the quick techno-fix to the status of panacea. Such giddy optimism is understandable

given that technoscience was transforming society in “sensational” ways and its side effects were not immediately apparent. Technological somnambulism was at its peak.

Waldo recognized more clearly than many of his contemporaries that technoscientific development raised unprecedented normative questions about the distribution of decision-making power in society. Hugh Miller (2007, xix) notes that a key question Waldo raised was, “How much democracy should a society yield to expertise?” For example, Waldo argued that a

new scientific elite is rising, one with a highly plausible claim to the exercise of political-administrative authority in the type of social-economic order that is developing. Whether our strategy should be to become “part” of it, or to balance and supplement, is to be determined; and the determination poses questions from the semantic to the moral. (Waldo 1965, 19)

These questions have heightened importance to environmental hazards. Because of the dominance of the politics-technoscience dichotomy and the industrial ecology model, environmental degradation did not become politically visible until the 1970s, and since then has received less attention than a backlog of perennial industrial problems. This has led to public policy paradoxes, e.g., the U.S. was, until recently, by far the world’s largest contributor to global warming even though it pioneered aggressive air-quality regulations. Global warming thus illustrates how the normative commitments of an administrative state have helped create a hazard that threatens its very existence.

Administrative state spurs hazards it is incapable of stopping

The administrative state’s emphasis on commoditization and technoscientific development helped spur an unprecedented burst of overconsumption. That opened the door to hazards an administrative state is structurally incapable of adequately addressing.

Here it is worth returning to the nine characteristics of industrial and risk society hazards. Public administration has been most successful in closing governance gaps on hazards that fit most or all nine industrial characteristics. For example, it has clearly been easier to respond to hazards localized in time and space, such as a one-time toxic spill in a river, than greenhouse gases. By the same token, government has tended to be more successful at addressing hazards that have a linear cause and effect (e.g., the spread of small pox) than those with complex causation (poverty among blacks). In addition, problems that directly impact humans and can be easily recognized by laypersons (e.g., crime and unemployment) have tended to draw more attention than those that primarily impact the biosphere and can only be detected by scientific specialists (the threatened extinction of obscure species). Hazards that could be predicted (an increase in industrial-accident claims) have been addressed more effectively than those that defy the logic of the actuarial table (exotic new cancers). Above all, government tackled more easily the problems that responded well to centralized methods of control (bank regulation) than culturally contingent, bottom-up approaches (drug-abuse prevention).

The success of an administrative state in reordering first modernity's power relationships has resulted in balancing processes. The "hollowing out" of the state (Peters 1996) in recent decades could be at least partially characterized as a reaction by business interests against regulatory regimes. These balancing processes have often been articulated as decommodification initiatives steeped in Jeffersonian values. Beck is rightly critical of this conservative protectionist story line because it can amount to a shell game. Dismantling the administrative state will not decommodify society if

commoditization in the private sector is allowed to accelerate; that could merely shift power in ways that could undercut democratic processes.

The decline of an administrative state may not be obvious to the layperson – or conservative protectionist – because its artifacts can still be seen everywhere.³ A consumptive state's rise is not likely to reduce the number of artifacts that are produced or contracted out by public agencies. Indeed, the opposite may occur because the added complexity of a risk society is likely to spur additional public-sector commoditization initiatives (e.g., homeland security), even if they do not actually close a governance gap.

The administrative state's decline can be seen in its shrunken ability to perpetuate the consumptive addiction plastic triangle regarding public-sector commoditization initiatives. In recent decades the creation of new governmental programs has rarely been viewed as integral to the Good Life. Instead, decommoditization initiatives – proposals to downsize the public sector – have been popular even among many recent Democratic leaders at the federal, state and local levels. Meanwhile, reactivists, e.g., who seek to dismantle the New Deal, are no longer marginal to political discourse. This does not merely reflect a short-term swing in the political pendulum, but points to a long-term trend toward the individualization of the American political economy.

Administrative state torn between reactivism and interactivism

Numerous political, economic, and cultural factors have fueled attacks against the administration state. However, this phenomenon is significantly rooted in accelerating technoscientific development. Even a homogenous polity could take decades to develop stable agreements about how to respond to hazards created by a single technoscientific

innovation, let alone a plethora of them, as was unleashed by industrialization. In addition, even modest governmental attempts to close an innovation's ethical frontier will likely result in balancing processes by vested interests intent on keeping the frontier open.

The flip side to this argument is the administrative state was itself a technological innovation that opened up a host of problematic ethical frontiers. It took the election of Ronald Reagan – roughly 80 years after the birth of the American administrative state – to begin closing some of them, e.g., by dismantling or coopting “onerous” regulatory processes. One need not embrace the Reagan administration's decommo-ditization agenda to acknowledge that public administration left itself vulnerable to attack by creating narcissistic professional practices. However, even if the field had adopted more inclusive approaches, it is difficult to imagine how knowledge gaps – and thus structural traps – between public administration and the rest of the polity would not have proliferated as the pace of technoscientific change accelerated.

The above analysis points to a major reason why public administration became the “identified patient” of American democracy's dysfunctions (McSwite 1997, 10). Bureaucracy has been a prime tool for closing governance gaps resulting from technoscientific development, e.g., land-use planning developed in response to urban sprawl spurred by the automobile. If one brings to the theoretical foreground the normative components of seemingly mundane administrative functions, public servants have often resided in the no-man's land between competing societal value systems. Bureaucratic tools such as zoning and comprehensive planning have thrown public servants into the middle of normative debates, such as between the primacy of private

property rights versus the collective benefits of moderating sprawl-induced infrastructure costs. It is inevitable that the field would become a political lightning rod, despite strenuous attempts to present itself as Jeeves.

The recent predicament of the American administrative state can be metaphorically described as a person whose arms are being used in a game of tug-of-war. One arm is being pulled by reactivist forces (e.g., the regulatory takings movement). The other arm is simultaneously being pulled in the opposite direction by interactivist Cassandras (e.g., advocates of aggressive efforts to stop global warming). Of course, this tug-of-war metaphor is overly simplified. Reactivist and interactivist forces play off each other, because the dissonance that results from accelerating technoscientific change can lead to future shock-induced spasms of reactivism which increase pressure for interactivist change to catch up with expanding governance gaps. Time speeds up, visibility shrinks, polarization intensifies, and the normative stakes escalate. Put on your seat belts because we are entering a consumptive state.

CHARACTERISTICS OF A CONSUMPTIVE STATE

A *consumptive state*⁴ is a diffuse global system of governance that functions primarily as a facilitator of individualization – which often masks global commoditization initiatives that prioritize corporate interests (e.g., Korten 2001b; Bollier 2002). A consumptive state is built upon corporatist and technocratic approaches to governance that tend to cultivate addictive consumptionism.

Woodrow Wilson's description of 19th Century America could also be applied to a consumptive state: "Like a lusty child, government with us has expanded in nature and

grown great in stature, but has also become awkward in movement. The vigor and increase of its life has been altogether out of proportion to its skill in living” (1887, 203).

A consumptive state reflects an incomplete transition from first to second modernity. It is marked by a proliferation of governance gaps. The hazard footprints of overconsumption grow so large that they function as a revolutionary political force that redistributes risk across generations, nations, and species. However, these governance gaps are often masked by invisible technoscientific development that drives them.

A consumptive state is thus an ethical frontier writ large. A key variable is how citizens exercise their political power, which primarily consists of consumptive choices. Although these actions have had more political importance during first modernity than the social sciences acknowledged, their power is heightened in second modernity.

One could invoke Daniel Boorstin’s pendulum metaphor to describe the fall of an administrative state and the rise of a consumptive state. However, the technoscientific side of Boorstin’s theory should be emphasized: Political dominance may swing from left to right, but technological change moves inexorably upward (in the absence of societal collapse). If one gives credence to risk society Cassandras, avoiding catastrophic outcomes from accelerating technoscientific change may require much more rapid, complex, and widespread social learning than was needed in the 20th Century.

Rise of a consumptive state marked by continuities, discontinuities

First modernity saw the rise of transnational corporations and growth in international trade, but the American political economy was still significantly oriented around the nation state. Command-and-control regulation may have begun to lose favor

after World War II, but the legitimacy of governing institutions went largely unquestioned until the late 1960s. There was a virtual consensus regarding what constituted the Good Life, e.g., ever-higher levels of consumption and largely unbridled technoscientific advancements through a Fordist regime. The same could be said of the stability of social roles, where what Beck (1997) calls the classical image of industrial society did not show serious signs of fragmentation until the Vietnam era.

Second modernity corresponds with the emergence of a glocal electronic political economy; market-oriented governance schemes; the simultaneous decline of a wage-based economy and a welfare state; a cultural fragmentation that undercuts sovereign will formation; and system-threatening hazards that cause fundamental shifts in the concept, place, and media of politics. A risk society's ability to avoid potentially catastrophic dangers depends upon the degree to which the state transcends its tendency to legitimize and normalize risks that do not fit into the zombie categories of first modernity.

The shift to a consumptive state has been gradual, and marked by discontinuities (Drucker 1969) as well as continuities. An example of this dynamic is *McDonaldization*, which has been one of the most popular forms of commoditization in recent decades. George Ritzer (2004) defines McDonaldization as a highly rationalized system for the delivery of a good or service that emphasizes efficiency, calculability, predictability, and control through nonhuman technology. I would describe McDonaldization as a second wave of industrialization, because it essentially applies Taylorist principles to non-industrial sectors of the economy, such as to restaurants, hospitals, higher education, and even churches. Yet McDonaldization is also an indicator of a consumptive state because

it is an important purveyor of a global monoculture that fuels overconsumption. This opens the door to hazards that can increase the insecurity and instability of globalization.

Dominant philosophical characteristics of a consumptive state

A consumptive state, while having some philosophical similarities to an administrative state, represents a revolutionary change in the American constitutional order. Table VIII summarizes how a consumptive state both carries over from an administrative state some of the same responses to Waldo’s problems of political philosophy but also takes some key paradigmatic turns.

TABLE VIII. Philosophical characteristics of administrative and consumptive states

<i>Five problems of political philosophy</i>	<i>Administrative state</i>	<i>Consumptive state</i>
<i>Nature of the Good Life</i>	Provident society; maximize security through national commoditization	Individualization of risk; maximize consumption through global commoditization
<i>Who should rule</i>	Statist knowledge elite; industrial ecology model	Corporatist knowledge elite; industrial ecology model
<i>Criteria for action</i>	Utopic forms of rationalism, scientism	Ambivalent rationalism, scientism
<i>Separation of powers</i>	Politics-administration dichotomy, politics-technoscience dichotomy	Politics-technoscience dichotomy, professional neotribalism, institutional implosions
<i>Centralization versus decentralization</i>	Focus on nation state; weakened local political economy	Global/local bifurcation; weakened nation state

Nature of the Good Life. As with an administrative state, the most important priority of a consumptive state is its emphasis on consumptionism. But whereas the focus of an administrative state was the development of a provident society, a consumptive state privileges ever-greater and faster-obsolescing forms of addictive consumption grounded in individualization. A neoliberal utopia is the dominant (if not fully realized) vision of the Good Life, where government is scaled back so utility maximizers can write their own customized, “I can have it all!” biographies.

The dark underside of that is fear generated by Red Queen syndrome, where accelerating social change can leave individuals and social groups feeling like they have to run faster just to maintain their position in the socio-economic order. One way this plays out is intense pressure to cultivate “economic competitiveness” in a globalized economy by heavily subsidizing economic interests while at least partially dismantling the administrative state’s taxing mechanisms, regulatory regimes, and social safety net.

To the degree this neoliberal ideal is implemented, it exacerbates risks and insecurities that threaten the system’s stability. As instability becomes more visible, concerns mount about whether the state still adequately upholds one of its key functions in an industrial economy: to predict, control, and either prevent or mitigate risk. In other words, private consumptive behavior develops such large hazard footprints that it raises questions as to whether public-private normative boundaries need to be redrawn. This debate occurs within the confines of individualization, where command-and-control and communitarian models may no longer be as effective in influencing consumptive behavior – and may be politically impossible to implement anyway.

The individualization of public resources is not necessarily bad. As a case in point, home-based power generators have the potential to achieve important policy goals, such as combating global warming and democratizing electricity production. Some environmental leaders have called for a fundamental shift in strategy: to stop viewing government as the primary tool for achieving their goals (e.g., Dowie 1997; Mieszkowski 2005). These examples illustrate the obsolescence of either-or story lines such as “big-government liberals” versus “free-market conservatives.”

Individualization in its neoliberal guise is built upon the myth of the sovereign consumer. If a dominant underlying metaphor of an administrative state was “better living through bureaucrats,” a consumptive state draws inspiration from an updated vision of the cowboy sitting on his horse and gazing out across a vast landscape. Just replace the cowboy and horse with a consumer in a big SUV who stops to ponder the shopping opportunities at a mega-mall. The underlying ethos is, “Buy now, pay later.” This can be seen in a dramatic increase in public, corporate, and consumer debt (R. D. Manning 2000), but is also reflected in overconsumption that redistributes the costs of environmental destruction onto others. Alas, unlike a moderate level of credit card debt, global warming amounts to a loan so large it can never be paid off.

Who should rule? As with the administrative state, the normative underpinnings of a consumptive state are largely rooted in the industrial ecology model. However, in a consumptive state, meta-hazards begin to make visible the gap between traditional assumptions of who should rule and the need for new institutional forms that protect the rights of less powerful nations, future generations, and the biosphere. This unmasking

process primarily occurs among knowledge elites isolated from popular discourse, in part because individualization accelerates first modernity's division of knowledge and labor into a veritable Tower of Babel of specialists.

A major aspect of a shift from a statist to a corporate knowledge elite is that a dominant political debate revolves around the degree government should be "reformed" to operate at the much faster speed of commerce. This is because, as the pace of technoscientific development accelerates, corporations feel increased pressure to bring their innovations more quickly to market. However, when regulatory processes are pressed to respond too quickly, that can make it more difficult to protect the public and the biosphere from harm. The rapidness of innovation development thus serves to perpetuate organized irresponsibility.⁵

As commoditization initiatives spread overconsumption throughout the world, increasing pressure is placed on already stressed ecosystems, as well as uneasy power balances between richer and poorer nations. "Why can't we live like you?" becomes the focus of debates. Should the global middle class be allowed to enter the ranks of the consumer class, thereby creating a veritable "McWorld" of global cultural homogenization (Barber 1995) that results in dangerous levels of overconsumption?

It may be useful to note at this juncture that Alan Thein Durning's (1992) consumption typology (see Chapter V) filters out an important distinction: The U.S. represents the upper end of the global consumer class. America is where hyperconsumption (R. Williams 1982) has reached its peak, both in comparison to other nations and historically (Ritzer 2005, 32). This is not just a function of quantity, e.g., Americans consume nearly twice as much as they did in the 1950s (Schor 1991, 109). It

also reflects the triumph of consumption over “both religion and politics as the path millions of Americans follow to find purpose, meaning, order and transcendent exaltation in their lives” (Witt 2003, W14). A consumptive state thus refers both to a system of governance that facilitates overconsumption and reflects its dominant state of mind.

Criteria for action. The invisibility of many risk society hazards results in polarized, abstract debates dominated by dueling calculators, where a perennial charge is that the other side is engaging in “junk science.” Entire professions or subgroups within them may rally around a given story line. Interpretations of data can mask assumptions grounded in professional normative predilections, e.g., assessing policy options for global warming via theories grounded primarily in economics versus political science, engineering, or various natural sciences.

These debates can have consumptive dimensions, because their outcomes could determine which individuals and professional groups will generate more wealth and power in a polity’s response to a hazard (which could translate into better-paying jobs, research grants, news media visibility, etc.).⁷ Laypersons must make sense of technoscientific debates for which they may have minimal background, e.g., whether a Cassandra has unmasked an authentic threat or has succumbed to collapse anxiety, perhaps for professional benefit. This can be doubly difficult to judge if the proposed hazard is rooted in addictive consumptive behavior, where one’s psychological inclination may be to embrace story lines steeped in denial and self interest.

As the pace of technoscientific development accelerates, moral dilemma blindness sprouts like dandelions in an unkempt lawn. This acceleration may also result

in more frequent outbreaks of the Red Queen syndrome, where spiraling levels of stress and alienation can lead to a proliferation of consumptive addictions (e.g., unsustainably high fossil fuel usage) that can be difficult to change, particularly when collective behavior modification is needed more quickly than has historically been successful.

The relative invisibility of risk society hazards further fuels a trend toward scientism that can be traced to the dawn of an administrative state. However, recent failures to protect society from technoscientific hazards have led to growing skepticism about science's monopoly on rationality. By the same token, the democratization and unpredictability of risk society hazards have raised the question of who is being most and least protected by a consumptive state's remaining insurance mechanisms, e.g., the producer or consumer?

Normative questions can reach such dizzying heights that adaptive disorders permeate policy responses to a hazard, and quick techno-fixes are embraced. Dangerous exercises in frontier ethics can receive little attention in professional and popular discourse, particularly if they most directly impact nature rather than humans. Only when a danger is seen as clear and present – which is most likely when it fits the characteristics of an industrial hazard – might public administrators find the political cover to aggressively question risk assessments of scientists or move ahead of elected officials in attempting to close a technoscientific ethical frontier. This is why rule-directed action that legitimizes and normalizes a hazard can be a more revolutionary force than military aggression. *The most significant political acts of the 21st Century may be a lack of response to hazards delimited in time and space.*

Separation of powers. The rise of a consumptive state begins to unmask separation-of-power dichotomies that had been accepted in an administrative state, such as a politics-technoscience dichotomy. When unprecedented hazards are generated by corporations, their relative autonomy to impose harm onto society without democratic oversight becomes highlighted. When scientism leads to delays in substantive responses to risk society hazards, that raises questions about the traditional separation between science determining risks and policymakers responding to – and legitimizing – them.

Accelerating technoscientific development creates larger and more frequent knowledge gaps even within a relatively interdisciplinary field such as public administration. This neotribalism can make it difficult for a field to “see” emerging hazards discovered by specialists.

This trend is moderated by *implosions*, which represent the “disintegration or disappearance of boundaries so that formerly differentiated entities collapse in on each other” (Ritzer 2005, 116). This includes the dissolving of distinct national cultures, the boundaries between public and private, and the way goods and services are provided.

An administrative state was patterned along the functionalist structures of industrialized commerce. Just as the typical town would have separate stores for food, clothing and automobiles, government grew into an alphabet soup of agencies with single functions. In contrast, a consumptive state is dominated by the principle of “one-stop shopping.” In the private sector that manifests in shopping malls which double as entertainment theme parks. By the same token, recent government-reform efforts have emphasized functional consolidation. Implosion pressures are an important dynamic in a consumptive state because they can result in major shifts in power between industries,

professions, and levels of government. These pressures have played a significant role in the morphing of nation-based government into diffuse systems of glocal governance.

Centralization versus decentralization. Whereas first modernity was dominated by nation states, their power is eclipsed in second modernity by global markets, multinational conglomerates, and corporatist bodies such as the World Trade Organization (WTO) – which tend to enforce the consumptive addiction plastic triangle.

Global warming poses vexing questions of governance scale, because the production of greenhouse gases is embedded into the routine practices of virtually all societies. Is this hazard an argument for stronger international political institutions, or might a “lilliputian” strategy of grassroots reform be a more effective response? Or both? Where and when? These are particularly difficult questions to answer given the complexities of distancing in the perpetuation of a hazard. One might plausibly wonder whether global warming is too complex to be effectively managed.

Any significant change in governance opens up ethical frontiers that could result in administrative evil (Adams and Balfour 2009). For example, one could argue that Nazi Germany was an administrative state directed toward fascist goals, which sprang from the soil of post-WWI social instability. That soil was fertilized by Germany’s rapid industrialization. The same fundamental danger is present in the U.S. today. The faster the pace of technoscientific change, the greater the potential for democratic practices to erode, albeit behind the facades of iconic institutions. Yet political debates may have a backward focus that ignores or downplays emerging hazards, such as a greater discursive focus in recent presidential elections on refighting the Vietnam War than on stopping

global warming. This is a presenting symptom of a significant industrial issues backlog maintained by the consumptive addiction plastic triangle.

CONCLUSION

A consumptive state represents a system of governance that has emerged in the U.S. as first modernity has been eclipsed by second modernity. Its overarching dynamic is the mismatch between governing institutions still significantly grounded in industrial theory and practices, and the rise of hazards with very different characteristics. The relative invisibility of risk society hazards might lead one to assume that the transition from an administrative state is evolutionary. I would argue the opposite – the rise of a consumptive state represents a revolutionary change because it can result in system-destabilizing governance gaps that are irreversible and impact the entire planet.

A major assumption of consumptive state theory is that technoscientific development and commoditization are not bad per se, but that they may create unprecedented hazards that result in cultural lags too large, complex, fast-paced, and opaque to address before they cause significant harm and threaten democratic processes. This is why global warming is not just a technical issue to be managed by knowledge elites in the relative privacy of single-issue agencies and scholarly subfields; it raises fundamental normative questions about American public administration as a whole.

Discussing these questions can be challenging because neither theorists nor practitioners have yet to develop an effective language for grappling with a consumptive state's alien contours. The next chapter explores this dynamic.

CHAPTER VIII

CONTINGENCIES OF REVOLUTIONARY ACTION

The delimiting of hazards in time and space raise a philosophical question that our nation's founders could ignore: Should future generations, less-powerful nations, and other species vulnerable to the side effects of technoscientific development have an equal right to "life, liberty and pursuit of happiness" as current American citizens?

This question is largely absent from political discourse partly because we have not yet developed the language needed to make sense of the unprecedented dynamics of a risk society and consumptive state. This chapter analyzes these dynamics on two fronts.

The first section develops a more contingent, both-and alternative to Beck's rule-directed/rule-altering duality. I argue that a consumptive state is marked by policy forks in the road that all lead to revolutionary outcomes, but they may be masked by hyperreality's normative funhouse of mirrors. Analytical frameworks are presented that can be used to at least partially make sense of the resulting images.

The second section applies David Orr's (2004b) conception of moral imagination to closing governance gaps. This story line is assessed within the context of the consumptive citizenship feedback loop, the ecology of social-change processes, and the dangers of a change agent becoming a consumptive casualty.

THE LIMITATIONS OF FIRST MODERNITY'S LANGUAGE

During first modernity, political revolution has been commonly described as an “overthrow of a government, form of government, or social system . . . with another government or system taking its place” (Neufeldt and Guralnk 1988, 1150). Attention is focused on changes in artifacts such as a constitution. This definition has less utility in second modernity, where the relatively unchanging facades of a political order can mask fundamental changes in power relationships as hazard footprints become delimited in time and space. No governments need to fall – or change a single law, for that matter – in order for global warming to fundamentally and permanently alter the power relationships between nations, generations, and species.

What language might one use to accurately describe the magnitude of global warming? A *Lancet* (2001) editorial argued that it amounted to “biopolitical terrorism,” noting that U.S. consumers emitted 10 times as much carbon dioxide per capita in 1998 as those in developing nations. David Orr (2000) compares global warming to slavery in its exploitative power, with a key difference being that slaves could hold out the hope of escaping their oppression. Ross Gelbspan describes the fossil fuel industry’s successful efforts in the U.S. to thwart global warming legislation as a “crime against humanity” (2004, 13). Does the U.S.’s refusal to approve the Kyoto Protocol amount to an act of aggression? Should big SUVs be considered weapons of mass destruction, thereby giving the European Union legal and moral justification to invade the U.S. and install a new government that makes the American highways safe for Renault mini-cars?

Such questions are laughable when viewed through the normative lens of first modernity, where a conventional definition of aggression is “an unprovoked attack or

warlike act; specif., the use of armed force by a state in violation of its international obligations” (Neufeldt and Guralnk 1988, 25). How can policy stasis be considered an act of aggression when there is no direct and immediate physical harm to the victim and one cannot pinpoint blame for a phenomenon with diffuse natural and human origins? Indeed, no one can even “prove” that current IPCC projections are reasonably accurate.

Robert Samuelson (2004) illustrated this view by decrying a lawsuit filed against a handful of electric utilities to force them to reduce greenhouse gas emissions (Revkin 2004). The *Washington Post* columnist would presumably have equally low regard for prospective lawsuits by Tuvalu, a South Pacific nation that has considered suing the U.S. and Australia for damages because the low-lying island may be the first one to disappear beneath rising sea levels as a result of global warming (McKibben 2004).

These lawsuits point out a consumptive state’s mismatch between its accountability mechanisms and hazard characteristics. Because of this mismatch, Samuelson (2006) accurately predicted that the above-mentioned lawsuit would be thrown out of court because the legislative branch is the more appropriate venue to make law. However, his perspective is grounded in negative fatalism. Samuelson argued that we are “powerless” to stop global warming without technological breakthroughs because population and economic growth will demand greater fossil fuel consumption.

In contrast, environmental writer Bill McKibben insists that we must take responsibility for the likely outcomes of global warming:

There is nothing inexorable about what is happening to Tuvalu, and to every other place on the planet. It is all happening by choice, our choice. . . . Admittedly, no one intends this destruction – on the other hand, nobody is doing much of anything to stop it, either. Eventually, of course, our inaction will do enormous damage even to our midlatitude fortress continent. Those pictures of (Tuvalu’s) crumbling foundations, swelling

lagoons – that’s our future too, along with parched deserts, dying forests, discombobulated agriculture. By the time that future kicks in, later in the century, we will be hard-pressed to say we don’t deserve it. (McKibben 2004, 33)

The “we” in that last sentence refers to overconsuming Americans. McKibben does not distinguish between current and future citizens. Is he suggesting that the latter “deserve” to pay for the sins of their forefathers? Does he believe global warming is just punishment for anyone? I suspect not, but this illustrates the dangers of applying the language and concepts of first modernity onto the moral dilemmas of a risk society.

One underlying question under debate is whether an individual nation should be held accountable for contributing to a hazard of diffuse international origins. If so, how? If not, how does that redefine the nature of democracy? Risk society theory suggests that these questions do not lend themselves to the either-or dichotomies of first modernity. Yet the abstractness of the hazards tends to encourage the use of “hot” language that makes them both more visible and mischaracterized. Describing inaction against global warming as bioterrorism connects the cause and effect of fossil fuel consumption, yet it is both inaccurate and insulting to imply that the Hummer driver acts with the same intent as a suicide bomber. The obvious alternative to coopting old terms is to create new ones, but that could be a slow and potentially unsuccessful process.

Hot but ill-fitting words are the discursive equivalent of Tuvaluans suing the U.S. government; they are first steps toward closing governance gaps. These discursive cooptations will generate awkward metaphors vulnerable to critique within first modernity’s referents. Given the sheer size of a risk society’s structural traps, people like Samuelson may successfully exploit the consumptive advantages of defending their social group’s discursive core against paradigm-challenging Cassandras.

Hyperreality, revolution, and revolution blindness

Hyperreality adds to the difficulties of discussing political revolution in a consumptive state. The term *revolutionary* has been applied with such abandon in product marketing that its meaning has been diluted. This can also be seen in political discourse, where labels such as “radical” and “revolutionary” are often used as rhetorical weapons. For example, Paul Krugman (2003) described the G. W. Bush administration and its allies as part of a “radical right” attempting to hoist “revolutionary” policy changes upon an unwitting polity. Krugman argued that this movement was not intent upon merely shrinking the regulatory apparatus and social safety net of an administrative state, but rather regarded its very existence “as a violation of basic principles” (2003, 6).

The successful implementation of the Bush policy agenda could have resulted in dramatic changes in the structure and functions of American government. Nevertheless, I would not call the dismemberment of an administrative state revolutionary per se, because if it had occurred even 25 years ago it would have merely reflected a political pendulum swing from left to right that stayed well within the confines of the American constitutional order. The revolutionary repercussions of a consumptive state reside within the mismatch between the characteristics of emerging hazards and the state’s capacity to address them. Viewed through the lens of first modernity, G. W. Bush’s global warming policies could be seen as a routine balancing response to the more rule-altering Clinton administration. The revolutionary nature of Bush’s policies resided in the long-term damage they could cause to humanity and the biosphere.

Krugman's analysis is more useful in describing how a political establishment can have difficulty responding to a revolutionary movement. He drew upon Henry Kissinger's critique of the political power elite in 19th Century Western Europe:

Lulled by a period of stability which had seemed permanent, they find it nearly impossible to take at face value the assertion of the revolutionary power that it means to smash the existing framework. The defenders of the status quo therefore tend to begin by treating the revolutionary power as if its protestations were merely tactical; as if it really accepted the existing legitimacy but overstated its case for bargaining purposes; as if it were motivated by specific grievances to be assuaged by limited concessions. Those who warn against the danger in time are considered alarmists; those who counsel adaptation to circumstance are considered balanced and sane. . . . But it is the essence of a revolutionary power that it possesses the courage of its convictions, that it is willing, indeed eager, to push its principles to their ultimate conclusion. (Kissinger 1957, 2-3)

Krugman ascribed this revolutionary zeal to contemporary conservatives. One need not accept this description to appreciate how the broader dynamic Krugman sketched can play a central role in the rise of a consumptive state. A polity accustomed to a period of stability may have difficulty adapting to the onset of a turbulent era where fundamental normative questions rear their heads. This difficulty may be heightened if the catalysts for this turbulence are invisible hazards, e.g., the revolutionary implications of global warming can be brushed aside by rejecting scientific findings. I will henceforth refer to this form of denial as *revolution blindness*, and would add it as a fourth element to Philip Selznick's (1957) institutional maladaptation typology discussed in Chapter III.

A more contingent analysis of rule-altering behavior

What role should public administration play in this complex drama? Beck essentially argues that closing the governance gaps of a risk society will require public administration to transcend its traditional role as a technocratic, rule-directed profession

to one that acts as a subpolitical, rule-altering catalyst for paradigm-shifting change.

While I agree with the spirit of this analysis, a more contingent approach would seem better suited to the paradoxical nature of revolution in a consumptive state.

Distinguishing between rule-directed and rule-altering action can be difficult given the invisibility of hazards as well as the hyperreality of discourse, where outcomes can be masked by story lines that promise the opposite. In a consumptive state, conservative rhetoric can accompany revolutionary agendas, and vice versa.

For example, assume that an agency’s response to global warming could fall anywhere between four extremes on an institutional-change matrix (see Table IX). A conservative story line can justify any of the four scenarios. In Scenario 1, a public administrator might propose that the best way to maintain the status quo would be to ignore the hazard, e.g., refuse to use its regulatory authority to increase fuel-economy standards on automobiles. That inaction could contribute to global warming. Here, institutional conservatism contributes to radical social change.

TABLE IX. Institutional responsiveness to a governance gap: four extremes

<i>Stated policy goals</i>	<i>Institutional status quo</i>	<i>Institutional “murder”</i>
<i>Preservation of a governance gap</i>	1. Policy stasis and/or inaction avoids closing gap	2. Faux-revolutionary restructuring pretends to close gap but does opposite
<i>Aggressive closing of a governance gap</i>	3. Policy stasis and/or inaction closes gap	4. Fundamental restructuring closes gap

At the other extreme, an administrator could argue that the best way to conserve the American way of life would be to engage in radical institutional changes, e.g., calling for her agency to be replaced by a new one with a different structure and culture better suited to addressing the hazard characteristics of global warming (Scenario 4). This would amount to the ultimate in rule-altering behavior: institutional murder.

In between these extremes are two scenarios that illustrate a divergence between rhetoric and on-the-ground outcomes. In Scenario 2, an administrator could propose what on the surface were sweeping policy changes that, in fact, perpetuated organized irresponsibility under a new guise. By the same token, in Scenario 3 an administrator could withstand pressure from vested interests and refuse to dismantle policies that had been useful in helping to control greenhouse gas emissions.

For the sake of simplicity, Table IX assumes that stated policy goals are fully implemented. In practice this is unlikely to occur, so a more realistic matrix would require additional dimensions that displayed the congruence between rhetoric, action, and outcomes. This can add up to a funhouse of mirrors where it may be highly problematic to apply either-or theories in assessing whether an institution is likely to close a governance gap. Indeed, the practitioner realm in a consumptive state may be filled with more nuance than can be reflected in scholarly theory.

A case study: Administrative conservatism and global warming

One of the field's most prominent advocates of an inactivist vision of the future was Larry Terry, who suggested that public administrators should act as "conservators" (1995, 2003). His thesis was that "the primary function of bureaucratic leaders is to

protect and maintain administrative institutions in a manner that promotes or is consistent with constitutional processes, values, and beliefs” (Terry 2003, 24). Critical theorist Curtis Ventriss (1998a) argued that Terry’s Burkean logic placed too much emphasis on preserving institutional power that may perpetuate oppression. In sync with Beck’s criticism of conservative protectionists, Ventriss argued that Terry “forgets” what economic “forces can do to eviscerate the sustained values Terry holds so dear” (1998a, 97). These are useful points but do not address the both-and value of administrative conservatorship in a risk society.

To get a sense of why, imagine that Terry had been asked to lead a Homeland Security-style agency charged with coordinating federal action on global warming. He would have been confronted with the following questions: Should his agency “conserve” an automobile-dominated transportation system or coastal cities vulnerable to rising sea levels? Should he protect the coal-fired plants of the Midwest or the wheat farms of the Great Plains? What would be the more “conservative” option: Shifting billions of dollars in subsidies away from fossil fuel interests or allowing climatic zones to be dramatically redrawn? Since Terry privileged individual rights, whose life, liberty, and pursuit of happiness would be given greater protection here? Would policy stasis or radical action best conserve the mission, values, and support of his agency, as well as “preserve the constitutional balance of power” (Terry 1995, 183)?

Terry’s Burkean story line could be used to justify aggressive global warming policies because this hazard arguably poses a greater threat to civilization’s traditions than economic impacts to industries that produce excessive greenhouse gases. Of course, political conservatism can also justify the opposite. Terry could have argued that regime

values are anthropocentric and contempocentric. Such an agenda could be justified by a lack of scientific consensus or masked by simulated action.

Thus, it was quite appropriate for Ventriss to tease out the longer-term implications of Terry's story line. At the same time, from a whole-systems perspective interactivists will not be successful in stopping global warming by going it alone. As discussed in previous chapters, they will invariably need to find common ground with inactivists like Terry as well as preactivists, and reactivists. Ventriss and Terry may have been at opposite sides of the ideological spectrum, but when confronted by risk society hazards that was likely less important than whether they could agree to coalesce around at least partially overlapping policy agendas. The crucial first step would be recognizing that either-or thinking precludes the possibility of such collaboration.

Consumptive state colonialism and public administration's double bind

The pragmatic goal of avoiding a risk society's structural traps may result in discursive silence or faux conflict. While this strategy may result in incremental advances, it can also sidestep the conflict needed for paradigmatic change to occur. One of the most important questions that can be asked is whether a policy debate dwells on quick techno-fixes or addresses the normative issues needed to close a governance gap, e.g., the continued viability of the industrial ecology model.

Those who challenge the normative status quo are likely to be marginalized as "extremists" or even "crazy." The flip side to this has been expressed by Theodore Roszak (2001), who argues that it is ecocidal to continue engaging in consumptive behaviors that contribute to the likes of global warming. Whether they like it or not,

public administrators are stuck in the middle of this conflict, and how they navigate it could have repercussions both for the polity and their personal consumptive success.

To avoid confusion regarding rule-directed and rule-altering action, when appropriate I will use colonialism and decolonialism. *Colonialism* supports the externalization of risk onto other generations, less powerful nations, and/or the biosphere. *Decolonialism* internalizes risk onto those who benefit most from it. Colonialism may manifest in institutional change or stasis, and it may be explicit or masked. Given the contingencies of policymaking in a public agency that must negotiate with competing interests, administrators might find themselves engaging in both colonizing and decolonizing actions, perhaps with the opposite stated intent or through rhetorical silence. Three points follow from this discussion.

Point 1: Assessing whether a policy could close a governance gap requires looking at any deviation between stated intent and on-the-ground results. This has become more difficult in a post-industrial culture, where words and actions are increasingly estranged from reality (Beresford 2000).

Point 2: The philosophical underpinnings of a consumptive state are different enough from those of an administrative state that radical, rule-altering outcomes are necessary to complete a transition. The G. W. Bush administration elicited fiery opposition from administrative state defenders precisely because it aggressively pursued corporatist rather than statist policies, and eschewed the provident society in favor of risk individualization. Beck implies that attempts by public servants to use their bureaucratic power to thwart risk individualization is futile if they cling to obsolete communitarian visions of a nation state-focused system of governance. However, it strikes me as well

within risk society theory's both-and thinking to acknowledge that public administration may at times be able to best champion decolonialism by embracing policy stasis – that is, protecting institutional practices established during the heyday of an administrative state that are under attack by deregulatory movements. “Red tape” may be regarded as evil by commerce, but it can slow technoscientific development to a more manageable pace without public servants having to step out of their traditional Jeeves-like role.

Defenders of an administrative state are henceforth described as *administrative state protectionists*, a fourth category to Beck's (2003, 127) trilogy of conservative, green, and red protectionists, as discussed in Chapter II. This category includes those who argue it is possible and desirable to maintain an administrative state despite the emergence of second modernity.¹

Point 3: A consumptive state is marked by many forks in the road, each of which can lead to technoscientific – and, ultimately, political – revolution. Public administrationists cannot ultimately choose between preserving the status quo and supporting radical change. This predicament functions as a political version of a double bind (Bateson 2000), where even the no- or modest-change options are nostalgic illusions that lead to back-door revolution. The key questions thus become: Which revolutionary values are privileged, who is most helped and hurt by those normative priorities, and what role did consumptive self-interest play in an administrative decision?

Public administrators function as masked revolutionaries

Consider a scenario where federal policy analysts propose that it is too economically risky for the U.S. to take a leadership role in stopping global warming, so domestically produced emissions should be allowed to continue growing. If this policy were implemented, that would effectively rewrite the constitutional order just as it would help redraw coastlines, shift grain-growing belts, and result in new disease vectors. A two-tiered system of citizenship would result that treats future generations, less-powerful nations, and the biosphere like the colonies of a 19th Century imperial power. The very meaning of American democracy would be redefined.

Maintaining the modernist ancien regime is not possible in a risk society. One way or another the American constitutional order will be fundamentally changed by how we respond to hazards such as global warming. Public administration represents only one heterogeneous set of actors in this drama, but it is a grave mistake for the field to absolve itself from facing these normative issues by arguing (directly or indirectly) that it functions as Jeeves. To whatever degree this was once the case, it is no longer true.

Of concern are not only senior U.S. officials involved in major policy issues such as CAFE fuel-economy standards. Perhaps more important are the thousands of facilities managers, motor pool coordinators, and secretaries who have discretionary power to influence the production of greenhouse gases. These public servants, some of whom take an oath to uphold the constitution, wield the power to help reframe it – usually unconsciously and unplanned, as part of mundane duties delegated to them.

A key ethical question of a consumptive state is how should public servants act if their specialized knowledge leads them to conclude that a hazard must be addressed

through action that goes against prevailing institutional values such as a rigid adherence to the industrial ecology model, the politics-technoscience dichotomy, and overconsumption. If virtually any step they take has revolutionary implications, on what basis do they make a decision? For example, is it ethically acceptable for a public servant to undermine a law that arguably leads to the colonization of future generations?

Rosemary O’Leary’s (2006) concept of “guerilla” public administrators is not framed within a revolutionary context, but her questions have application here:

If you are a government guerilla, how do you *really* know when or if you are right? Where do you draw the line between sincere concern and arrogant hubris? When do ends justify means? Other questions include, At what point does guerilla government violate professionalism? Is there, or could there be, a “dark side” to guerilla government? How can a public servant dissent responsibly and ethically? (2006, xi-xii; original italics)

Beck (1999) implies that public servants should eschew unreflexive loyalty to the dominant practices and values of their profession, academic discipline, public agency or constitutional order, but instead should embrace a cosmopolitan consciousness and function as entrepreneurs navigating neo-Machiavellian power networks in a “refeudalized” social structure (Beck 1997). If so, how should they be held accountable?

These questions illustrate how public administration now functions as a cadre of de facto revolutionaries, a role more insidiously powerful when unrecognized by the field as well as the polity. On a superficial level one might view an archetypal public servant as a Clark Kent-type character who secretly plays a key role in determining society’s fate. However, administrative action is usually the opposite of a *Superman* movie’s dramatic cause and effect. Actions will tend to be piecemeal, their implications murky, and policy stasis can have a larger impact than aggressive action. The revolutionary nature of policy outcomes may not be widely recognized until well after the fact, when

they may be irrevocable, and their origins too diffuse to ascribe clear-cut accountability. In other words, the field's revolutionary powers are heavily masked.

CONSUMPTIVE CASUALITIES AND MORAL IMAGINATION

The onset of a consumptive state rules obsolete one of American public administration's most perdurable story lines. One hundred years ago Wilson essentially argued that an era of paradigm shifts had given way to a normal science (Kuhn 1996):

The weightier debates of constitutional principle are even yet by no means concluded; but they are no longer of more immediate practical moment than questions of administration. It is getting harder to *run* a constitution than to frame one. (1887, 200; italics in original)

Risk society hazards bring to an end this epoch. Questions about international, intergenerational, and interspecies equity cannot ultimately be dealt with on only a managerial or statutory level with predominately inactivist and preactivist visions of the future. Constitutional principles must eventually come to the fore, along with interactivist and reactivist unmaskings of long-settled normative questions. Public administrators may not have the law-making powers of elected officials, but their discretionary power can be used to either unmask the normative dimensions of a hazard or hide them behind the phantasmagoria of glittering managerial quick techno-fixes.

The above line of thinking has important implications for the scholarly community. Given the gatekeeping function of MPA degree programs, should the curriculum – and its underlying literature – discourage, encourage, or take a neutral stance on administrative story lines that perpetuate colonialism? This invariably requires answering the question raised in the previous section: What constitutes professional ethical behavior in a consumptive state? For all of its internecine debates, schools of

thought rooted in an industrial ethics paradigm generally share one commonality – they are primarily rule directed. Follow your profession’s ethical code and you will be considered (at least by your profession) to have acted in an ethical manner. But what if these rules effectively legitimize and normalize risk society hazards?

Future generations will invariably ask: Did global systems of governance keep the polar ice caps from melting? If the answer is no, I would argue that this failure cannot be written off as mere incompetence, entropy, or an evolutionary dead end if the outcome was significantly driven by a normative commitment to colonialism. It is irrelevant whether such a commitment is stated explicitly or is masked beneath supposedly value-neutral technical story lines espoused by Jeeves the bureaucrat.

Public administrators wield real power due to their regulatory role, access to technoscientific knowledge, and consumptive decisions. Accelerating technoscientific development adds pressure to more quickly and aggressively use that power to address hazards that threaten to spiral out of control in the midst of political paralysis in legislative and judicial arenas. However, public servants must do so within a context of the administrative state’s decline, the consumptive insecurities of individualization, the rise of a conformity inducing “wartime” discursive climate, and expanding knowledge gaps between their professional subfield and the rest of the polity.

This raises an existential question for all prospective Cassandras: How high of a price should they pay in order to help close a governance gap? Just as battlefield casualties are integral to warfare in an industrial milieu, *consumptive casualties* may be endemic to a polity’s response to the hazards of a consumptive state. For example, how many public employees would need to challenge colonialism in their agencies and

professional associations – perhaps at great cost to their careers – in order for American government to adequately respond to global warming? Assume for the sake of discussion that Sir David King, the British government’s chief scientist, turns out to be correct that global warming represents “the most severe problem that we are facing today – more serious even than terrorism” (2004, 176). “Doing your patriotic duty” can have a different context than in first modernity, where enlisting in the armed services came to be seen as the greatest symbol of service to one’s homeland.

This is not to suggest that a whistleblower who is fired and subsequently goes bankrupt has made a sacrifice as great as an army enlistee who dies in the Iraq conflict. Nevertheless, courageous displays of consumptive citizenship are given little acknowledgement by institutions still primarily focused on responding to the more visible and less complex hazards of first modernity.

Given all of these pressures, it would make sense for practitioners worried about job security to whistle a happy tune while running their corner of the ancien regime with Jeeves-like efficiency even if they are perpetuating colonialism. By the same token, public administration scholars would be well advised to stick to relatively safe discursive grounds. Even exotic flights into theoretical abstraction may pose less of a career risk than discussing in clear and explicit terms the field’s revolutionary powers.

Using moral imagination to close governance gaps

David Orr proposes an alternative to discursive silence. He argues that the great environmental problems of our time will not be solved without courageous exercises in *moral imagination*. This requires an interdisciplinary perspective that allows a more

comprehensive understanding of a hazard (Orr 2004b; 1994). Such a perspective has become increasingly difficult as knowledge and labor have grown more specialized, and hazards more diffuse and invisible. Here is where trained incapacity can be most problematic, because it can result in knowledge elites refusing to grapple with hazards that reside outside their profession's traditional discursive core. Indeed, the normative roots of first modernity, e.g., as expressed in the industrial ecology model, are a powerful manifestation of discipline-centrism. Orr does not view the unmasking of anthropocentrism and contempocentrism as merely an intellectual parlor game.

To ask such questions is to reveal problems far too complex to solve with anything like intellectual finality. It is easy, particularly for academics, to get caught up in interesting puzzles of this sort and miss the larger point altogether. The fact is that we stand on the edge of an abyss unbridgeable by science and intellect alone. Eventually we will have to *feel* the truth of the matter. (Orr 2004b, 77, original italics)

In other words, the key to solving environmental problems is for humans to reconnect on a psycho-spiritual level with nature and community (Orr 1992, 1994). Orr has also emphasized the linking of theory with practice. Demoralization, cynicism, and passivity are likely to result when college students learn about injustice and ecological decline without having the opportunity to develop "personal competence" in translating their values into practical change (Orr 1992, 104). This is why curriculum reform will not, in and of itself, lead to a "moral revitalization" of the university (Orr 1992, 151). Just as important is a wide-ranging overhaul of the consumptive practices of academia. Orr (1998) called on the institution where he teaches, Oberlin College, to adopt a 10-year goal of becoming the world's first college to power itself without fossil fuels. He backed his words with actions. In 1998, Orr's environmental studies department broke ground on a building with state-of-the-art ecological features (Exner 1998).²

Orr's civic voice illustrates how there are two levels to engaging in moral imagination within a consumptive state. The first step is to trace risk society hazards to their normative political roots rather than treating them merely as technical problems to be solved by greater doses of science and technology. The second step is to link theory and practice by connecting thoughts with emotions, and analytical critique with actions that change institutional consumptive practices. Paradigm-challenging theory alone will not stop global warming. Nor will critiques of institutional practices unless they are linked to decolonialism initiatives that result in tangible outcomes, such as a reduction in the greenhouse gas emissions from public buildings.

Throughout his writings, Orr has emphasized the importance of responding to environmental hazards at the scale necessary to, in my terms, close governance gaps. For example, he argues that looming environmental catastrophes are not merely the product of inadequate statutes or bungled administration, but ultimately reflect the deficiencies of our constitution. Whereas a prime focus of U.S. constitution writers was to protect against the tyranny of taxation without representation, the resulting document – even after numerous amendments – does not adequately address the leading tyranny of a postindustrial society: “extermination without representation” (Orr 2004a, 23).

Tyranny is now intergenerational and to a great extent irrevocable, and therefore beyond remedy. The effects of climate change, loss of species, destruction of ecosystems, and tropical deforestation are global, threaten to erode the ecological foundations of civilizations, and are for all practical purposes permanent. In other words, the global environmental legacy of industrial-era generations casts a long shadow on future generations everywhere, for all time. If this tyranny is to be avoided, the present generation must act to restrain its appetites and behavior. Our time is far more portentous than that of the framers and calls for a more thorough consideration of law, democracy, rights, and the public trust relative to the human prospect. (Orr 2004a, 23)

Orr argues that although the constitution framers did not understand the ecological ramifications of unfettered technoscientific and economic advancement, they did view constitutions as living documents, subject to change as circumstances necessitated. Interestingly, this is not a rhetorical build up for Orr to propose wholesale constitutional revisions, but merely a new amendment that “guarantees the right to a healthy environment” (2004a, 24). Orr clearly struggled with the tension of challenging readers to reach beyond the discursive core of statute-focused environmental policy – but not so far that his vision would be rejected as a hopelessly utopian flight into abstraction.

In light of Orr’s livelihood as a college professor, one of his most provocative displays of moral imagination is a wholesale critique of higher education. He argues that the leading environmental hazards of our time are not the product of ignorance, but rather of people with high levels of education. “Elie Wiesel once made the same point, noting that the designers and perpetrators of Auschwitz, Dachau, and Buchenwald – the Holocaust – were the heirs of Kant and Goethe, widely thought to be the best educated people on earth” (Orr 1994, 7). On the other side of the coin, “It is a matter of no small consequence that the only people who have lived sustainably on the planet for any length of time could not read, or like the Amish do not make a fetish of reading” (Orr 1994, 8). Orr does not reject education and literacy per se, but rather an educational paradigm that “emphasizes theories, not values; abstractions rather than consciousness; neat answers instead of questions; and technical efficiency over conscience” (Orr 1994, 8).

The consumptive feedback loop, Trojan horses, and institutional change

Orr's critique is bold and comprehensive. Even so, he – like many environmental Cassandras – pays relatively little attention to the consumptive risks of acting upon one's moral imagination. I would describe this rhetorical strategy as the *eco-warrior model* of activism, whereby the prime goal is to maximize the number of recruits sent out to do battle. Whatever the advantages of this model, a major downside is that it may result in a high number of consumptive casualties because Cassandras may not understand the complex nature of the institutional forces they hope to change. It is thus important to analyze how consumptive behavior can spur or impede efforts to shift a paradigm.

Here it may be useful to apply the consumptive citizenship feedback loop to Orr. The boldness of his moral imagination is clearly influenced by his choice of profession. Academia is more conducive to normative musings than the practitioner realm, and environmental studies is unusually receptive to critiques of the industrial ecology model and the politics-technoscience dichotomy because of its rare commitment to interdisciplinary inquiry and praxis. It is thus understandable why Orr is a major figure in environmental studies despite his paradigm-challenging civic voice. Would he feel greater pressure to engage in various forms of discursive silence in order to “fit in” if he were a public administration practitioner or scholar?

Assume for the sake of discussion that public administration cannot adequately respond to hazards such as global warming without approaching Orr's level of moral imagination. Does that suggest the need for dramatic changes in the field's psychostructure? I think so, but as discussed in Chapter III, a successful social-change

process is a team sport – it may require the interaction of people and groups with normative commitments to each of the four ways of viewing the future.

Alan AtKisson (1999, 182) makes a similar argument. Drawing upon the work of Everett Rogers (1983), he suggests that hazards such as global warming will not be stopped without a complex series of social interactions occurring between nine different types of actors. The rough equivalent of interactivists is represented by three groups: innovators, change agents, and transformers. These actors may be necessary to begin the social-change process, but their proposed innovations will not reach a tipping point without sufficient support from mainstreamers, iconoclasts, spiritual recluses and curmudgeons, as well as ineffective resistance from laggards and reactionaries. Orr, who might be classified as a change agent, should not be viewed as more heroic than a mainstreamer if the overall system responds with sufficient speed to a hazard. The moral imagination of mainstreamers may be expressed in more measured tones, but that could assist an innovation in reaching its tipping point because mainstreamers may be better able to avoid triggering the normative defenses of laggards and reactionaries.

What this suggests is that public administration does not necessarily have to be dominated by staunch decolonialists like Orr in order to play a positive role in responding to risk society hazards. However, one crude measure of the field's adaptation would be the presence of at least a few decolonialist innovators, change agents, and transformers who are making inroads into the field's discursive core.

The above does not imply that mainstreamers can leave the consumptive risk taking to visionaries like Orr. It means that the discursive strategies of mainstreamers may require various forms of silence, e.g., by creating *Trojan horses* that fit well within a

social group's discursive core but obliquely open doors to decolonialism. Trojan horses steeped in preactivist, inactivist, and even reactivist visions of the future will likely have an easier time of transcending political paralysis rooted in the consumptive addiction plastic triangle, but they may also be more likely to result in quick techno-fixes that fall short of closing a governance gap. This is why some degree of explicit interactivism cannot ultimately be avoided by mainstreamers in order to shift a social group away from colonialism. The difficulty here is accurately projecting the long-term trajectory of a change initiative while navigating a consumptive state's normative funhouse of mirrors.

In this murky and high-pressure environment, it is understandable that public administrationists may attempt to avoid career-damaging structural traps by lapsing into maladaptive behavior. A major tension in a consumptive state is between interactivists advocating decolonialism, and preactivists who embrace overly safe and narrow policy goals in an attempt to deflect attacks from pro-colonialist deregulatory forces.

Given the above discussion, I would suggest that moral imagination within a consumptive state includes four key characteristics:

1. Even seemingly benign technical actions are reflexively assessed for their normative consequences, e.g., do they perpetuate colonialism?
2. Theory is linked to practice and rhetoric to outcomes. Actions are assessed for maladaptivity, such as overcompartmentalization, cooptation, flights into abstraction, and revolution blindness.
3. The consumptive citizenship feedback loop is used to assess the congruence of one's actions, e.g., do consumptive and career choices allow meaningful

steps toward helping close governance gaps, or do consumptive addictions preclude acting with integrity?

4. Reflexivity is maintained regarding where one is situated vis a vis other types of actors, and how one's civic voice might change as the process unfolds.

CONCLUSION

Chapters II through VIII suggest that the certainties of an administrative state have melted into a warming sea of unintended consequences. This chapter caps this discussion by assessing the contingencies of administrative discourse and actions within a revolutionary milieu. The way forward may be fraught with consumptive dangers and obscured by a normative funhouse of mirrors. However, Orr's perspective on moral imagination and AtKisson's schemata of the social change process offers tools for acting as political entrepreneurs navigating neo-Machiavellian power networks.

This chapter, like the essay as a whole, attempts to dovetail with risk society theory but adds detail or offers friendly amendments in a number of areas. Like Beck I have attempted to find a middle ground between the triumphalism of technoscientific optimists and those with apocalyptic tendencies. Nevertheless, I suspect that he may be too optimistic that radical reflexive modernization could spur the social learning necessary to close a world risk society's greatest governance gaps.

Nevertheless, Beck's warning about the paralysis of negative fatalism is well taken. The best use for world risk society theory may not be to fully embrace it, but to employ it in "what if?" exercises that unmask assumptions of public administration theory. In Chapter IX we hold up a mirror to the field.

CHAPTER IX

SEE NO REVOLUTION, HEAR NO REVOLUTION

Public administration theory has not yet addressed the most significant implications of a world risk society and consumptive state. This chapter analyzes why.

This is an important discussion for two reasons. First, if Beck is correct and risk society hazards such as global warming turn out to be one of the most significant hazards of the 21st Century, the American polity should rightfully expect public administration to show leadership in substantively responding to what amounts to a simmering constitutional crisis. Second, an analysis of the invisibility of risk society and consumptive state dynamics can shed light on the effectiveness of the field's knowledge production system during a time of accelerating change.

This chapter begins by presenting a framework with which to analyze the state of public administration theory. This framework is then used to discuss a handful of intermingling factors that interfere with public administration's ability to "see" and respond to a risk society and consumptive state. These factors – which include an adherence to the politics-technoscience dichotomy and the industrial ecology model – add up to a set of normative commitments that generally go undisclosed, despite their centrality to the substance of people's lives in the 21st Century.

PUBLIC ADMINISTRATION'S THREE SCHOOLS OF THOUGHT

A discussion of public administration's contemporary schools of thought can offer more nuance when grounded in the field's history. Nicholas Henry (1975) argued that the field has been dominated by four paradigms.¹ Henry's typology is valuable, but with one caveat: That public administration has operated under one paradigm for the last century, and what Henry describes are different eras.²

Henry drew major distinctions between each era by using Robert Golembiewski's (1977) typology of locus, or the "institutional where" of the field; and focus, the field's "specialized what." "(W)hen one has been relatively sharply defined, the other has been relatively ignored in academic circles and vice-versa" (Henry 1975, 378). The emergence of each new era has been marked by a shift in emphasis in the field's locus and focus. I have updated Henry's story line by proposing that in the mid-1990s the field moved into a fifth, *postindustrial era*. This can be seen in a partial theoretical shift in emphasis from focus (e.g., public interest values) to a renewed concentration on locus, whether through importing private-sector management reforms into government; or viewing public administration within the larger context of governance systems that include public, private, and nonprofit sectors.

Even so, the last decade and a half has also been marked by significant attention to the field's focus, such as by importing postmodernist and feminist theories into public administration's discursive boundaries (see Table X). The postindustrial era is thus unprecedented in having a dual emphasis on locus and focus. This is rooted in an equally unprecedented lack of unity regarding both the scope and methods of public administration (Uveges and Keller 1998).

TABLE X. Eras in American public administration

<i>Era</i>	<i>Locus (where)</i>	<i>Focus (what)</i>
1. Politics/administration dichotomy 1900-1925	(Emphasis) ----- Public bureaucracy separate from politics	Value-free science (e.g., Taylorism)
2. Principles of administration 1925-1950	----- Public/private management	(Emphasis) Standardized techniques
3. Public administration as political science 1950-1970	(Emphasis) ----- Public bureaucracy (different from private)	Administrative science Political philosophy
4. Public administration as public administration 1970-mid-1990s	----- Public affairs political economy	(Emphasis) Public interest values
5. Postindustrial Mid-1990s-to-date	----- (Dual Emphasis) ----- Market-oriented government Governance Society/culture	Management science Political philosophy Discursive practices Feminism

McSwite (1998) describes contemporary public administration as falling into three schools of thought: the New Theory, the New Normativism, and the Discourse Movement.³ Within each of these schools a normal science has developed that the power of nation states – the building blocks of an industrial political economy – are to some degree being eclipsed by international treaties, rapid transnational capital flows, global conglomerates, and an increasingly homogenized world culture linked by electronic technologies (Kettl 2000; Farazmand 2009). A key point of contention between the

schools of thought involves *how* public administration theory and practice should respond to the rise of a postindustrial political economy and culture.

*New Theory.*⁴ This school of thought's central theme has been that contemporary challenges are best responded to by drawing from the private sector and hard sciences new methods to improve organizational efficiency and effectiveness. The New Theory's locus is on governance, broadly conceived as the public, nonprofit, and public sectors; and its focus is on organizational management. This emphasis gives the New Theory the most direct lineage with public administration's early years (Terry 1998; Stivers 2000c). Nevertheless, the New Theory is liberally spiced with change-oriented rhetoric.

The dominant force within the New Theory has been the New Public Management. Larry Terry (1998) argued that this movement developed four major management approaches: quantitative/analytic, political, liberation, and market driven. The New Public Management is informed by a "neo-managerialist" ideology with roots in the organizational-efficiency initiatives of Frederick Taylor. The distinctive characteristics of the New Theory can thus be traced to this school's strong disciplinary affiliations with business management, neoclassical economics, and more recent forms of behavioralism within the public policy and other social science fields.

The New Theory has arguably been the dominant force in public administration for almost two decades, particularly in the practitioner realm. A key criticism is that it does not pay adequate attention to the normative aspects of public administration.

While most public management scholars explicitly acknowledge the political dimensions of their subject matter, they do so descriptively and instrumentally. The essentially contestable nature of questions like whether managers should be "engineers" or "entrepreneurs" (Diver 1982)

is rarely acknowledged. The proper role of public managers is addressed in terms of its utility – which understanding of public management will enhance managerial effectiveness – rather than philosophically – who should rule. (Stivers 2000c, 14)

New Normativism. The above quote is typical of New Normativist thinking. The roots of this school of thought reach back more than a half century to Dwight Waldo's (1984) critiques of the principles of administration era – the “old” New Theory. This intellectual tradition, which is grounded in political philosophy, has been heavily colored by two major movements: the New Public Administration of the 1970s (e.g., Marini 1971), and the Refounding Public Administration movement of the 1980s and 1990s (Wamsley et al. 1990; Wamsley and Wolf 1996).

The New Normativism is the most ideologically diverse of the three schools, ranging from critical theory and feminism to various strands of conservatism. Nevertheless, the New Normativism's locus has been governance, and its primary focus has been the role of political values in administrative practices. A major force in this school of thought is the *administrative autonomy movement*. These scholars (e.g., Rohr 1986; Wamsley et al. 1990; Green and Hubbell 1996; D. Williams 2000), who represent the remnants of the Refounding Public Administration movement, have coalesced around two story lines. First, they are the field's strongest bastion of administrative state protectionism. Second, they argue that the constitution implicitly grants public administrators the autonomy to act as a check on the power of elected officials.

McSwite (1998) suggests that the New Normativism draws its inspiration – either implicitly or explicitly – from communitarian values. Rationalism and its theoretical children (e.g., functionalism, institutionalism, and positivism) may be critiqued and

somewhat downsized, but are not largely or entirely rejected as is the case with the Discourse Movement. The New Normativism maintains a “heroic” commitment to

preserve, in this postmodern era, a sense of hope, progress, coherence, possibility. It wants to find a way of refurbishing the idea of values as important to social and personal life so that people can continue to have a foundation for moral sentiment and action. It wants to be able to rise up against evil and be able to fight the just war with confidence. (McSwite 1998, 379)

This can translate into administrative authority that opens the door to oppression.

Discourse Movement. This is public administration’s youngest school of thought. Its locus has also been governance, and its focus on relatively non-hierarchical discursive processes. Although this school of thought has roots in pragmatism – particularly the writing of Mary Parker Follett (1918, 1924, 1965) – its prime catalyst has been postmodernist theory imported from disciplines such as philosophy and linguistics. McSwite (1998) argues that the commonality which binds Discourse Theorists is a commitment to some form of process theory.

Although a small number of public administration scholars have advocated various permutations on a process-oriented theory in the last few decades (e.g., Thayer 1981; Harmon and Mayer 1986), it did not begin to generate much attention until the mid-1990s with the publication of three books: *Postmodern Public Administration* (Fox and Miller 1995), *The Language of Public Administration* (Farmer 1995), and *Legitimacy in Public Administration* (McSwite 1997). While diverse in their perspectives, each of these books offered a radical critique of the other two schools of thought.

For example, Charles Fox and Hugh Miller (1995) flatly declare existing public administration theory obsolete in a postmodern world. This is because the field’s theory

– despite its superficial diversity – is built upon the three pillars of public administration’s founding orthodoxy: a separation between politics and administration, the scientific application of management techniques, and hierarchical structures.

In parallel to criticisms of public administration’s Discourse Theorists, Jurgen Habermas has described postmodernists such as Foucault and Lyotard as neoconservative

because they can present no theoretical justification for an alternative to the status quo of contemporary capitalism. The postmodern avenue is micropolitics and a firm unwillingness . . . to rely on metanarratives. It has a preference for community initiatives, for instance, rather than national solutions. (Farmer 1995, 242)

Hybrid story lines result from institutional alliances

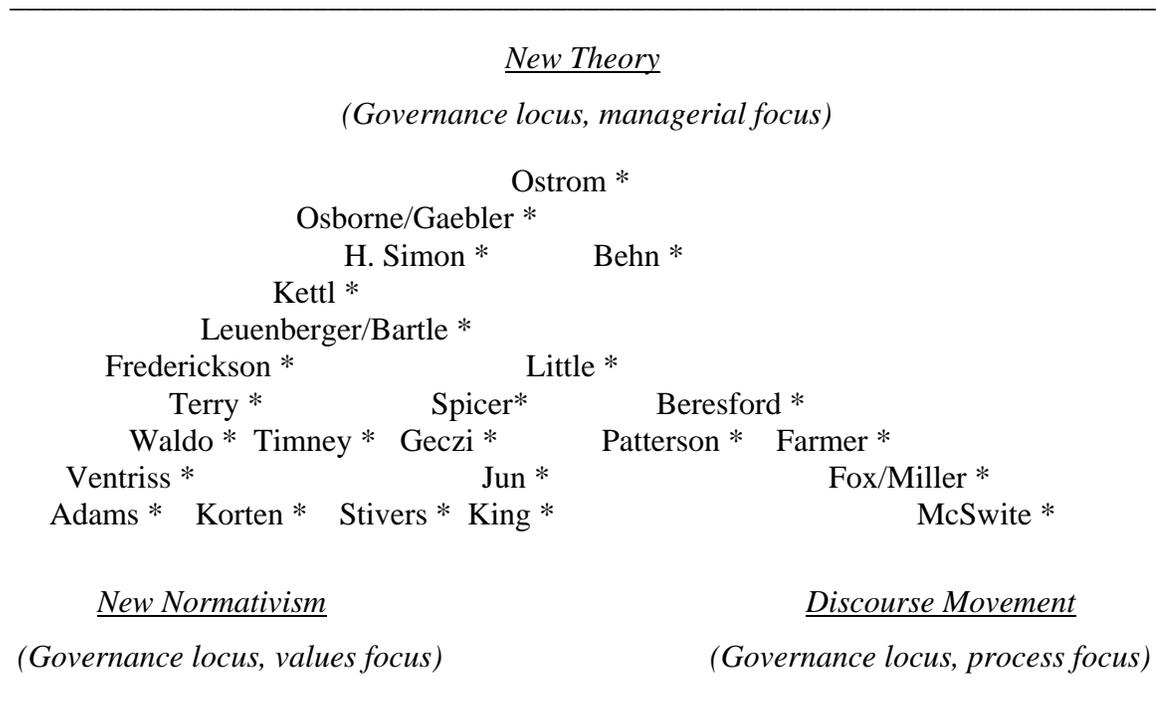
Not all discourse coalitions fit within one school of thought. As discussed further below, the *environmental policy subfield* may be small, but it represents scholars from each of the schools. The *citizen engagement subfield* has been more prominent, but it has orbited the New Normativism and Discourse Movement (e.g., Fox and Miller 1995; Schachter 1996; Stivers 1996; McSwite 1997; King et al. 1998; Geczi 2007). A focus on governance and policy networks has been a recent theme of all three schools, albeit colored by their respective methodological predilections.

The New Normativism tends to be much closer to the Discourse Movement than the New Theory, perhaps because both have felt dominated by the relatively non-normative New Theory (Stivers 2000b, 2000c). One way this has played out is that many in the New Normativism and Discourse Movement have called for expanding the field’s discursive boundaries (e.g., Box 1992; Farmer 1995, 2005; Rodgers and Rodgers 2000), while New Theory scholars have questioned whether public administration research has become too unfocused (e.g., Cleary 1992, 2000; Kettl 2002).

The development of hybrid story lines parallels institutional border crossings. For example, the growth of the Public Administration Theory Network (PAT-Net) has been crucial to theoretical bridge building between the Discourse Movement and New Normativism, particularly regarding citizen engagement story lines. By the same token, a dialogue between normative theorists and more traditional scientists have resulted from recent (if halting) efforts by the American Society for Public Administration (ASPA) to include normative theory sessions in its annual conference.

Given these discursive border crossings, McSwite’s typology may be best viewed as a tripartite dialectic rather than as discrete and static schools of thought. Figure 2 illustrates how some scholars may be more closely aligned with a given school whereas others operate farther out on the periphery.

FIGURE 2. Public administration’s theoretical triad



Rhetorical strategies can also be viewed through the lens of disciplinary competition, both from a historical context⁵ as well as between contemporary public administration schools of thought. Discursive tension has centered around New Theory's grounding in neoclassical economics versus the New Normativism's modernist political philosophy versus the Discourse Movement's postmodernist linguistics.

Transdisciplinary competition can lead to significant theoretical incommensurabilities. Nevertheless, I contend that these schools of thought share paradigmatic commonalities that limit the field's ability to "see" risk society dynamics.

FIELD HAS BEEN HESITANT TO DEAL WITH 'BIG' QUESTIONS

The most basic reason why risk society theory is marginal to American public administration is the field's relative lack of attention to explicit theories of state (Waldo 1984; Rohr 1986; Stillman 2001). This is despite attempts, particularly by New Normativists, to cultivate a greater discussion of the field's "big" questions (e.g., Stivers 2000d). Or, to be more specific, to expand the New Theory's focus on organizations (Behn 1995) to societal-level implications of public administration (Kirlin 1996, 2001).

Michael Spicer (2001) notes that the avoidance of theories of state has roots in the anti-statist and pragmatist leanings of American culture, which has fueled a relatively instrumental view of the field where facts have often been separated from values (H. Simon 1976) and politics from administration (e.g., Wilson 1887; Goodnow 1900/1967). This has resulted in a paradox noted by scholars within the New Normativism and Discourse Movement orbits: While public administration has tended to ignore questions

of political and constitutional theory, the field's practices have been grounded in "a very strong and politically value-laden vision of the state" (Spicer 2001, 4).

Explicit discussions about theories of state are most common among New Normativists, but Discourse Theorists argue that they contain questionable yet undiscussed assumptions (McSwite 1997, 2). The Discourse Movement's challenging of long-accepted theoretical nostrums of first modernity can help, in Beck's words, "open up the social sciences for new and contradictory experiences of the global age of global risks" (1999, 134). Beck's selective appropriation of constructivist approaches dovetails in a number of respects with the Discourse Movement's theories of state.

However, if Beck were a public administration scholar he would align with the critical theory wing of the New Normativism. This is because of its emphasis on the systemic contradictions of late capitalism. For example, while expressing a preference for Kirlin's big questions over those of Behn's, critical theorist Curtis Ventriss challenges both for not exploring the relationships between society, economy, and the state; and not investigating "the problems of social power and conflict and how this power and conflict is manifested within the context of governmental institutions" (1998b, 237).

FOCUS IS STILL PRIMARILY ON INDUSTRIAL RISKS

Public administration's literature has at least partially discussed all nine characteristics of risk society hazards, but depth and context have generally been lacking. No school of thought, let alone an individual scholar, can be cited as having connected the dots between all of these characteristics, although advocates of environmental sustainability have drawn the most linkages (see chapters X and XI).

Table XI itemizes industrial and risk society hazard characteristics and ranks the latter in order of those that appear to best fit within the field’s discursive core. What follows is a brief assessment of how the field has addressed each hazard characteristic.

TABLE XI. Risk society hazard characteristics, ranked according to prominence within public administration discourse

<i>Industrial society hazards</i>	<i>Risk society hazards</i>
1. Hazards localized in place	Can impact entire planet
2. Relatively linear hazard causation	Complex hazard causation
3. Amendable to centralized responses	Significant power of decentralized subpolitics
4. Localized in time	Multigenerational, possibly irreversible
5. Easily visible to laypersons	Requires science to make “visible”
6. Caused by nature/human ignorance	Caused by technoscientific development
7. Predictability allows “insurance”	Unpredictability destabilizes insurance
8. Linkage between class and inequality	Delinkage between class and inequality
9. Impact humans directly	Impact humans secondarily

1. Globalization of hazards. It has become a cliché within public administration that the fate of the U.S. is increasingly interlinked with that of other nations. This has led to at least a partial revival of comparative research (Heady 2001), a more international focus to professional associations such as PAT-Net and ASPA (e.g., PAR 2009), and increasing discussion of transnational hazards (e.g., Feiock, Moon and Park 2008; Brinkerhoff 2009; Datz 2009). However, a Beckian “cosmopolitan consciousness” has yet to generate significant attention in the field’s discursive core, which is still heavily informed by

methodological nationalism. For example, ASPA's focus still matches its name fairly closely: *American Society for Public Administration*.

2. Hazards have complex causation. This concept has the potential to fit relatively easily within public administration's discursive boundaries if the field shifted to a harder form of technological determinism. Public administration seems to have embraced, at least in general terms, the idea that society's problems have become more complex (e.g., Kovalick and Kelly 1998; Kettl 2000; Caldwell 2000a; Lambright 2008; Farazmand 2009). In addition, a fledgling subfield has explored chaos theory – which eschews linear causation in favor of complex and contingent factors (e.g., Diamond 1999; Little 1999). However, as discussed later in this chapter, discipline-centrism tends to marginalize whole-systems thinking, e.g., the lack of attention to Beck's risk society theory.

3. Difficulty of responding to hazards through centralized means. The field's dominant story lines partially dovetail with what Beck describes as a decline in the viability of traditional political institutions (e.g., nation states and command-and-control regulatory systems) and the rise of new policy processes and institutions that operate at least partially outside the public sector and the growing importance of subpolitical actors (Kettl 2000). Perhaps the greatest amount of debate may be over the scope and impact of individualization, particularly as it relates to the potential for reviving democratic will formation. Consumptive citizenship is still marginal to the field because of an emphasis on discursive forms of citizenship and a lack of attention to the normative political

implications of consumptive acts (e.g., escalating fossil fuel usage) on society's environmental – and political – sustainability.

4. Multigenerational and possibly irreversible hazards. How to address hazards that could have more impact on future rather than current generations has received little attention. When addressed at all within the New Theory it has tended to be within the context of cost-benefit analyses (O'Leary, Durant, Fiorino and Weiland 1999) or qualitative policy analysis that focuses only on the distribution of resources to those currently living (Wisensale 1999). Although one can find a few discussions of "intergenerational equity" within the New Normativist and Discourse Movement literature, it is rarely presented as a major concern (e.g., LaPorte and Keller 1996; Catron 1996; Timney 2001; Leuenberger and Bartle 2009). This is in contrast to risk society theory, which considers intergenerational issues of central normative importance because mega-hazards such as global warming are effectively permanent and irreversible.

5. Hazards require science to make visible. With only a few exceptions there is little explicit discussion about how contemporary hazards tend to be more invisible to laypersons without the mediation of science (e.g., Douglas and Wildavsky 1982; McSwite 2002; Lambright 2008). This underplays the urgency of Waldo's (1965) questions about the field's relationship with science, because it masks the escalating nature of structural traps between scientists, public administrators, and the public at large. For example, Discourse Theorists Michael Harmon and Richard Meyer (1986) blame increasing public disenchantment with government on a techno-rational approach to

problem solving. While this argument dovetails with Beck as far as it goes, it doesn't address the viability of constructivist approaches in light of accelerating technoscientific development.

6. Hazards rooted in technoscientific development. This topic has received the greatest attention from risk management scholars, but they have tended toward instrumental responses to hazards, such as a burst of discussion after 9/11 about reducing national security risks (e.g., Frederickson and LaPorte 2002; Wise and Nader 2002; Comfort 2002). The normative significance of manufactured risks has been given the most attention by the New Normativism and the Discourse Movement. The ways these schools of thought have handled this topic closely dovetails with their approaches toward technoscience in general, as discussed later in this chapter.

7. Unpredictability of hazards destabilizes insurance system. A major story line appears to be that the American political economy has become less predictable in recent decades (e.g., Farazmand 2009). However, few scholars have gone near Beck's assertion that first modernity's provident society is unraveling, and that the 21st Century will be marked by uncertainty, insecurity, and lack of control over hazards that had previously seemed manageable through technical rationality. The greatest attention has been given to the eclipse of the Fordist regime (e.g., Stivers, King, and Nank 1998; Felts and Jos 2000; Balfour and Grubbs 2000; Ventriss 2002), but there has been little discussion of the implications of a society less structured around the regular job with benefits.

8. Delinkage between class and inequality. Class-based analyses have always been marginal to public administration discourse. This story line reached its modest height in prominence with the New Public Administration movement of the 1970s (Frederickson 1971), and was essentially updated with the so-called Evergreen Manifesto in 1990 (Adams et al.). Beck's conception of individualization straddles the divide between critical theory and the Discourse Movement with regards to a class analysis. His call for new mechanisms for providing economic security in response to the end of the full-employment economy reads like a risk society version of the Evergreen Manifesto. At the same time, Beck's dismissal of traditional social science terms such as class, nation state, and family as zombie categories would likely be more readily agreed upon by the Discourse Movement than critical theorists.

9. Hazards impact humans secondarily. An early-1960s call for more attention to environmental issues (Caldwell 1963) has received only a modest response. The New Theory's empirical/analytic wing has dominated the discussion (e.g., Folz 1999; Feiock and Stream 2001; Leuenberger and Bartle 2009). Most philosophically focused writings could be classified as New Normativist (e.g., Mercier 1994, 2009; Ventriss 2000; Luton 2001b; Nelson and Weschler 2001; Geczi 2007). Discourse Theorists have paid the least attention to environmental issues (e.g., McBeth and Clemons 1999; Jacobs 2001).

Largely absent from all three schools of thought is a key tenet of risk society theory: Hazards such as global warming represent a serious threat to the stability of civilization (see industrial ecology section below for further discussion).

How public administration has addressed global warming

Global warming fits all nine characteristics of a risk society hazard, so it is an indicator of the field's difficulties in transcending first modernist thinking. This issue has received little attention within the scholarly community. *PAR*, the field's self-described "premier journal," has published few articles significantly focused on global warming (Lambright 1997, 2008). ASPA's non-peer-reviewed newsletter, the *PA Times*, has also rarely addressed this issue (e.g., Davis 1998; Salmi 1998; Timney 2004). *Administrative Theory & Praxis (ATP)* has published only one major article (Burke 2007).

This inattention might be easier to understand if it were not so complete. You cannot blame this on the newness of global warming, since it has generated newspaper headlines since 1988, when a prominent public administrator – James Hansen, director of NASA's Goddard Institute for Space Studies – warned of this hazard in testimony before Congress⁶ (Gelbspan 1998). Might the lack of attention reflect the biases of journal editors? Perhaps, but even if this were a major factor, editorial turnover has been great enough during the last two decades that it would be difficult for individuals to wield such complete agenda-setting power. While it may be the case that the lack of published global warming articles is representative of the number of journal submissions, this would illustrate the narrow discursive boundaries that public administration scholars impose on themselves, either consciously or unconsciously.

Much as global warming has gone largely undiscussed within public administration's major journals, the same is true of other emerging risks that could plausibly undermine American society's systems of insurance, such as nanotechnology and bioengineering. I would argue that this is because the field is still significantly

focused on the hazards of first modernity. In contrast, the 9/11 attacks primarily fit the most important characteristics of an industrial society hazard. Within a year after the attacks *PAR* published an entire special issue on that topic.

This lack of attention is particularly striking when compared with the American Planning Association, which has devoted considerable attention to global warming in its practitioner and scholarly publications and training programs (APA 2010).

How the field has directly addressed Beck's writings

The most obvious evidence that public administration theory has not addressed the dynamics of risk society hazards is that Beck's writings have received little attention in the literature (e.g., Salmi 2000; Hood and Rothstein 2001; Wagenaar 2002; MacDonald 2002) despite his prominence in European sociology for two decades.

Perhaps just as tellingly, one of the most extensive treatments of risk society theory I found in a public administration journal offers a fascinating case study of how the robustness of a new theoretical paradigm can be lost as it is squeezed into the confines of an old one. Susan MacDonald (2002) presents a good summary of key aspects of risk society hazards, and prescribes a recursive, dialogical risk-management process that encourages citizen participation prior to the design of risk-assessment studies – a process that Beck would likely approve (as far as it goes).

Alas, the most important ethical questions risk society theory raises, such as how can intergenerational democracy be achieved, are buried beneath layers of quasi-managerialist calculation. In a revealing display of future shock, MacDonald mentions global warming as a signature risk society hazard, yet concludes her essay by focusing on

risks that are mundane even within the context of first modernity, e.g., the unpredictable operating costs of a public health facility. I would suggest that this illustrates two maladaptations – what Selznick (1957) describes as a retreat into technology and what I call revolution blindness.

TECHNOSCIENCE AND ACCELERATING SOCIAL CHANGE

Scholarly literature has acknowledged that the power of public administration has grown with the size and complexity of society. But when technoscientific development has been discussed at all, it is usually been treated as an external phenomena requiring institutional adaptation (e.g., Terry 1995; Selznick 1957; Kiel and Elliott 1999; Lewis 2000), an internal management issue (Mosher 1982; Lambright 1994, 1998), or an instrumental tool for improving administrative efficiency and effectiveness (Landsbergen and Wolken 2001; Nunn 2001). These story lines may diverge on the appropriateness of separating politics from administration, but they at least implicitly accept that a major role of public administration is to facilitate, legitimize, and normalize technoscientific development rather than to challenge it in more than peripheral ways.

A relatively small number of public administration theorists have looked at technoscience's normative implications to the field. For example, Todd LaPorte warned in the late 1960s that American society needed to learn how to adapt its values to dramatic and sweeping technoscientific advancements – without succumbing to “awe before the machine, or ennui and anomie as we confront too many choices and changes with which we can neither cope nor understand” (2001, 405). Achieving this balancing act would not be easy because of what he described as the “tantalizing” promise of

achieving a society “this side of utopia” that could realistically include “a radical reduction of world and/or national poverty through technological advances” such as “almost unlimited amounts of energy through cheap nuclear power, limiting world populations or restructuring man’s genetic composition” (LaPorte 2001, 401).

This technoscientific utopianism may seem quaint when compared to the ambivalence apparent in more recent story lines. In the last 30 years the literature has been spiced with scholars who have critiqued the field’s affinity for a “science of administration”; that is, a focus on cultivating technical competence in public service unconcerned with the normative political implications of its actions (e.g., Wamsley et al. 1990; Terry 1998; Stivers 2000c). All of these New Normativists reject the politics-administration dichotomy, but none has critiqued in more than peripheral ways the field’s equally strong – and problematic – embrace of a politics-technoscience dichotomy.

Some of the earliest scholars who did were William Scott and David Hart. In a 1973 *PAR* article they labeled public administrators as an amoral societal elite that acts as the “handmaiden” of potentially dangerous technology (Scott and Hart 2001). In 1981 David Korten warned of the “faustian powers” of technology and industrialization (2001a, 480). A few years later Harlan Cleveland called for a modern-day reformation of science, which he described as the secular religion of modern government:

In Martin Luther’s time, indulgences and other forms of corruption had already polluted the social fabric and weakened the authority of the medieval church over secular affairs. In our time the social fallout of science and technology – the dangers of nuclear explosive power, the moral dilemmas inherent in biotechnology, the potentials of unprecedented climate change, the ambiguous miracles of informatics – has been advertised worldwide and is inducing global second thoughts. Meanwhile, American politics and public administration, which ought to be focusing on these larger, urgent, global issues, are mired in self indulgence and no little corruption. (Cleveland 1988, 684-685)

It is rare to find a story line that explicitly links technoscientific development in general with changes in the constitutional order – and public administration’s normative role in that process. This suggests that the field falls to the soft side of the technological determinism spectrum (see Chapter II). This theoretical bias has significant implications for how the field sees its past, present, and future.

Unlike Daniel Boorstin’s (1978) conception of revolutions, which looks at the impact of both political and technological change, scholars have focused on political pendulum swings or cycles (Kaufman 1969; Stillman 1982; Rosenbloom 1983; Waldo 1987; Kettl 2002). Some of these typologies acknowledge technology’s influence in political change, but they implicitly suggest that political dynamics are of paramount concern. Perhaps just as importantly, the above-mentioned typologies may be perdurable as long as technoscientific development rolls along the relatively flat slope of the j-curve of exponential change. But once the curve bends sharply upward, might that reduce the explanatory power of theories primarily grounded in historical political cycles?

Wrong-problems problem solving and either-or thinking

New Theorists such as Osborne and Gaebler (1993) do a better job than many in the other two schools of thought acknowledging – let alone apprehending – the acceleration of social change. Alas, recognizing a problem is only the first step toward fixing it. Pick the wrong “solution” and the problem could get worse rather than better.

When declaring that “the central failure of government is one of means, not ends,” Osborne and Gaebler (1993, xxi) embraced the instrumentalism of public administration’s founding story line in a possible effort to steer clear of the structural

traps that might befall an explicitly normative agenda. This proved to be an effective rhetorical strategy, just as it had been in years past. The downside, according to H. George Frederickson (1996), is that the reinventing government story line suffers from “wrong-problems problem solving,” which is when a government seeks to avoid making a difficult political choice by grasping onto a management fad. “Through better management, can we solve the health care issue?” asks Frederickson.

Probably not. It is politically tempting to try because workable solutions to meeting the health care needs of citizens are terribly expensive. To some extent, the reinventing government movement gives comfort to elected officials who are attempting to engage in wrong-problems problem strategies. (Frederickson 1996, 268)

Put aside the question of whether Osborne and Gaebler’s (1993) proposed management reforms hold up to scrutiny – which has been the focus of many New Normativist critiques. For present purposes the more useful question is whether *any* management-focused reform initiative can adequately respond to the governance gaps spawned by accelerating social change. In many cases, the answer may very well be no.

I suspect that Osborne and Gaebler had a solid-enough apprehension of contemporary reality that they chose to engage in a rhetorical strategy of silence on contentious issues such as the relationship between politics and administration. Ditto for the Clinton administration when it embraced the reinventing government story line. This created enough theoretical contradictions to infuriate what Michael Harmon (2003) calls principled moralists. For example, Daniel Williams (2000) argues that the reinvention story line is riddled with contradictory advice such as that government should increase its efficiency by cultivating competition, but it should also reduce duplication. “This sort of

ambiguity renders their advice fundamentally inapplicable,” concludes Williams with an either-or certitude all too common within the New Normativism (D. Williams 2000, 532).

If this is so, then how did reinventing government become one of the most popular story lines of recent decades? Williams dismissively points to a key reason: The reinventing government story line allows readers with varying normative commitments to “justify contradictory action based upon selective reading” (2000, 532). Perhaps, but this begs the larger question: Is not Osborne and Gaebler’s “fuzzy logic” a normal manifestation of pop culture during an era of proliferating structural traps? Indeed, does not the political need for fuzzy logic go a long way toward explaining why the poll-driven Clinton administration relied entirely on reinventing government practitioners when developing its National Performance Review rather than tapping into the expertise of public administration scholars (Kettl 2002, 21)? Theoretical precision and consistency, particularly in the hands of principled moralists committed to either-or thinking, can be a mortal danger to a political coalition held together by carefully contoured discursive silences on key points of potential disagreement.

The subtext of scholarly criticisms of reinventing government is that bureaucratic reform has become too complicated for practitioners to figure out by themselves. In a sense this may be true due to accelerating societal complexity. Nevertheless, this critique sounds like the pot calling the kettle black. Wrong-problems problem solving may be more subtle among academics, but it appears to be a popular rhetorical strategy.

Kettl (2002) points out constitutional-level governance gaps but focuses on fairly instrumental administrative prescriptions. Fox and Miller flatly declare American democracy to be broken but then present what they cheerfully acknowledge is an

incrementalist reform agenda for public administration (1995, 73). Even Korten's call for "radical departures from commonly accepted approaches, concepts, and methods of operation" focused on public managers working "*within* the system" (2001a, 494, original italics) – an argument he disavowed after leaving the international development field to become an anti-globalization activist (2001b).

The incidence of wrong-problems problem solving among public administration practitioners and scholars can only escalate in a risk society, where the complexity of emergent hazards such as global warming could far surpass the most intransigent problems of first modernity, e.g., the U.S.'s troubled healthcare system.

Field still embraces the politics-technoscience dichotomy

Public administration's tendency toward a soft technological determinism is a manifestation of a politics-technoscience dichotomy. As discussed in Chapter IV, the dichotomy amounts to a "separate-and-unequal" doctrine that distinguishes the political sphere from the technoscientific, and gives the latter primary (if generally invisible) power in determining a polity's direction. This represents the institutionalization of technological somnambulism. The dominance of technoscience is rooted in the assumption that its largely unfettered development is central to the Good Life. This results in a political economy dedicated to legitimizing and normalizing technoscientific development in order to avoid killing the golden goose of progress.

Although fealty to the politics-technoscience dichotomy has eroded in recent decades, I contend that it still represents one of the four pillars of administrative theory, along with a politics-administration dichotomy, hierarchical control, and scientific

management.⁷ Indeed, I would go as far as to argue that the politics-technoscience dichotomy should replace the politics-administration dichotomy as a primary focus of debate because technology's hazard footprints have grown large enough to endanger the stability of civilization. In other words, the technoscientific sphere is threatening to annihilate the political sphere. Public administration plays a mediating role in this struggle because of its regulatory authority, access to technoscientific knowledge, and discretionary consumptive power. If the field is to act in the public interest it must become more reflexive about its assumptions regarding technoscientific development.

The field's discursive center appears to assume that technoscientific development is a given, much like the weather: something to be predicted, accepted, and prepared for rather than stopped or significantly redirected. It does not matter whether a scholar happily or sadly accepts this preactivist story line. Either way, it manifests in the explicit or implicit assumption that one's preferred system of governance can be achieved with little, if any, normative consideration of its level and type of technoscientific dependence.

Ackoff's (1974) typology can be used to distinguish how each of the three schools approaches the future of politics vis a vis technoscientific development.

Inactivists — Conservative New Normativists approach *political* change with an inactivist's caution, but they display little skepticism toward *technoscientific* development. This implies a preactivist approach toward technoscience, where it cannot be stopped but can be mitigated, albeit with minimal political interference.

Reactivists — One can find elements of political reactivism among the New Normativism's left wing. This is most obvious within the citizen engagement subfield, e.g., the prominence of communitarian ideals rooted in ancient Athens, the progressive

era, or post-WWII statist regimes. Political reactivists, like inactivists, tend to say little about technoscientific revolution, which suggests that they gravitate toward the preactivist camp of treating technoscientific change much like the weather.

Preactivists — This category is most reflective of mainstream public administration, because it is incrementalist, pragmatic, and relatively instrumental. Moderate New Normativists and most New Theorists would appear to be preactivists regarding both politics and technoscientific development. In other words, they tend to be the most consistent in how they approach each of those realms.

Interactivists – All three schools have political interactivists, but only a few of them stake out interactivist positions on technoscientific development. It is unclear whether those who are silent on the latter are closeted technoscientific interactivists, or gravitate toward preactivism, reactivism, or inactivism.⁸

In short, despite the field's diversity in political visions of the future, a preactivist approach to technoscientific development appears to predominate. This can inhibit the closing of governance gaps during a time of revolutionary technoscientific change.

INDUSTRIAL ECOLOGY MODEL AND OVERCONSUMPTION

As discussed in Chapter IV, the industrial ecology model assumes that if environmental exploitation creates side effects harmful to humans, society can develop the technoscientific know-how to avoid or mitigate hazards with only minor or transitory impacts on our personal, institutional and societal core values, power balances, and consumptive practices. By the same token, environmental protection is seen primarily as

a technical, management, and/or an economic problem to be relegated to specialists operating in the relative privacy of their scholarly or practitioner subfields.

Whether intended or not by its proponents, in a risk society the industrial ecology model legitimizes and normalizes the colonization of future generations, less powerful nations, and the biosphere. While presented as pragmatic and incrementalist, policies developed within this framework can result in backdoor revolutions, e.g., a go-slow response to global warming that redraws climatic zones and the normative underpinnings of democracy. So while the industrial ecology model's vision of the future may be painted in benign preactivist colors, its outcomes are insidiously interactivist.

The industrial ecology model operates on a spectrum. A strict adherent would be fully committed to contempocentrism, anthropocentrism, rationalism, giantism, and lococentrism; a staunch opponent of the model would reject each core value. However, more typical would be a "soft" adherent who might embrace three or four core values with varying degrees of fervor. Note that rhetoric may diverge from consumptive practices. A postmodernist might reject each core value because it represents a metanarrative. However, in his daily consumptive practices the scholar might engage in addictive overconsumption that is flagrantly contempocentric, anthropocentric, and lococentric. In a consumptive state such contradictions take on heightened importance.

In recent years rationalism, giantism, and lococentrism have been questioned to varying degrees within the field, but these represent low-hanging fruit. Lamont Hempel (1996) argues that contempocentrism and anthropocentrism are the key values that perpetuate environmental destruction, yet both have rarely been discussed, let alone

challenged in ways that link theory to administrative practices (e.g., Luton 2001a). Ralph Hummel neatly sums up the field's hubris:

(W)here once it was our task to adjust our approach to fit nature if we wanted to discover and acquire its power, we now have nature in our power. In physics and in biology, our control over nuclear and genetic composition can, and does, make nature over into anything we want it to be. (Hummel 1996, 45)

From anthropocentric and contempocentric perspectives, the key question is how much can we “otherize” nature and future generations before jeopardizing our own life-support system? Risk society theory suggests that humanity may have already crossed that threshold. The field has put little stock in such worries aside from a few nattering nabobs of negativity (e.g., Caldwell 2000a, 2000b; Korten 2001a).

Contempocentrism is not always a product of generational greed – it can also result from revolution blindness. As a case in point, New Normativists may criticize New Theorists for their instrumentalism, but their past-focused story lines can often translate into similar *outcomes* when applied to global warming. For example, New Normativists who do not champion intergenerational equity have three choices:

- 1) Hope that global warming is not a system-threatening problem;
- 2) Assume that technoscientific advances will save the day without major changes in societal values, power relationships, and consumptive practices; or
- 3) Accept the emergence of a two-tiered system of citizenship that allows the current generation to impose significant and irreversible harm onto future generations with only token efforts to consider their interests.

Hazards delimited in time pose particularly vexing theoretical and practical challenges for the citizen engagement subfield. How can one facilitate deliberative exercises that

give standing to the interests of future generations in light of deep structural traps among *current* citizens? Can stakeholder groups adequately speak for those not yet born, or might new roles need to be created, e.g., future-generation advocates?⁹ These kinds of questions have not yet captured the attention of the citizen engagement subfield, perhaps because they are assumed to be the purview of the environmental policy subfield – a discipline-centric assumption that is obsolete in a risk society and consumptive state.

Overconsumption, commoditization, and consumptive citizenship

As discussed in Chapter V, overconsumption is an aggregate-level concept that represents a level or type of consumption that undermines the life-support system for humans. Overconsumptive behavior that ultimately results in catastrophe may initially appear to be quite benign – at least when viewed through the lenses of the politics-technoscience dichotomy and the industrial ecology model. A failure to apprehend the dangers of overconsumption is most likely with hazards that are relatively invisible to laypersons without the mediation of technoscientific specialists.

The environmental policy subfield would be most likely to address overconsumption, but it has not been a major focus. For example, a number of chapters in *Environmental Governance Reconsidered* (Durant, Fiorino and O’Leary 2004) discuss the relationship between consumption and environmental hazards (Paehlke 2004; Bryner 2004), but this is not a major theme, and Durant (2004) quickly dispenses with this key aspect of the genetically modified food debate. Why the relative lack of attention?

To bring to light the important message (we can’t all continue to exploit and consume with apparent unending abandon) is to draw into question the basic foundations upon which the consumption economy is built. The threat that we will stop “behaving” in ways that are needed to keep the

systems flourishing must remain in the shadow. (Box and King 2000, 755)

This may help explain why Korten's groundbreaking 1981 *PAR* essay has received very little theoretical follow-up by public administration scholars. He points to overconsumption as a central problem of a postindustrial society. This unmask a number of important questions, such as should – or even can – public administration attempt to help society transcend a false consciousness with regards to an economy based upon overconsumption? This is a dynamic whereby the majority is

constantly bombarded with intensive advertising propaganda to show how well off they are and how fortunate they are to have all the things they have. They are trained to accent accelerating consumption as the inevitable way of their lives. And they are admonished at all times not to mess around with the horn of plenty because such actions will obliterate their jobs and their consumption potential. This is not a context from which militant masses, bent upon reform, are likely to arise. (Scott and Hart 1979, 219)

Should attacking overconsumption become a central goal of public administration even if it requires rule-altering action in the face of significant public apathy or resistance? Or does the demise of the reformist New Public Administration in the 1980s suggest that the field's political economy is such that system-affirming theory and practice will invariably prevail in the long run, e.g., through the preactivist permutations of the New Theory?

The relative lack of attention devoted to overconsumption is significantly rooted in the story line that almost any problem it causes can be solved through technoscientific advancements. For those problems that cannot be solved in this manner, it is considered ethically acceptable to externalize their dangers onto less powerful nations, future generations, and the biosphere. Colonialism is largely masked beneath layers of professional and cultural norms. One of the most important conceptual doors that hide

the field's acceptance – however grudging – of colonialism is its radical separation of consumptive behavior and citizenship. These linkages have not received much attention, particularly within the context of consumptionism.

Although the citizen engagement subfield has focused largely on discursive practices, some scholars have begun to address consumptive aspects of citizenship. Stivers (2000a) notes that the rise of public administration in the early 20th Century corresponded with redefining as public a variety of consumption-related activities that had been considered private, such as garbage disposal, regulation of employment terms, and welfare. This is an important point because it displays government's role in creating the infrastructure necessary for the consumptionism of industrial society to flourish.

THE FIRST MODERNIST PARADIGM

Some scholars have argued that the field has fragmented to such a degree that it no longer has a prevailing orthodoxy (Uveges and Keller 1998). This may be the case when viewed through the lens of first modernity. But another picture emerges when analyzing public administration within the context of an emergent risk society and consumptive state. Even relatively marginal story lines such as feminism, Discourse Theory, and critical theory operate primarily within an orthodoxy – what I'll refer to as the *first modernist paradigm*. This paradigm stretches back to the dawn of self-aware American public administration in the late 19th Century, and encompasses each of the five eras discussed at the beginning of this chapter.

The postindustrial era has been ascendant since the mid-1990s. A major characteristic of this era has been the presence of an unusual number of interactivists. Of

concern here are the paradigmatic confines that even these, more rule-altering actors abide by (however unconsciously or ambivalently). My contention is that they tend to prioritize issues that fit most of the nine industrial hazard characteristics. In contrast, issues that fit all nine risk society hazard characteristics have been ignored, downplayed, or largely stripped of their normative significance. This deprivileging of risk society hazards is rooted in continued – if often masked – normative commitments to the major elements of a politics-technoscience dichotomy, the industrial ecology model, and overconsumption. However functional these normative commitments may have been during first modernity, in second modernity they support the colonialist redistribution of power between nations, generations, and species.

It is understandable why the first modernist paradigm persists. Fox and Miller's description of public administration orthodoxy may be narrower than mine, but they brilliantly sum up its pervasiveness.

Despite its death and regardless of the eager academic pallbearers, the spirit of orthodoxy hovers over the study of public administration, insinuating itself in all theories of governance and in every actual public agency. Orthodoxy now has the status of legitimizing myth. It is the background assumption of all mainstream reform efforts. The inertial force of orthodoxy is its legitimacy, but this legitimacy derives from a nostalgia that craves certainty and structure. (Fox and Miller 1995, 3-4)

Much like water may be invisible to fish, the normative underpinnings of the first modernist paradigm are still so integral to the American political economy that they are heavily masked. Indeed, *we* wear the mask (Adams and Balfour 2009).

The first modernist paradigm has eroded in recent decades. The once-heady optimism about science, the administrative state, and commoditization have turned ambivalent, and concerns about environmental destruction have become more prominent.

Alas, ambivalence and concern are a long way from a rejection of regime values.

Technological somnambulism lives on in insidious ways, such as by treating global warming as largely a technical problem to be consigned to the environmental policy subfield. The perpetuation of the first modernist paradigm is a recipe for the proliferation of a high-tech, Wild West of administrative moral inversions (Adams and Balfour 2009) masquerading as fashionable quick techno-fixes for the hazards of a risk society.

One can point to the beginnings of a paradigm shift via a Follettian integration of the most promising qualities of public administration's three schools of thought:

New Theory — The New Public Management's focus on outcomes – which *can* be an effective proxy for closing governance gaps – is an important story line when social change accelerates and rapid institutional adaptation is needed. Whatever the weaknesses of reform efforts steeped in private-sector values, they are driven by an often quite reasonable argument that the public sector has become hidebound, complacent, and self-absorbed. Precisely because the New Public Management tends to eschew normative theory in favor of practical experimentation, this movement may – paradoxically – have a great deal to teach the other two schools about praxis. In addition, efforts by the New Theory's empirical-analytical wing to improve the quality of research are desperately needed to unmask invisible hazards, despite a pedantic streak that can place too much emphasis on approaching scientific certainty rather than acting before harm may result.

New Normativism — This school's focus on cultivating normative reflexivity is pivotal to seeing the dangers of atheoretical action. Although many New Normativists are too steeped in past-focused political philosophy to give technoscientific development

adequate credence as a revolutionary force, their emphasis on championing democratic values is an important counterweight to the New Theory's instrumentalism and the Discourse Movement's rejection of metanarratives. The New Normativist wing of the citizen engagement subfield could become a laboratory of promising approaches for transcending the structural traps of second modernity if it more explicitly addressed contempocentrism and anthropocentrism.

Discourse Movement — More than any other school of thought, this one energetically challenges the zombie categories of first modernity. For example, Michael Harmon's (1995) pragmatist conception of paradoxes is a valuable bridge to both-and thinking. Farmer's (1995) concept of anti-administration is an acid strong enough to burn away the hubris of administrative state protectionism. McSwite's (1997) focus on theory grounded in psychology, and Fox and Miller's (1995) discussion of hyperreality are crucial tools for sifting through the fluid economic and symbolic logics of risk society and consumptive state phenomena. Perhaps most importantly, the Discourse Movement's questioning of metanarratives can be a valuable reflexive exercise during an era when society may be changing much more quickly than the field's theory.

No school has a monopoly on rationality (however one might choose to define it). If one is a Follettian optimist, each school has something to teach the others. Or, if one is a Madisonian pessimist, each school can be seen as a discursive counterweight to the excesses of the others. Whichever direction one gravitates to, I contend that the continuing presence of either-or theorizing in each school of thought is one of the biggest roadblocks to adequately addressing emergent hazards, because that kind of thinking lacks the subtlety to deal with contemporary complexities and paradoxes.

Even when I am wearing my Follettian optimist hat I do not see how a theoretical synthesis grounded in the first modernist paradigm can adequately address the 21st Century's great governance gaps. This mindset is too short-term, fragmented, and reactive to apprehend major risk society hazards – and it translates into institutional practices that may be ineffective or even downright dangerous.

As a case in point, vested interests have been quite effective at using the obsolete aspects of the U.S. constitution (e.g., its contempocentrism and anthropocentrism) as legal weapons to undercut statutes and rulemaking regarding global warming. This is why protecting the rights of future generations and other species may ultimately require constitutional attention (Orr 2004a). Alas, public administration has yet to adequately engage the managerial aspects of transcending consumptive state colonialism, let alone its constitutional implications. This is unfortunate, because it is no longer possible for the field to present itself as a credible defender of democratic rights without unmasking its normative commitments regarding hazards delimited in time and space.

Professional neotribalism results in learning disabilities – and ecocide?

Like Jeeves the butler, public administration seems to be waiting for someone to tell it what to do next. This inertia is reinforced by a professional neotribalism. For example, all too many public facilities managers still act as though it is entirely outside their legal, institutional, and professional boundaries to pioneer the usage of renewable energy sources in their operations. If emerging technologies cost more, are not required by law, and have not been given much credence in their immediate professional circles, why take the consumptive risk? According to this industrial logic grounded in the radical

specialization of knowledge and labor, the pioneering of renewable energy sources is the purview of *environmental* agencies and academic disciplines. The problem here is that experimentation throughout the public sector may be essential to quickly transitioning the U.S. out of a fossil fuel political economy. The uneven leadership on this issue by elected leaders – and scholars – means public servants cannot sit around waiting for the fire alarm bell to ring. A more proactive approach is needed.

Public administration scholarship's trained incapacity is so debilitating that it desperately needs a transfusion of new ideas from outside the field. Unfortunately, one factor working against that prospect is discipline-centrism fueled by accelerating knowledge production. Political science is a cautionary example. This discipline was once "a monistic world of commonality" (Fox and Miller 1995, 61), but now is an umbrella category that includes a balkanized assortment of specialties and subspecialties.

Members of different specialties do not read the same material, keep up with the same journals, or get excited by the same new landmark book. Indeed, it is not wise to be a generalist. One can have intense and detailed knowledge of no more than two sub-subfields to which one speaks and in which one is published. (Fox and Miller 1995, 62)

The economic logic of scholarship discourages interdisciplinary forays at a time when social complexity requires "synthesizers" (E. Wilson 1998). I would argue that one does not have to strive for the holy grail of epistemological unity within the social sciences to recognize the dangers of over-compartmentalizing knowledge (Raadschelders 2000).

As an applied field, public administration may be less compartmentalized than traditional disciplines such as political science. In recent years, public administration scholars have ventured into realms as diverse as psychology, linguistics, and chaos theory. Nevertheless, the field of environmental studies has much more aggressively

confronted the politics-technoscience dichotomy, the industrial ecology model, and overconsumption – yet its literature has generated little attention within public administration. This may be partly explained by the relative newness of environmental studies, but even postmodernist theory – a younger scholarly movement – has arguably received more attention in public administration’s normative journals.¹⁰

This does not fully explain the lack of attention to Beck. My sense is that his brand of German sociology may be too normatively stout for American public administration tastes. A major reason why is that he defies standard categorizations. Risk society theory cannot be ghettoized as environmental studies because of its analytical breadth. In addition, Beck’s analysis is grounded in critical theory but blazes some new trails, e.g., by downgrading the utility of a class analysis. By the same token, he infuses his story line with contingency by drawing upon postmodernist thinking but stopping well short of its rejection of metanarratives. I would argue that the secret to the freshness of Beck’s scholarship, which might be crudely categorized as green critical theory, is his unusual ability to draw linkages between often warring theoretical schools of thought. Alas, this open-source theorizing seems to have worked against him in American public administration, where scholars tend to operate within neotribal enclaves enforced by varying degrees of discipline-centrism.

As a case in point, scholars who have shown an interest in environmental sustainability have tended to steer clear of a critical analysis of economic and political power dynamics (Catron 1996; Nelson and Weschler 1996; Leuenberger and Bartle 2009). One can obviously find power analyses by more traditional critical theorists (Adams and Balfour 2009; Zanetti and Carr 1997), but they have paid little attention to

how environmental crises may fundamentally challenge political and economic arrangements. Exceptions to these polarities are relatively rare, e.g., in the works of Ventriss (2000), Jong Jun (2002), Mary Timney (2001) and David Korten (2001a), and Emilian Geczi (2007), who may come the closest to embracing a green critical theory in the same ballpark as Beck's.

Discipline-centrism is hardly a new issue for public administration. Forty years ago Waldo (1965) criticized his colleagues for often being "laggards" in addressing nascent issues and new approaches. Since then the field has become considerably more cosmopolitan, but it still does not seem to be very quick in absorbing new ideas:

- Public administration's first feminist book was not published until 1993, two decades after this movement began making waves in American society.
- Postmodernist thought received little attention until the mid-1990s, roughly a decade after it had generated significant visibility in other academic fields.
- The biggest trend of the 1990s, the reinventing government movement, was catalyzed by consultants and politicians rather than academics.

This same pattern is playing out with the dynamics of a risk society and consumptive state. The field has been slow to address the governance gaps and structural traps resulting from accelerating social change. This may be partially explained by the field's Jeeves-like culture, but even the prescriptions of radical theorists have tended to include significant discursive silences and contradictions. Story lines that use change-oriented metaphors have often been primarily grounded in preactivist technoscientific visions of the future that suggest varying degrees of revolution blindness.

Might the field's slowness in addressing global warming represent a case of ecocide? Those who dismiss this might remember that the field can be ecocidal without opposing measures to stop global warming. Theoretical silence and administrative inertia can function as ecocidal acts if they impede societal responses to the hazard.

An analogy would be that of the parent whose toddler has just run into the street as a speeding car approaches. We would commonly consider it negligence if a parent chose to finish a crossword puzzle instead of rushing to save the child. However, the relative invisibility of risk society hazards allows knowledge elites to bury their negligence beneath an intellectual landfill of story lines that serve to mask their ecocidal punch line: "That's outside of my specialization."

If ecocide is too alien to public administration's discursive core to be taken seriously, then Peter Senge's (1990) learning organization model might offer a more normatively neutral lens with which to view the scholarly community. The conceptual limitations of contemporary public administration thought could be viewed as a reflection of the field's "learning disabilities."

It is no accident that most organizations learn poorly. The way they are designed and managed, the way people's jobs are defined, and, most importantly, the way we have all been taught to think and interact (not only in organizations but more broadly) create fundamental learning disabilities. These disabilities operate despite the best efforts of bright, committed people. (Senge 1990, 18)

The lesson here is that public administration's theoretical difficulties in responding to a risk society and a consumptive state are inextricably linked to the field's structure and culture. A university built around the modernist grid of academic disciplines may have difficulty addressing problems that span multiple disciplines (Beck 1992a). An academic political economy that encourages a radical separation between theory and practice may

lead to grand scholarly schemes that cause harm in the “real world” if taken seriously (Orr 1992). A scholarly community built around “talking heads” rationalistic discourse may fail to recognize how the psychological issues of participants can undercut their ability to apprehend new ideas in order to engage in civil problem solving (Peck 1993).

If public administration education amounts to more than a vacuous credentialing process, then is it adequately preparing students to help close the great governance gaps of the 21st Century? Despite some promising signs, I am largely pessimistic. Scholarly story lines such as reinventing, refounding, conserving, and postmodernizing do not appear to be up to the task of adequately addressing a risk society and consumptive state. Indeed, it is possible that social complexity has already shot well past the learning capacity of the field’s first modernist orthodoxy. If this is so, then where might one find more relevant story lines?

CHAPTER X

THE SUSTAINABILITY MOVEMENT: AN OVERVIEW

The sustainability movement may have a better chance than first modernist orthodoxy to address the challenges of a world risk society and consumptive state. Indeed, because this movement has at least partially transcended the politics-technoscience dichotomy, the industrial ecology model and overconsumption, sustainability has the *potential* to lead the most significant transformation of American public administration in a century. This chapter sketches sustainability's major themes.

THREE CHARACTERISTICS OF SUSTAINABILITY

In academia the sustainability movement primarily operates through the field of environmental studies, but in recent years it has inched into the discursive margins of social sciences such as sociology and public administration. Like the reinventing government movement, sustainability was born in the practitioner realm, so its story lines do not have the analytical precision of those developed within a theoretical test tube. As a case in point, J. Holmberg and R. Sandbrook (1992) counted more than 70 definitions of the term sustainable development. Variations reflect both semantic quibbling as well

as the politically contested nature of its goals (Elliott 1999). Robert C. Paehlke sketches the divergent normative underpinnings of sustainability story lines:

Conservation advocates often are most concerned with the sustainability of nature. For others, the meaning of sustainability is bound up with preserving human health and well-being, or – most broadly – “quality of life.” For still others, sustainability is primarily about sustaining resources to fuel industrial society as we know it. Almost all individuals, meanwhile, are concerned about the sustainability of our collective (and, of course, thereby perhaps their own personal) prosperity. (Paehlke 2004, 35)

The sustainability movement has roots in environmental activism, so the two overlap in their story lines. Nevertheless, the term sustainable development is part of a critique of “‘first generation’ approaches to environmental governance,” which are steeped in the regulatory regimes of an administrative state (Durant, Fiorino, and O’Leary 2004, xiii). For example, a controversial report, *The Death of Environmentalism: Global Warming Politics in a Post-Environmental World*, declares that “modern environmentalism, with all of its unexamined assumptions, outdated concepts and exhausted strategies, must die so that something new can live” (Shellenberger and Nordhaus 2004, 10). The report’s authors, Michael Shellenberger and Ted Nordhaus, offer an alternative vision for the environmental movement that is significantly built upon the major elements of the sustainability story line discussed below.

The sweep of the above critique hints at how mainstream environmentalism and sustainability diverge in some important respects, e.g., stronger forms of sustainability are arguably much more paradigm challenging. Yet the concept of sustainability is hardly the “province of radical environmentalists,” but by the mid-1990s became “an establishmentarian ‘idea in good currency’” embraced by international agreements, the Clinton administration, and some corporate leaders (Catron 1996, 3). Alan Holland

argues that the concept has “been assimilated with remarkable speed” within the public policy community, particularly at the United Nations (2003, 391).

This has occurred through elaborate mutual cooptation that has resulted in “muddled, and even self-contradictory” story lines that, according to some critics, have succumbed to “managerial aspirations” or perpetuate “the very same values and assumptions as those it purports to challenge” (Holland 2003, 392). This illustrates how the sustainability movement is a loose discourse coalition. Generalizations may be problematic, but I would argue that for present purposes they can be analytically useful.

The area where the sustainability movement overlaps most heavily with that of public administration’s first modernist orthodoxy is its frequent emphasis on stakeholder-based problem-solving models. Sustainability advocates tend to distance themselves from command-and-control environmental regulation, and adversarial relationships between government and key stakeholders (e.g., Weschler 1996; Fiorino 2001, 2004; Burke 2007; Geczi 2007; Leuenberger and Wakin 2007). This attitude is similar to that found in the citizen engagement subfield, but it operates within a different context.

The sustainability movement generally embraces long-term, systemic, and proactive approaches toward managing social change. This contrasts with the generally short-term, fragmented, and reactive approaches to policymaking and implementation of public administration’s first modernist orthodoxy as well as mainstream environmentalism.¹ Since I have already discussed the public administration literature in Chapter IX, the analysis below focuses on comparing the sustainability movement with mainstream environmentalism.

Characteristic 1: Long-term orientation

Sustainable development “is understood as development that sustains human progress into the distant future” (Holland 2003, 391). A key aspect of sustainability is to expand the temporal horizons of public policy decisions so they encompass the increased scope of contemporary hazards. Stewart Brand argues that there are two other important reasons for thinking longer term:

- It is a necessary antidote to the acceleration of technoscientific development, whereby “ever-hastier decisions and actions” are being taken that “do not respond to our long-term understanding”;
- The world’s population is growing to the extent that the “greatest good for the greatest number” now requires paying heightened attention to the rights of the not yet born, since they represent a silent majority that will “outnumber the living” (Brand 1999, 8).

What does “long term” mean? A number of governments around the world use 20-25 year planning horizons (Doppelt 2003, 41-42), but Brand (1999) looks farther down the road. He is helping to develop a self-powered clock designed to keep perfect time for 10,000 years. A goal of this clock and an accompanying library is to help people transcend contempocentrism on a grand scale.²

A less esoteric manifestation of long-term thinking is a policy commitment to intergenerational equity. The term sustainable development first gained prominence in the so-called *Brundtland Report*, which defined sustainable development as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development 1987, 8). Dennis

Pirages argues that this story line represented a dramatic departure from the development regimes of the late 1980s because it “focused on meeting human needs rather than wants” (transcending overconsumption); and it “officially abandoned the assumption, championed historically by liberal economists, that successive generations would naturally be better off than their predecessors” (2003, 57).

The *precautionary principle* is also rooted in intergenerational equity because it applies a “better-safe-than-sorry” approach to technoscientific development that may have harmful long-term side effects (Raffensperger and Tickner 1999; O’Brien 2000; Harremoes et al. 2002). This essentially reverses the politics-technoscience dichotomy’s innocent-until-proven-guilty mindset.

Sustainability’s long-range focus could be viewed as a response to inside-the-beltway environmental policy discourse that operates within electoral and legislative cycles. “The environmental movement’s technical policy orientation has created a kind of myopia,” argue Shellenberger and Nordhaus. “Almost every environmental leader we interviewed is focused on short-term policy work, not long-term strategies” (2004, 25).

Characteristic 2: Whole-systems orientation

Instead of dicing policy issues into distinct areas, sustainability advocates see them as part of an ecosystem whereby “all parts are interconnected so that damage or loss to one part of the system affects the survival of all other parts” (Timney 2001, 34). This translates into the contention that environmental protection, economic development, and social equity are inexorably interrelated. When linked to collaborative stakeholder-based

problem solving, whole-systems thinking is intended to create “win-win” policies (Roseland 1998; Prugh, Costanza, and Daly 2000).

Jean Mercier (1994) suggests that the sustainability movement (or what he alternately calls the ecology movement) can be mistakenly conflated with mainstream environmentalism, which in recent decades has focused on specific environmental hazards in relative isolation to their social and economic implications. This embrace of industrialism’s fragmented approach to problem solving required mainstream environmentalism to “forget” the more holistic mindset of Sierra Club founder John Muir, who famously argued, “When we try to pick out anything by itself, we find it hitched to everything else in the Universe” (in Shellenberger and Nordhaus 2004, 9).

Shellenberger and Nordhaus question why a fragmented approach to public policy is appropriate for the increasingly complex problems of the 21st Century.

Why, for instance, is a *human*-made phenomenon like global warming – which may kill hundreds of millions of *human beings* over the next century – considered “environmental”? Why are poverty and war not considered environmental problems while global warming is? What are the implications of framing global warming as an *environmental* problem – and handing off the responsibility for dealing with it to “environmentalists”? (Shellenberger and Nordhaus 2004, 12; original italics)

Framing global warming as an environmental problem has institutional repercussions, e.g., it gives environmental groups the leverage to insist that their policy agenda should predominate when attempting to build alliances with labor unions and other stakeholder groups. “The arrogance here is that environmentalists ask not what we can do for non-environmental constituencies but what non-environmental constituencies can do for environmentalists,” argue Shellenberger and Nordhaus. “As a result, while public support for action on global warming is wide it is also frighteningly shallow” (2004, 9).

More broadly, environmentalists can overwhelm the public with their ever-expanding laundry list of individual problems. This approach fails to recognize that the electorate does not consist of “100 million policy wonks eager to digest the bleak news we have to deliver.” To the contrary, it leads to information overload, because most “people wake up in the morning trying to reduce what they have to worry about” (Shellenberger and Nordhaus 2004, 28). In addition, addressing issues one at a time can result in a significant industrial issues backlog as environmental hazards proliferate in response to accelerating technoscientific development.

Sustainability advocates argue that addressing environmental hazards at systemic levels would allow multiple problems to be solved simultaneously. For example, Mark Roseland suggests that achieving sustainability at the local level would require a “simultaneous emphasis on the efficient use of urban space, on minimizing the consumption of essential natural capital, on multiplying social capital.” This is a more complex undertaking than a fragmented approach to public policy making, but Roseland says the resulting synergies are worth the effort, e.g., communities that are cleaner; healthier; less expensive; have greater accessibility and cohesion; and are more self-reliant in energy, food, and economic security (1998, 214).

Characteristic 3: Proactive orientation

The sustainability movement is dominated by proactive strategies for managing social change (Roseland 1998, 4). Advocates generally present a purposive vision for the future, which they argue can better solve problems than by reacting to crises. The

literature is filled with visions as utopian as the World of Tomorrow futuramas of yore, except that they generally attempt to ameliorate the “bads” of a risk society.

Shellenberger and Nordhaus argue that the central failure of environmentalism is it lacks an inspiring vision grounded in clearly articulated values, as embodied in Martin Luther King Jr.’s, “I have a dream” speech. King’s call for racial equality is iconic because a “positive, transformative vision does not just inspire, it also creates the cognitive space for assumptions to be challenged and new ideas to surface. And it helps everyone to get out of their (single) ‘issue’ boxes.” In “the absence of a bold vision and a reconsideration of the problem, environmental leaders are effectively giving the ‘I have a nightmare’ speech” (Shellenberger and Nordhaus 2004, 31). This is particularly apparent in their global warming policy prescriptions, which the authors sarcastically summarize as, “More good news from the environmental community: not only won’t we kill as many jobs as you think, we only want to raise your energy bill a little bit!” (Shellenberger and Nordhaus 2004, 30).

The lack of a cohesive positive vision is rooted in a narrow focus on technocratic remedies, argue Shellenberger and Nordhaus. What is the alternative? They propose a New Apollo Project, which promises to “create three million new energy jobs and free America from foreign oil in 10 years” while reducing U.S. greenhouse gas emissions (2004, 35). Their strategy was to create a story line “that would remind people of the American dream: that we are a can-do people capable of achieving great things when we put our minds to it” (Shellenberger and Nordhaus 2004, 26). The New Apollo Project’s massive investments in renewable energy, transportation infrastructure, and efficiency may have more in common with the Great Society’s “war on poverty” than the

decentralist prescriptions of many sustainability advocates. However, this initiative represents one of the first major attempts to use polling and coalition building to package what is essentially a sustainability agenda with mainstream electoral appeal.

THE GOVERNANCE IMPLICATIONS OF SUSTAINABILITY

A major way that sustainability advocates have attempted to address the systemic causes of problems is to trace them back to their origins. At the micro level, this might result in changing the way a product is designed in order to eliminate the pollution it causes rather than merely reducing the public's exposure to it. "Sustainability focuses on becoming thoroughly good, not less bad" (Doppelt 2003, 53).

Some argue that achieving a society that is genuinely sustainable – rather than less unsustainable – will require significant governance changes (Le Van 2003, 40). For example, the sustainability movement has arguably been more aggressive than mainstream environmentalism and public administration orthodoxy in exploring alternative decision-making processes, such as grassroots ecosystem management (E. Weber 2003), appreciative inquiry (e.g., Cooperrider, Whitney, and Stavros 2003), and civility-building encounter-group processes (Peck 1993). Although postmodernist theory has begun to filter into the sustainability movement (Jacobs 2001; Eckstein and Throgmorton 2003), cultivating a shared vision and achieving outcomes tend to be privileged to a far greater degree than in public administration's Discourse Theory. In addition, sustainability processes are generally distinguished from more traditional strategic planning or T-group exercises by a mixture of interactivism and reactivism that challenges the preactivism common to both mainstream environmentalism and public

administration orthodoxy.

Consider the sustainability movement's focus on long-term thinking. The relative ease with which this has been translated into the radical goal of intergenerational equity illustrates how sustainability advocates have adapted to the revolutionary milieu of a risk society, where major hazards may be permanent and irreversible. At the same time, intergenerational equity is often grounded in the reactivism of Native American philosophy. A popular metaphor is the *seventh generation principle*. This Native American approach to governance considers the impact of a policy option on the welfare of those living up to seven generations in the future. Embedded in this principle is the rejection of industrial society's separation of the past, present, and future.

All around me are my ancestors,
my unborn children.
I am the tear between them
and both sides live.

— Linda Hogan (in Whitt et al. 2003, 5)

In calling for public administration to embrace intergenerational equity, sustainability advocates are effectively asking the field to “remember” indigenous values. By the same token, by challenging the environmental movement to learn from the recent success of the American right, Shellenberger and Nordhaus (2004) essentially suggest that environmentalists remember the more explicitly normative and holistic approaches to political organizing used by progressive-era groups such as the Grange. Indeed, the frequent emphasis on protecting open space, reducing the dominance of the automobile, and reviving an “abiding sense of place” has led some critics to dismiss sustainability as “nostalgia – however exaggerated – for simpler times” (Hempel 1999, 43).

Sustainability is designed to transcend the ‘normal accidents’ of first modernity

The long-term, systemic, and proactive emphasis of the sustainability movement can be seen as a reaction to the limitations of environmental discourse operating within the paradigmatic confines of first modernity, with its tendency toward short-term, fragmented, and reactive problem solving that results in the embrace of quick techno-fixes – which, in turn, are a manifestation of technological somnambulism.

Paul Hawken, Amory Lovins, and Hunter Lovins (1999) offer a classic example of a quick techno-fix gone wrong. In the 1950s, the World Health Organization (WHO) attempted to eliminate malaria from Borneo by spraying DDT. The toxin did get rid of malaria-carrying mosquitoes, but it also set off a chain of unintended consequences, e.g., the DDT-poisoned bugs were eaten by geckoes, which in turn were eaten by cats. The cat population plummeted, thereby allowing typhus- and plague-carrying rats to multiply. WHO ended up having to parachute in 14,000 live cats to bring the rat population back under control (Hawken, Lovins, and Lovins 1999, 285-286).

DDT has since been banned in many parts of the world, but a penchant for the quick techno-fix lives on. For example, a southern California city saw a population explosion of roof rats – which are carriers of the black plague – after the animal control department waged a successful campaign to round up feral cats (LeDuff 2002).

Each of the above examples has relevance to public administration because public health has been a central responsibility of the field. Practitioners likely played meaningful roles in policy development and implementation. Their counterproductive actions did not occur by accident, but were a manifestation of paradigmatic commitments translated into institutional practices. Both examples display linear thinking that

effectively “forgets” circular, cause-and-effect relationships commonly understood in pre-industrial cultures (Orr 2002). Linear thinking translates into the factory model of organization, with its radical specialization of knowledge and labor. The result is a Tower of Babel of public agencies, professions, and scholarly disciplines that have little training and experience in addressing environmental complexities in a holistic fashion.

These “normal accidents” of industrial-age public administration can have far-reaching repercussions. Even though DDT has not been used in most parts of the world for many years, Anne Platt McGinn notes that “it is still one of the most commonly detected pesticides in the milk of nursing mothers. DDT is also one of the ‘dirty dozen’ chemicals included in the 2001 Stockholm Convention on Persistent Organic Pollutants” (2002, 10). Sustainability advocates argue that the use of such dangerous toxins reflects an immature phase of technoscientific development.

The alternative, according to William McDonough and Michael Braungart, is a new industrial revolution where economic activity:

- introduces no hazardous materials into the air, water or soil
- measures prosperity by how much natural capital we can accrue in productive ways
- measures productivity by how many people are gainfully and meaningfully employed
- measures progress by how many buildings have no smokestacks or dangerous effluents
- does not require regulations whose purpose is to stop us from killing ourselves too quickly
- produces nothing that will require future generations to maintain vigilances
- celebrates the abundance of biological and cultural diversity and solar income. (McDonough and Braungart 1998, 92)

These goals represent an attempt to use whole-systems thinking to fully transcend technological somnambulism. The first step toward achieving these goals is to change

the way we think from a linear, “take-make-waste” production model to a circular, “borrow-use-return” approach that mimics the way nature works, e.g., all waste becomes food for other creatures (McDonough and Braungart 2002).

Fragmented and hierarchical structures ill-suited for whole-systems thinking

Does the above story line, which fits the ideal of the precautionary principle, sound hopelessly utopian? It is – at least as long as society’s system of governance continues to be structured like a factory. Doppelt (2003) argues that fragmented and hierarchical structures are ill-suited to engaging in whole-systems problem solving. His proposed alternative – sustainability governance – emphasizes relatively horizontal, nonpatriarchal, and cross-functional structures. Doppelt’s approach dovetails with Roseland’s, who suggests that the environment is not an administrative problem so much as “administration is an environmental problem.” He draws upon Paehlke and Torgerson (1990) to call for a new type of administration that is “non-compartmentalized, open, decentralized, anti-technocratic, and flexible” (Roseland 1998, 188).

Cultivating whole-systems thinking within public administration is not as simple as reconnecting theoretical dots, because the field’s fragmentation may be at least partly a result of American overconsumption. For example, a recent trend at the municipal level has been to co-locate libraries with other public facilities (Fulton and Jackson 1999), but balkanized facilities planning still seems to be the rule in all but the smallest and poorest American communities. Hawken, Lovins, and Lovins (1999) argue that Third World societies can more easily engage in whole-systems thinking partly because they have not forgotten how to be frugal. “Traditional cultures, having more limited means to satisfy

human needs, tend to meet as many needs as possible with as few resources as possible” (Hawken, Lovins, and Lovins 1999, 287). Indeed, the authors laud the Brazilian city of Curitiba for its unusually effective methods of addressing problems endemic to Third World metropolitan areas by rejecting a U.S. development model:

Though starting with the dismal economic profile typical of its region, in nearly three decades the city has achieved measurably higher levels of education, health, human welfare, public safety, democratic participation, political integrity, environmental protection, and community spirit than its neighbors, and some would say than most cities in the United States. It has done so not by instituting a few economic megaprojects but by implementing hundreds of *multi*purpose, cheap, fast, simple, homegrown, people-centered initiatives harnessing market mechanisms, common sense, and local skills. (Hawken, Lovins, and Lovins 1999, 288; original italics)

This raises a provocative question for American public administration during an era of chronic budgetary pressures: Might developing nations offer valuable models for better conceptualizing and organizing basic services? This is a subject I will return to in Chapter XII, but for now I want to point out that the sustainability movement’s critique of American overconsumption is generally grounded in the argument that “development” is superior to “growth.” That is, improving human well being is a more meaningful goal than merely increasing personal income and the gross national product (Daly 1996; Roseland 1998, 4; Prugh, Costanza, and Daly 2000, 32). Edward Abbey (2005) went as far as to argue that “(g)rowth for the sake of growth is the ideology of the cancer cell.”

One way this mindset manifests is a skepticism of commoditization, i.e., questioning whether bigger organizations, fancier technology, and more exotic expertise are the keys to solving contemporary problems. This skepticism opens the door to a much broader range of big questions than are commonly discussed in public administration because they unmask the consumptive underpinnings of society. How

should we feed, house, and clothe ourselves? How should society gain sufficient water, power, and materials? How far should they be transported, how much specialized knowledge is needed to obtain them, and how long should their life cycles be? What is waste and how should it be safely disposed? These questions, which build on the musings of David Orr (2002), have significant implications for all of Dwight Waldo's (1984) problems of political philosophy. For example, a society that depends upon highly commoditized energy sources such as fossil fuels results in a much more centralized political economy than one built around local and renewable energy sources.

Consumptive questions shed light on American regime values

Asking fundamental consumptive questions can shed a different light on American regime values. Orr argues that James Madison's call for a separation of powers was partially rooted in a pre-Malthusian fear of resource scarcity conflicts. Though Hamilton's vision of the U.S. becoming a commercial powerhouse prevailed, Orr argues that an updated version of Jefferson's vision may be more suited to cultivating an environmentally sustainable society in an integrated global political economy:

There is no way to hold a global economy accountable. Consequently, people and local communities are defenseless, without any good way to redress grievances or protect themselves from crises elsewhere. In a global system, a crisis anywhere becomes a crisis everywhere. There is no buffer, no margin, and no recourse when things go bust. It is now possible to see that Jefferson, for all of his ambiguities, was the great realist and Alexander Hamilton the dreamer. Jefferson knew what Hamilton and his followers did not know: that the health of democracy and that of the economy can be maintained only if citizens control the basic circumstances of their lives and livelihood. Jefferson's alternative plan stressed local independence, agrarianism, public accountability, widespread land ownership, and democratic participation. (Orr 2002, 112)

Orr goes on to say that Jefferson argued against any form of “remote tyranny,” be it a distant king or one generation imposing debt onto another one. “Were he alive now, I think that Jefferson would agree that the dead also encumber the living by leaving behind depleted soils, denuded landscapes, hazardous wastes, biotic impoverishment, and changing climate” (Orr 2002, 113-114).

The sustainability movement may not always have such Jeffersonian leanings, but the above comments illustrate a prominent story line that environmental degradation has fundamentally normative political roots. Prugh, Costanza, and Daly (2002) describe sustainability as a Trojan horse for a broad discourse coalition of movements that previously had not been allied. “‘Saving the planet’ really means preserving and fairly allocating the ability of present and future generations to fashion societies that make life worth living” (Prugh, Costanza, and Daly 2002, 8).

This whole-systems thinking does not just attempt to transcend contempocentrism. Another prominent aspect of many sustainability story lines has been to challenge nationalism, which helps perpetuate disparities between rich and poor nations. Doppelt (2003) argues that such disparities may result in heightened political turmoil and environmental degradation that ultimately harm even the wealthiest and most powerful nations. For example, poverty may result in overcutting rainforests that function as the “lungs” of the planet, because they absorb significant quantities of greenhouse gases. Global population growth is often pointed to as a ticking time bomb:

An additional 80-90 million people are joining an already-crowded planet each year. The demand for water, shelter, healthcare, education, food and jobs is consequently rising exponentially. If society does not provide basic goods and services in an equitable manner to the world’s growing population, unrest will grow. When people have nothing, they have nothing to lose. Feelings of despair contribute to the growth of

terrorism. As the 11 September 2001 attacks demonstrate, increased social upheaval will threaten international trade, travel, food security and the world's economic system. It also threatens personal safety and personal liberties. (Doppelt 2003, 50)

Even more moderate conceptions of sustainability are generally rooted in a concern that human activities do not outstrip the capacity of ecological systems to survive (Paehlke 2004). These attempts to “remember” nature can raise important questions about trends in scholarly discourse. Poet and community activist Gary Snyder (1998) offered a colorful critique of theories that present nature as merely a social construction. “I must confess that I’m getting a bit grumpy about the dumb arguments being put forth by high-paid intellectual types” who “are finding it so difficult to handle the rise of ‘nature’ as an intellectually serious territory.” He acknowledged that the concept of “wilderness” is to some degree defined by culture, but argued that a purely constructivist conceptualization reflects a “moral and political shallowness” grounded in anthropocentrism (Snyder 1998, 22). Nature is particularly vulnerable to being “otherized” because, unlike oppressed groups of humans, it cannot write scholarly rebuttals. Furthermore, to the degree that nature is categorized as a human construct, such story lines can be coopted by corporate interests intent on legitimizing and normalizing biospheric destruction.

Ethics, civic voice, and consumptive choices

In the end it comes down to ethical choices, and sustainability advocates can be unusually explicit in pointing to the connection between one's civic voice and consumptive predilections.

For example, Joe Dominguez and Vicki Robin launched the New Road Map Foundation to provide practical assistance for people who seek to downsize their

consumptive patterns so they can pursue more fulfilling lives. In their book, *Your Money or Your Life* (1992), the authors built on the research of psychologists Paul L. Wachtel (1989) and Douglas LaBier (1989/2000) to argue that the holy grail of the industrial age – materialism – has a multitude of negative impacts, both for society and individuals. Most notably, many people get stuck in unfulfilling jobs in order to pay for escapist consumptive habits that put them further in debt – and more beholden to their dreaded job. Instead of “making a living,” many people are “making a dying.”

Aren't we killing ourselves – our health, our relationships, our sense of joy and wonder – for our jobs? We are sacrificing our lives for money – but it's happening so slowly that we barely notice. Graying temples and thickening middles along with dubious signs of progress like a corner office, a private secretary or tenure are the only landmarks of passage of time. Eventually we may have all the comforts and even luxuries we could ever want, but inertia keeps us locked into the nine-to-five pattern. After all, if we didn't work, what would we do with our time? The dreams we had of finding meaning and fulfillment through our jobs have faded into the reality of professional politics, burnout, boredom and intense competition. (Dominguez and Robin 1992, 4)

Dominguez and Robin essentially presented a detox program for those addicted to overconsumption. They did not explicitly encourage readers to switch from being members of the consumer class to the global middle class. However, they offered a handful of exercises designed to help people become more conscious of their relationship with money, and how it limits their livelihood choices.

As a case in point, Dominguez and Robin drew from microeconomics to create a “fulfillment curve.” After reaching a peak – what they call “enough” – additional money leads to declining marginal returns (Dominguez and Robin, 1992, 25). Exercises were presented to help readers build a long-term plan that allows them to become less

economically and symbolically dependent upon a job. This, in turn, might allow more people to take significant career risks, e.g., as change agents.

CONCLUSION

What might public administration theory and practice look like if it adopted the sustainability story lines described above? A long-term focus could result in at least the partial transcendence of contempocentrism and anthropocentrism, the two most problematic elements of the industrial ecology model. Embracing whole-systems thinking could lead to the implosion of dysfunctional disciplinary, professional, and agency barriers to solving complex problems (e.g., global warming would no longer be ghettoized in the environmental policy subfield). Proposed quick techno-fixes would be viewed with much greater wariness, and the normative political implications of technoscientific developments would no longer be substantially filtered out of public administration discourse – a big step forward in transcending the politics-technoscience dichotomy. Unmasking the normative role of overconsumption and commoditization could lead to reconceptualizations of how basic services might be provided. These changes would raise fundamental questions about the structure, culture, and leadership of public service theory and practice.

This is why I contend that the embrace of sustainability *could* result in the field's most significant transformation in a century. I would further argue that a public administration "refounded" on sustainability story lines would have much greater potential than first modernist orthodoxy to help close the major governance gaps of a risk society and consumptive state. Nevertheless, if you only read the field's major journals

and textbooks you would be unfamiliar with sustainability story lines, because they have received only parenthetical attention.

In addition, public administration scholars who have attempted to import sustainability story lines into the field's discourse have often filtered out some of their most paradigm-challenging elements. For example, Daniel Fiorino (2001) and Emilian Geczi discuss more inclusive models of participation by current citizens but steer clear of intergenerational considerations, and Catron (1996) addresses contempocentrism but not anthropocentrism. Paehkle (2004), and Nelson and Weschler (1996) offer more comprehensive analyses of the sustainability literature, but understate its paradigmatic significance. Deniz Zynep Leuenberger and John Bartle (2009) present a practical toolkit of sustainability techniques but downplay their normative subversiveness.

One might assume that public administration's small cadre of sustainability advocates has been employing a Trojan horse rhetorical strategy, where milder versions of sustainability are introduced in order to open the door for more paradigm-challenging elements. This represents a reasonable – and even essential – strategy from the standpoint of the individual scholar. But what impact does this have on the social learning of public administration as a whole? Given the acceleration of social change, might a Trojan horse strategy slow sustainability's assimilation to the point where public administration does not respond quickly and aggressively enough to emergent hazards?

This question takes on greater complexity if one steps away from broad-brush characterizations of sustainability and assesses how this movement's diversity could make it vulnerable to cooptation by public administration's first modernist orthodoxy. This topic is the focus of the next chapter.

CHAPTER XI

SUSTAINABILITY FOR WHOM?

The sustainability movement may have a better chance than first modernist orthodoxy to address the challenges of a consumptive state. However, that potential may not be achieved because it is vulnerable to cooptation.

This chapter's first section employs two typologies to describe sustainability's diversity. The second section discusses how sustainability has been coopted. The third section assesses sustainability's prospects of transforming public administration.

SUSTAINABILITY'S THREE SCHOOLS OF THOUGHT

The lack of a widely agreed upon definition of sustainability may be one of its great political strengths, because it is a "transformative" idea that is "coherent enough to inspire movement in a particular direction" but "sufficiently ambiguous" to suit the dynamics of a specific professional, scholarly, and institutional contexts (Hempel 1999, 44). However, sustainability's multiple meanings also make it more difficult to define who should be considered part of this discourse coalition.

When Daniel Fiorino (2001) invoked sustainability he avoided discussing intergenerational equity and instead focused on stakeholder collaboration and whole-

systems analysis. This omission does not appear to be a result of ignorance, because he cited an impressive range of sustainability literature. Perhaps this is a rhetorical strategy of silence. Fiorino was an EPA manager in the G. W. Bush administration, which adopted contempocentric policies regarding hazards such as global warming.

On the other side of the coin is Michael Shellenberger. Although the story line he and Ted Nordhaus present fits the long-term, holistic and proactive elements of sustainability, the label is eschewed. As a political strategist, Shellenberger's focus is pragmatic: to use the symbols that have the most resonance. He implies that sustainability is widely considered to be interchangeable with environmentalism (Polonsky 2004). This is a problem because polling has shown that a majority of the public supports environmental protection in the abstract, but it is not considered among the top 10 – and often not even among the top 20 – national concerns. Shellenberger argues that “shared achievement” is a more powerful value in American culture.

How do we do something great together? The United States is a culture of aspiration. Winning the gold at the Olympics, putting a man on the moon, freeing our country from dependence on foreign oil – they're all more motivating than “let's keep the planet the way it's been for thousands of years.” That goal actually tends to work against us. (in Polonsky 2005, 9)

In my terms, Shellenberger avoids the sustainability story line because it is not a good Trojan horse, e.g., it challenges contempocentrism and anthropocentrism too directly.

So should Fiorino and Shellenberger be classified as part of the sustainability movement? I do. This chapter's analysis includes those who describe themselves as advocates of sustainability, however they define it. Also included are those who do not self-identify if they advocate most of the key elements of sustainability itemized in Chapter X. This is a loose, “big tent” interpretation of the movement that, for example,

managerial, and/or market-based solutions (Hawken, Lovins, and Lovins 1999; Elkington 2001; McDonough and Braungart 2002). A frequent, if often unspoken, goal is to use technoscientific innovation to avoid politically paralyzing structural traps resulting from attempts to change normative political values. Another often-tacit assumption is optimism that humans have the capacity to manage Earth like a space shuttle.

Technocratic sustainability story lines may be little better than first modernist orthodoxy in challenging the politics-technoscience dichotomy and commoditization, although transcending contempocentrism and overconsumption may receive more attention.

The policy ideas that emerge from this school tend to take one of two directions. An empirical-analytical wing focuses on the development of instrumental policy prescriptions that privilege expert opinion and push to the background normative political considerations. Meanwhile, a technology wing often emphasizes bold ideas, such as injecting unwanted greenhouse gases into the ocean floor. While usually presented as a preactivist means to protect the “American way of life,” proposed technoscientific innovations can have insidiously revolutionary consequences, e.g., through new forms of commoditization – and resulting risks.

This school comes closest to fitting the characteristics of public administration’s New Theory. Fiorino (2001) and R. Durant et al. (2004) might be placed in this category because of their quasi-managerialist and preactivist discussions of sustainability. Much the same could be said of *Sustainable Development for Public Administration* (Leuenberger and Bartle (2009), which arguably is the first textbook that applies sustainable management techniques to American public administration.

Democratic sustainability

Science and technology are not rejected in this school, but it emphasizes that changes in societal value systems – and power relationships – are ultimately more important. Democratic sustainability thinkers challenge to varying degrees the politics-technoscience dichotomy (Roseland 1999; Thornton 2000; Orr 2002; Doppelt 2003). Overconsumption and commoditization are also often questioned (W. Berry 1989; Maniatis 2001; Manno 2002). For example, switching to hydrogen fuel is advocated not as a quick techno-fix that preserves the power of the fossil fuel and auto industries, but as a means of decentralizing the political economy (Rifkin 2002).

Democratic sustainability advocates embrace philosophies ranging from communitarianism to democratic socialism (Eckersley 1992); their view of the future tends to mix interactivism and reactivism even in more pragmatic forms (e.g., Shellenberger and Nordhaus 2004). Story lines may, to some degree, advocate technocratic approaches, but most argue on behalf of significant governance change. A both-and emphasis on fighting lococentrism and giantism is summed up with the slogan, “think globally, act locally.” However, a major debate is between those who emphasize meeting human needs versus protecting the biosphere.

Democratic sustainability dovetails most closely with public administration’s New Normativism. Literature that might be placed in this category includes Catron (1996), Jun and Campodonico (1998) Mercier (1994, 2009), Nelson (1999), Nelson and Weschler (1996, 2001), Reed (2001), Timney (2001), Burke (2007), Geczi (2007), Leuenberger and Wakin (2007), and perhaps E. Weber (2003).

Ecocentric sustainability

The organizing principle of this diverse school is valuing the biosphere “in itself, not merely for human purposes” (Katz 2000, 21). Story lines tend to focus on reducing human impacts on natural systems, e.g., through decommodification and perhaps population reduction (Naess 1989). More radical thinkers significantly or completely reject industrialization, urbanization, technoscientific development and rationalism, and call for a fundamental restructuring of civilization along strict ecological principles (Goldsmith 1998). This is the most strongly reactivist of sustainability’s three schools of thought, and tends to see environmental trends in the most pessimistic light. Preferred forms of governance range from anarchism (Bookchin 1996) to quasi-tribal approaches (e.g., Mander 1991; Neihardt 1982).

Unlike the other two types of sustainability, ecocentrism does not dovetail with any public administration school of thought.² Ecocentrism and the Discourse Movement represent the most rule-altering schools within their respective fields, and a touchstone for both is decentralization. But whereas Discourse Theory eschews metanarratives, ecocentrism generally does the opposite. Particularly in more radical forms, ecocentrism squarely challenges the politics-technoscience dichotomy, the industrial ecology model, and overconsumption. As such, the number of public administration thinkers who might fall into this category is decidedly sparse (e.g., Jacobs 2001; Luton 2001b).

Comparing the three schools to each other and public administration orthodoxy

The breadth of the sustainability movement can be seen in Table XII, which summarizes how the schools address Waldo’s five problems of political philosophy.

TABLE XII. **Philosophical underpinnings of sustainability schools of thought**

<i>Problems of political philosophy</i>	<i>Technocratic</i>	<i>Democratic</i>	<i>Ecocentric</i>
<i>Nature of the Good Life</i>	High-tech, commoditized, corporatist	Balance between human needs and ecological integrity	High ecological integrity; decommoditized, low-impact lifestyles, anti-corporatist
<i>Who should rule</i>	Market and expert driven	Participatory democracy, citizen engagement	Biospheric democracy; reduce/eliminate human domination of nature
<i>Criteria for action</i>	Rationalism, scientism	Sustainability values driving technoscience; precautionary principle	Deep ecology values, eco-spirituality
<i>Separation of powers</i>	Politics-technoscience dichotomy	Madisonian technoscientific checks and balances	From tribal to anarchist structures
<i>Centralization versus decentralization</i>	Globalization, large-scale technologies and organizations	Grassroots action with global focus; bioregional governance	Most radical ideal is pre-industrial levels of decentralization

The farther right one goes on the table, the more interactivist and/or reactivist the story line. For example, the nature of the Good Life in technocratic forms of sustainability is a high-tech, commoditized, and corporatist society. In contrast, ecocentric forms of sustainability lean toward a decommoditized, anti-corporatist, and ecologically low-impact society. Democratic forms of sustainability fall between these two polarities.

In comparison to public administration orthodoxy, all of the sustainability schools are less susceptible to revolution blindness, in no small part because they are infused with relatively high levels of interactivism. Importing sustainability story lines into public

administration could thus be a useful antidote to the field's tendency toward preactivism, particularly regarding technoscientific development.

However, there is a flip side to this advantage. Each school can suffer from flights into abstraction that may have questionable grounding in contemporary reality. Just as the story line of *Natural Capitalism* (Hawken, Lovins, and Lovins 1999) could be dismissed as unachievable, Edward Goldsmith's (1998) ecocentric call for a return to pre-industrial human settlements could be seen as a contemporary version of the ghost dance movement, which vainly predicted an apocalypse that would rid the North America of European interlopers. Meanwhile, Prugh, Costanza, and Daly's (2000) brand of democratic sustainability, which is steeped in a decentralist communitarian vision, may be doomed to failure in an era of globalization and individualization.

SUSTAINABILITY'S SIX MAJOR SPHERES OF ACTION

While useful as a means of analysis, the sustainability movement's three schools do not adequately shed light on its diverse consumptive activities. These are important to consider, because they illustrate different ways consumptive citizenship can manifest as the administrative state is eclipsed by a consumptive state. What follows is summary of sustainability's six major spheres of action. They are listed in the rough order that they arguably deviate from the discursive practices of public administration orthodoxy. In other words, I would hypothesize that the first sphere of action (policy innovation) fits most comfortably within the public administration's dominant discursive practices, while the sixth sphere of action (personal empowerment) is the most marginal.³

Policy innovation — *sustainability as a policy problem*

The focus is on legal-rational means of social change, e.g., via statutory or administrative means. Incrementalist approaches are usually privileged, and normative assumptions tend to be submerged beneath policy goals that can achieve political success.

The U.N. has been the catalyst for a number of international sustainability policy initiatives. One of the products of the 1992 Earth Summit was Agenda 21, a non-binding agreement where governments pledged to adopt sustainable development strategies, e.g., avoiding development that undermines the prospects of future generations; integrating economic, environmental, and social objectives; and broad stakeholder participation (Lafferty and Meadowcroft 2000, 13). In response, the Clinton administration created the Council on Sustainable Development, and the term sustainability was used in connection with the G. W. Bush administration's more market-oriented policy initiatives.

Sustainability initiatives have received the most attention at local and state levels in the U.S. A national leader has been Oregon, which established the goal of achieving "sustainability" within one generation – the year 2025 (Farrell, Mintz, and Zimmerman 2002). This goal was inspired by the city of Portland, e.g., it became the first U.S. local government to adopt a greenhouse gas-reduction plan (City of Portland and Multnomah County 2001). Portland and Seattle are among a handful of cities that have made commitments to adhere the Kyoto Protocol (R. Scheer 2005). Local efforts have often developed in solidarity with international initiatives, e.g., 545 jurisdictions in the U.S. are members of the International Council of Local Environmental Initiatives (ICLEI 2010).

Sustainability indicators — sustainability as a scientific measurement problem

This sphere of action tends to act as a corollary to others (most notably policy innovation and efficient design), but it has developed a cottage industry of groups that focus primarily on developing and publicizing indicators.

The focus is making hazards more visible through science. This is not a new strategy, but sustainability advocates tend to approach indicators with an interactivist rather than a preactivist mindset. One branch of this sphere of action has attempted to redefine industrial-age indicators of societal progress, such as replacing the Gross National Product with the Genuine Progress Indicator, which tracks the environmental and social costs of economic development (Cobb, Glickman, and Cheslog 2001).

A commonality of these initiatives is that they make interdisciplinary connections. For example, Northwest Environment Watch argued that growing consumption of imported fossil fuels reduces economic independence, increases vulnerability to terrorist attacks, and threatens air quality (NEW 2005).

Efficient design — sustainability as an engineering problem

The literature for this sphere of action is filled with dramatic metaphors, such as natural capitalism, ZERI (Zero Emissions Research Initiative), zero waste, and “cradle-to-cradle” production models (Doppelt 2003).

As with the policy innovation sphere of action, the most aggressive U.S. public-sector initiatives have usually come from local and state governments. For example, a California law designed to cut greenhouse gases emitted by automobiles was touted as a model for federal legislation (E. Epstein 2003; Rabe 2002).

Here again U.S. efforts have been influenced by international initiatives, such as the United Nations Environment Program (UNEP). It has urged governments and corporations to achieve “Factor 10” (or 90-percent reductions) in the energy and materials “intensity” of industrial production (Hawken, Lovins, and Lovins 1999, 11-12).

Alternative infrastructure — sustainability as an infrastructure problem

An emphasis is placed on building economic and cultural institutions that challenge prevailing values of capitalism, often with new public, nonprofit, and cooperative ventures. For example, a number of communities have created local currencies designed to fight commoditization (Reiber 2002b). Meanwhile, the state of Oregon created a nonprofit “energy trust” that funnels the proceeds of an electricity tax into projects that conserve energy or develop alternative-energy sources (Reiber 2002a).

Sustainability politics — sustainability as a political reform problem

The focus is on changing the structure of political institutions. The New Apollo Project is an example that works within the two-party system (Shellenberger and Nordhaus 2004). A more radical form is the Green Party of the U.S., whose “10 key values” explicitly challenge all five isms of the industrial ecology model, and place an emphasis on local governance within a global perspective (Green Party of the U.S. 2010). A touchstone of the radical green movement is Ernest Callenbach’s (1975) *Ecotopia*. This novel describes how the Pacific Northwest secedes from the union and creates a new republic that embodies many of the sustainability elements described here.

Personal empowerment — sustainability as a psychological/spiritual problem

The focus is on encouraging individuals to engage in more environmentally benign consumption through personal-growth activities, “voluntary simplicity” (Dominguez and Robin 1992), and therapies that cultivate a “postconventional” morality (Rest et al. 1999). For example, the Northwest Earth Institute (2010) links education in voluntary simplicity, political action, and philosophical explorations of deep ecology. Real Goods (2010) functions as an Amazon.com for products such as solar-powered radios. Most these initiatives explicitly champion “postmaterialist” values that deemphasize concerns about economic security in favor of freedom, self-expression, and quality of life (Abramson and Inglehart 1995).

SUSTAINABILITY AND COOPTATION

The above examples are by no means exhaustive, but they illustrate the sheer breadth of the sustainability movement – which is not apparent in public administration literature. To the degree that sustainability receives any attention at all, it tends to focus on mainstream initiatives that fall within the first three spheres of action.

This disciplinary filtering process – which is a form of cooptation – effectively blinds the field to potentially useful, new ways to help close contemporary governance gaps. Filtering is not just a problem within public administration. More paradigm-challenging story lines are vulnerable to cooptation within the sustainability movement.

Table XIII shows the interactions between sustainability schools of thought and spheres of action. The table illustrates how relatively radical ecocentric ideas can migrate to the political mainstream by being run through the conceptual filters of the

democratic and/or the technocratic sustainability schools. I contend that cooptation is most apparent in the first three spheres of action: policy innovation, sustainability indicators, and efficient design. Each will be discussed below.

TABLE XIII. Interaction between sustainability schools and spheres of action

<i>Spheres of action</i>	<i>Technocratic school</i>	<i>Democratic school</i>	<i>Ecocentric school</i>
<i>Policy Innovation</i>	Growth management, pollution credits	Watershed planning	Bioregional governance; “Ecotopian” succession
<i>Sustainability Indicators</i>	Effective Governance Model	Genuine Progress Indicator, Natural Step	Species- and habitat-loss indicators
<i>Efficient design</i>	Hyper cars; Factor 10 industrial efficiency gains	Pedestrian-centered “urban villages”	Buildings w/ indigenous materials; no-till farming
<i>Sustainability politics</i>	Lobbying mainstream politicians through large, top-down organizations	Green Party; grassroots activist organizations, sust. governance	More radical environmental groups, e.g., Earth First!
<i>Alternative Infrastructure</i>	Hydrogen fuel cells, corporate wind farms, “green” businesses and their lobbies	Public solar utilities; car and food co-ops; farmers’ markets; land trusts	Alternative communities, e.g., communes
<i>Personal Empowerment</i>	Purchase energy-efficient appliances	Voluntary simplicity	Voluntary ultra-simplicity, ecopsychology

Policy innovation

The bioregionalist movement began as an ecocentric attempt to not only redraw political lines so they aligned with ecological boundaries, but also as part of a radical

vision of decentralized government (Dodge 1981). Over the years bioregionalism has been picked up by democratic sustainability advocates, such as through watershed planning with an emphasis on stakeholder-based conflict-resolution processes (Nelson and Weschler 2001). My experience in Washington state is that the latter approach has generally morphed into technocratic sustainability. When integrated into regional growth-management processes, watershed planning has been driven primarily by political insiders and policy experts literate in arcane technical languages.

Nelson and Weschler (2001) acknowledge the limitations of watershed planning in cultivating more sustainable planning. But they also point to benefits, such as “finding common ground between more radical perspectives and institutionalized administrative concerns” (Nelson and Weschler 2001, 22). This can be read as an effort to synthesize ecocentric and technocratic forms of sustainability – a worthy goal, particularly as a short-term tactic. However, Nelson and Weschler tend to avoid the more sharply drawn power analyses that can be found in green variations of critical theory, e.g., Beck’s risk society theory, or Manno’s (2002) critique of commoditization. Given the scope of the literature they cite, this would appear to be a rhetorical strategy of silence.

Growth management regulations designed to contain sprawl through more efficient land-use and transportation planning may be one of the most widely attempted types of sustainable policy innovation (Maznanian and Kraft 1999). These regimes may have revamped land-use planning practices and created significant new employment opportunities for planners, but they can often have more symbolic significance than a substantive impact on development (Warner and Molotch 1995). For example, Washington state’s growth management laws are known as among the roughest in the

nation, yet Northwest Environment Watch (NEW 2005) argued that this state experienced more sprawl than British Columbia. Although less-constrained geography certainly played a role, I would suggest that another major reason may be that Washington's laws have been grounded in a preactivist vision of the future: They accept as a given population-growth estimates based entirely on economic projections rather than the environment's carrying capacity, and focus on mitigating growth's side effects. This is clearly the result of political pragmatism; more ecocentric legislation arguably would not have gained passage in the face of stiff opposition from development interests.

A growing number of municipal comprehensive plans include sustainable development planks. However, a study of 30 plans found that "the explicit inclusion of the concept has no affect on how well plans actually promote sustainability principles" (Berke and Conroy 2000, 30). The authors conclude that

unless the planning field is able to go beyond the symbolic rhetoric to create more holistic plans that help communities move toward sustainability, the critics will be right – sustainable development will be nothing more than another popular fad in planning. Even worse, association with an unworkable concept could detract from the credibility of planners in their attempts to influence future local land use policies. It might also draw down limited staff and fiscal resources of local planning agencies that could have been used for more productive activities. (Berke and Conroy 2000, 30)

This illustrates how technocratic forms of sustainability may be inadequate to the task of reining in the "growth machine" that often controls local governments (Molotch 1976; Logan and Molotch 1987). Berke and Conroy's (2000) findings also hint at how managers can be so hemmed in by external constraints that their work may primarily involve the creation and maintenance of simulations rather than closing governance gaps.

The sustainability movement's marginality in the U.S. seems to have fueled an identity crisis that manifests in either-or debates between self-styled visionaries and pragmatists. A presenting symptom is how to address global warming. Ross Gelbspan insists that activists have been "dismally inadequate to the magnitude of the challenge" (2004, 127). Recall the New Apollo Project mentioned earlier in this chapter; Gelbspan argues that among its weaknesses is the promotion of coal, "the single largest contributor to global warming" (2004, 166). He acknowledges that this compromise represents a pragmatic effort to build an alliance between environmentalists and labor unions, but that it could have been avoided if the initiative had instead included a fund to retrain or buy out coal miners. Gelbspan calls for the phasing out of coal as an energy source.

While agreeing with Gelbspan that mainstream environmental groups are in denial about the depth of the challenge global warming presents, Shellenberger and Nordhaus question the political viability of his prescriptions – and see a larger pattern.

What's frustrating about *Boiling Point* and so many other visionary environmental books –from *Natural Capitalism* by Paul Hawken, and Amory and Hunter Lovins to *Plan B* by Lester Brown to *The End of Oil* by Paul Roberts – is the way the authors advocate technical policy solutions as though politics didn't matter. Who cares if a carbon tax or a sky trust or a cap-and-trade system is the most simple and elegant policy mechanism to increase demand for clean energy sources if it's a political loser? (Shellenberger and Nordhaus 2004, 25)

This debate does not divide neatly between sustainability's three schools. Gelbspan's story line is significantly grounded in ecocentrism because protecting the biosphere is given the highest priority. "Activists compromise," Gelbspan quips, "Nature does not" (2004, 146). Nevertheless, his views are also colored by democratic sustainability, e.g., by arguing that "the solution to the climate crisis contains the potential to begin to

reverse our slide into a permanent corporate state and to resuscitate participatory democracy as an operating principle of our civic lives” (2004, 194).

Shellenberger and Nordhaus (2004) display a measure of ecocentrism by agreeing to the need for dramatic greenhouse-gas reductions, but argue that political momentum needs to be built toward that goal. Given the current political climate, a rigid adherence to policy litmus tests – what they call a “policy literalism” – can reduce the chances of achieving any legislative victories. This is a classic democratic sustainability story line.

One area where the prescriptions of Gelbspan and the New Apollo Project dovetail is that both have technocratic elements. Each emphasizes heavy doses of technoscientific development that reduce greenhouse gases while minimizing institutional power shifts and changes in consumptive values. Gelbspan acknowledges this tactic, arguing that a “technological fix” is necessary to get the ball rolling.

My own instinct is that changes in values frequently follow changes in technology. The larger hope here is that the very act of addressing the climate crisis in its true proportions would bring home to everyone around the world the realization that we are living on a planet with limits – and that we are now bumping up against those limits. (Gelbspan 2004, 200)

This is a simply stated goal. Yet Gelbspan proposes a strikingly complex set of policy instruments. Does whole-systems analysis operating at the global level invariably beget technocratic story lines because of the sheer scale and complexity of the enterprise?

Sustainability indicators

A similar kind of cooptation can be seen with this sphere of action. Sustainability indicators have always been vulnerable to technocratic cooptation because they are grounded in an intellectual form of commoditization: using science to make visible to

laypersons hazards that might otherwise escape detection. Early initiatives attempted to recast debates about the dangers of environmentally destructive economic development by documenting costs and benefits, thereby leading to the internalization of costs that had been externalized onto others. This can be seen as an exercise in democratic sustainability, because the goal is to expand discursive boundaries beyond acceptance of one variant or another of neoliberal economic thinking. But as the indicators sphere of action has begun to edge within public administration's discursive boundaries it has taken on an increasingly technocratic – and rule-directed – tone.

A case in point is the Effective Governance Model. This is a worthy effort at both-and thinking because it attempts to link performance measurement, public policy implementation, and citizen involvement to achieve meaningful community outcomes (Epstein, Solomon and Grifel 2000). However, applying a generic process to sustainability issues can result in superficial debates about mass transit funding and development impact fees. The system-challenging aspects of ecological crises can be significantly, if not completely, filtered out. Preactivists might argue that communities need to be essentially tricked into grappling with emergent hazards such as global warming by sneaking them in through the back door of benign-looking governance processes. But is it also possible that you get what you pay for? Might Trojan horse rhetorical strategies lead to superficial, fragile, and overly slow social learning?

The Natural Step also draws upon empirical data as a major component in stakeholder-based visioning exercises. However, this approach explicitly addresses the most contentious ecological hazards. One of the Natural Step's innovations is its avoidance of potentially endless scientific debates about individual hazards by asking

systematic questions that can generate what Hawken initially described as “surprisingly consensual agreement, from Greenpeace and unions to industry and religion” (1993, 53).

For example, in the case of dioxin or any persistent toxin, (Natural Step founder Karl-Henrik) Roberts believes there are six questions to be asked: Is dioxin natural? No. Is dioxin stable? Yes. Does it degrade into harmless substances? No. Does it accumulate in bodily tissues? Yes. Is it possible to predict the acceptable tolerances? No. Can we continue to place dioxin into the environment? No, not if we want to survive. (Hawken 1993, 53)

Hawken’s enthusiasm for the Natural Step, which was launched in Sweden, led him to import the process into the U.S. But after a decidedly mixed experience in working with corporate leaders, he switched his attention to “social” (nonprofit) entrepreneurship (e.g., Hawken 2002). What went wrong? My take is that the Natural Step vainly assumes that scientific knowledge and a well-structured group process can result in a paradigm shift despite vast imbalances of wealth, status, and power among stakeholders. This is a good example of a democratic sustainability initiative built upon the belief that altruism mixed with a large dose of rationalism will lead vested interests to voluntarily make significant sacrifices – as opposed to symbolic gestures – in order to close an ethical frontier that is highly profitable to them (at least in the short to midterm).

An initiative popular with ecocentric sustainability advocates is the ecological footprint (Wackernagel and Rees 1996). This methodology calculates the amount of land needed to sustain a population at varying consumption and pollution levels. An attractive quality of the ecological footprint is its clarity. This methodology is the basis of the contention that in 1999 humanity had “overshot” the Earth’s carrying capacity by 20 percent (Wackernagel et al. 2002), and it would take 4.5 planets to sustain the world’s population at American living standards (Ewing et al. 2008). Furthermore, focusing on

the land's carrying capacity can be a useful reflexive exercise in a culture increasingly divorced from ecological processes.

A major limitation of the ecological footprint is that it does not adequately account for emergent technoscientific developments. Toxic materials such as plutonium are excluded from ecological footprint calculations because they are “fundamentally at odds with sustainability”; other materials, as sulphur dioxide, are excluded because of the difficulty in measuring their pollution impacts (Chambers, Simmons, and Wackernagel 2000, 113). Presumably the same would hold true for bioengineered agriculture products and nanotechnology, arguably two of the most important technologies of the 21st Century. As such, the subtext of the ecological footprint may be to evoke nostalgia for simpler times, when carrying capacity was still a good proxy for the Earth's environmental health. And for all of this methodology's ecocentric appeal, its intricate calculations require a technocratic frame of mind to master.

A number of corporations have begun to use long-range, scenario-development processes that are rooted in the work of sustainability pioneers (Ogilvy 2002). Getting any organization to think longer term is surely a step forward. Furthermore, scenario planning holds out the possibility of interactivist thinking if it 1) includes system-challenging scenarios rather than filtering them out, and 2) provides discursive space to allow interactivist responses to compete with preactivist ones. In the absence of these qualities, scenario building can all too easily devolve into an insidiously rule-directed undertaking. This is because scenarios are built upon projections, and

they border on self-fulfilling prophecies. They sweep away the possibility of choice, though there is in fact plenty of latitude for choice. They aren't based on physical impossibilities, they are based on the speaker's limited imagination about political and social possibilities. (Meadows 1999, 109)

Efficient design

This has arguably been the most prominent sphere of action in recent years. At least some of these story lines may have been partially grounded in democratic sustainability, but a technocratic mindset looms large.

For example, William McDonough argues that the main reason cradle-to-cradle production systems should strive to eliminate – not just reduce – toxins and waste is to uphold democratic values in a world of long-lasting hazards. Instead of turning the planet into a veritable cesspool that has future generations asking, “What have they done?” industrial design should be transformed so that the not-yet-born can enjoy “life, liberty, and the pursuit of happiness free from ‘intergenerational remote tyranny’” (McDonough 1998, 30). Yet McDonough – in typical fashion for this sphere of action – believes that designers of various stripes should lead the charge. One way this manifests is skepticism about the utility of governmental regulations, which are “a signal of a design failure.” Good design, in contrast, “can require no regulation at all” (McDonough and Braunbart 2002, 61). This is not an unusual attitude; I am hard-pressed to point to an administrative state protectionist operating within this sphere of action.

One of the most prominent books to emerge from this sphere – and the sustainability movement as a whole – is *Natural Capitalism* (Hawken, Lovins, and Lovins 1999). This is a particularly revealing example of mutual cooptation. The early writings of two of its authors, Hawken and Amory Lovins, fit more closely within the democratic sustainability camp (e.g., Hawken 1983; Lovins 1977). However, much of their more recent work has focused on cultivating sustainability within the corporate sector through technological innovation. The authors have held out the promise that a

wide range of problems which have bedeviled humanity could be solved if technology were better exploited to increase its efficiency and effectiveness. Environmental problems are presented as primarily an engineering rather than a political or psycho-spiritual challenge. Even the breathless rhetoric of *Reinventing Government* (Osborne and Gaebler 1993) looks tame compared to the opening paragraph in *Natural Capitalism*:

Imagine for a moment a world where cities have become peaceful and serene because cars and buses are whisper quiet, vehicles exhaust only water vapor, and parks and greenways have replaced unneeded urban freeways. OPEC has ceased to function because the price of oil has fallen to five dollars a barrel, but there are few buyers for it because cheaper and better ways now exist to get the services people once turned to oil to provide. Living standards for all people have dramatically improved, particularly for the poor and those in developing countries. Involuntary unemployment no longer exists, and income taxes have largely been eliminated. Houses, even low-income housing units, can pay part of their mortgage costs by the energy they *produce*; there are few if any active landfills; worldwide forest cover is increasing; dams are being dismantled; atmospheric CO₂ levels are decreasing for the first time in two hundred years; and effluent water leaving factories is cleaner than the water coming into them. Industrialized countries have reduced resource use by 80 percent while improving the quality of life. Among these technological changes, there are important social changes. The frayed social nets of Western countries have been repaired. With the explosion of family-wage jobs, welfare demand has fallen. A progressive and active union movement has taken the lead to work with business, environmentalists, and government to create “just transitions” for workers as society phases out coal, nuclear energy, and oil. In communities and towns, churches, corporations, and labor groups promote a new living-wage social contract as the least expensive way to ensure the growth and preservation of valuable social capital. Is this the vision of utopia? In fact, the changes described here could come about in the decades to come as the result of economic and technological trends already in place. This book is about these and many other possibilities. (Hawken, Lovins, and Lovins 1999, 1-2; original italics)

Four interlocking principles are the basis for these audacious claims: a radical increase in resource productivity, the restoration of natural capital stocks, the embrace of biomimicry, and shifting to a “service-and-flow” economy. The authors insist that

Factor-10 resource productivity increases are entirely feasible with existing technology. Restoration of natural capital stocks means reversing the tendency of commerce to externalize ecological damage onto others. One way this can be done is by engaging in biomimicry, where waste is reduced or eliminated by copying biological cycles. Finally, the authors call for a shift in the relationship between producer and consumer to one where what is purchased is a flow of continuously improved services rather than a product. This would encourage such practices as businesses taking life-cycle responsibility for their wares, e.g., automobiles that are more fully recyclable.

If readers wonder whether the authors are calling for corporations to make drastic sacrifices for the common good, Hawken, Lovins, and Lovins (1999) quickly emphasize that *Natural Capitalism* is about gaining a competitive advantage as the industrial revolution enters a new, ecologically driven phase. The authors' approach can be seen as a modern-day Taylorism, except the focus is broader – the overall design, production, distribution, consumption, and reuse cycle. *Natural Capitalism* also has echoes of the conservationism of Gifford Pinchot (Cawley 1998; 2001) and the technoscientific purposiveness of a World of Tomorrow futurama, but with a more ecocentric tone.

Mary Timney (2001) describes *Natural Capitalism* as overly optimistic about the potential for change in the corporate sector and the economics profession. More broadly, Orr questions whether it is possible for capitalism to adapt to ecological realities. He pointedly argues, “Logic, data, and evidence notwithstanding, mainstream economists hold with remarkable tenacity to beliefs that technology can substitute for the loss of natural capital, economies can grow without limits, and human desires are insatiable” (Orr 2002, 107). Both the theory of economics and its daily practices in the business

world are perpetuated by “denial, repression, alienation from life, addiction, and what theologian Thomas Berry (1999) calls a kind of ecological autism” (Orr 2002, 107-108).

So how realistic is *Natural Capitalism's* optimism? In 1998 Amory Lovins inaccurately predicted that automakers would significantly reduce the carbon footprint of their U.S. vehicles by 2005-2010. However, given the rising – if still marginal – popularity of hybrids and electric vehicles as a result of gas price hikes late in the decade, perhaps Lovins' prediction was merely premature. Then again, he could also turn out to be wrong for a fundamental normative reason: The magic of the marketplace may not always be enough to close an ethical frontier without the visible hand of government.

Here *Natural Capitalism* is ambivalent. In their assessment of Curitiba, the authors illustrate the crucial role of government in turning a struggling Brazilian city into one of the world's finest examples of urban sustainability. However, in a more recent book Lovins et al. (2004) argue that a transition away from an oil-based economy could be led by the private sector without changes in taxation or governmental mandates. In addition, *Natural Capitalism* effectively embraces a relatively top-down form of social change, where the authors imply that a succession of visionary mayors was pivotal to remaking Curitiba. This story line appears to be inspired by liberation management theory. The authors argue that Curitiba's innovations

owe much to the staffing of the city's municipal departments. They're often led by women and are heavily populated by architects – professional problem-solvers – rather than by more traditional sorts of bureaucrats skilled at explaining why problems can't be solved. The interdisciplinary charrette – the architect's standard design process – is Curitiba's primary problem-solving mechanism. Conceptual tests of new ideas lead quickly to their application. Risks are taken in the expectation that mistakes will be made, quickly detected and diagnosed, and corrected. When budgets can't support an entire new program, it's launched anyway so that learning can begin while more resources or economies are sought. Failures are

frequent, hard lessons constant, struggles to improve unrelenting. . . .
Curitiba experiments and improves as assiduously as any startup
company. (Hawken, Lovins, and Lovins 1999, 300)

This story line implies that Curitiba's success is owed to both aggressive purposive action reminiscent of a private corporation *and* a high level of democratic involvement. How are conflicts between these potentially divergent goals resolved? Hawken, Lovins, and Lovins (1999) imply that the key is brilliant leadership.

It would be easy to view this story line as little more than fodder for either-or battles between the New Theory and New Normativism. That would be a mistake, because it is grounded in a different cultural context. The much-debated dichotomy between customers and citizens may be less applicable in a Third World nation where basic needs have yet to be met, such as access to safe drinking water. In addition, *Natural Capitalism's* lack of theoretical precision in championing liberation management should not obscure the authors' punch line: the importance of achieving outcomes that most matter to a community's sustainability. The authors may not pay enough attention to sustainability as a normative political problem, but their attempt to bring to the foreground the engineering component of problem solving does have utility for public administrationists too focused on political and bureaucratic considerations.

THE FUTURE OF SUSTAINABILITY

Sustainability is a fundamentally political concept despite the technoscientific fig leaf that some have painted over it. This gives the label a conflicted quality. In its more radical forms sustainability challenges the technological somnambulism of the politics-technoscience dichotomy. However, in its more technocratic forms sustainability can

look suspiciously like a new twist on the traditional quick techno-fix.

Orr (1992) worries that a technocratic vision of sustainability could result in a dystopia that, for all of its comforts, is neither environmentally healthy nor democratic.

Advocates of (technocratic) sustainability often assume that the causes of unsustainability are those of inaccurate pricing and poor technology. Sustainability merely means “finding and using the (right) policy levers” (Repetto 1986, 8), adjusting prices to reflect true scarcity and real costs, and developing greater efficiency in the use of energy and resources. And who will do this? For advocates of (technocratic) sustainability, the answer is policymakers, scientists, corporate executives, banks, and international agencies. Advocates rarely mention citizens, citizen groups, or grass-roots efforts around the world. . . . This perspective may reflect an inordinate desire to appear “reasonable,” or it may come from the parochialism that enfogs (a new word) too many conferences in expensive settings that exclude people with calloused hands. (Technocratic) sustainability is largely portrayed as a painless, rational process managed by economists and policy experts sitting in the control room of the fully modern, totally computerized society coolly pulling levers and pushing buttons. There is little evidence that its proponents understand democratic process, or comprehend the power of an active, engaged, and sometimes enraged citizenry. (Orr 1992, 28)

This is a powerful critique. But just as public administration would be most likely to close governance gaps through both-and integration of its competing schools, might the same hold true with the sustainability movement? Donella Meadows argued that environmental issues are too complex for any perspective to hold a lock on the truth.

What if we could divest ourselves of hopes, fears, and ideologies long enough to entertain all arguments and judge them fairly? What we would see, I think, is that all sides are partly right and mostly incomplete. Each is focusing on one piece of a very complex system. Each is seeing its piece correctly. But because no side is seeing the whole, no side is coming to wholly supportable conclusions. (Meadows 1994, 25)

In general, technocratic sustainability initiatives could play a crucial role in responding to risk society hazards where purely political and values-based changes would take too long to achieve. The trick is to also install brakes and a steering wheel on technoscientific

development; this is what democratic sustainability advocates do best. And if these two schools of thought fail to give adequate attention to ecological integrity, ecocentric sustainability advocates function as a dogged voice for the biosphere.

But how likely is a both-and integration of these three sustainability schools within public administration? Not very, if the sustainability movement reproduces the history of early public administration. Technocratic sustainability may end up eclipsing democratic sustainability in much the same way that the scientific management emphasis of the municipal bureau movement prevailed over the democratic focus of the settlement movement (Stivers 2000a). The 21st Century repetition of this dynamic is plausible because technocratic sustainability represents the least rule-altering extension of public administration's first modernist orthodoxy. Because the field's identity has been so heavily built around the story line of neutral competence, technocratic sustainability's notion of a guardian class of experts "managing planet Earth" should be a happy one.

In addition, a bias toward technocratic sustainability would be understandable because major risk society hazards are usually invisible to laypersons without the mediation of science. Perhaps more so than any other aspect of contemporary public administration, environmental protection has been heavily dependent upon "scientific proof." This is illustrated by Meadows (1994), who argued that science may be the best means to integrate competing paradigms. As discussed in previous chapters, the trouble with this story line is twofold. First, science may be too slow to come to anything close to a consensus before an environmental hazard spirals out of control. Second, the normative political aspects of the hazard can be marginalized by esoteric debates about the relative accuracy of competing empirical theories, e.g., as have emerged from

computer modeling of climate change. David Demeritt argues that “this political reliance on the authority of science is deeply flawed: it provides neither a very democratic nor an especially effective basis for crafting a political response to climate change” (2001, 329).

Technocratic sustainability is also privileged over democratic and ecocentric story lines because of the difficulties in challenging concentrations of economic power, and the cultural taboo against using government to rein in overconsumption. The success of public health officials in battling tobacco companies is a product of a long struggle whose outcome was by no means assured (Pertschuk 2001). Yet tobacco consumption is a simple industrial hazard compared to global warming, which is embedded in virtually all societal consumption practices and whose perpetuation benefits a veritable Spanish armada of vested interests. To go beyond quick techno-fixes (e.g., increasing CAFE standards) and challenge the consumptive values of society and the political power of the fossil fuel lobby represents an enormously risky move by mainstream environmental groups, to say nothing of public servants. The desire to appear “reasonable” is a legitimate response to the “demolition derby” of American politics (Kemmis 1990), where a potent means to incapacitate a story line is to label it as “radical.”

These dynamics encourage the embrace of technocratic approaches, perhaps under the hyperreal guise of faux democratic story lines. Indeed, the sheer complexity of applying whole-systems thinking to hazards delimited in time and space would seem to encourage technocratic approaches even by those with populist sensibilities.

Any kind of sustainability analysis is marginal to public administration, and the most likely school to gain traction may be technocratic. This is a dangerous situation that demands to be addressed. In the final chapter I will offer a few ideas for how to do so.

CHAPTER XII

TOWARD A SUSTAINABLE PUBLIC SERVICE

The intent of this essay is to hold up a mirror to public administration as it moves more deeply into a new millennium. A modified form of world risk society theory – consumptive state theory – has been applied to some of the field’s most important recent story lines in order to unmask normative assumptions that, "despite their centrality to the discussion, remain implicit, undisclosed, and undiscussed" (McSwite 1997, 2).

A key aspect of consumptive state theory is that emerging mega-hazards such as global warming represent threats of revolutionary proportions to the American constitutional order. Global warming “can no longer be viewed as simply another in a laundry list of environmental issues,” argue Clark A. Miller and Paul N. Edwards. “(R)ather, it has become a key site in the global transformation of world order” (2001, 3).

Ulrich Beck’s hazard characteristics typology helps explain why. Global warming fits all nine characteristics of a risk society hazard: It is caused primarily by technoscientific development, is delimited in time and space, impacts humans secondarily to nature and significantly without regard to class, and has complex and murky causality that requires technoscientific specialists to make it visible. In addition, global warming’s unpredictability destabilizes insurance mechanisms, and it is not very

amenable to centralized responses. As discussed in Chapter II, these represent the opposite of industrial society's archetypal hazard characteristics.

Discussions about global warming generally do not address all of these dynamics. This essay attempts to help fill this gap by engaging in a "what if?" exercise: If consumptive state theory is an accurate reflection of postindustrial reality, how does that impact the normative underpinnings of public administration? Most notably, would it be unethical for the field to fail to transcend the politics-technoscience dichotomy, the industrial ecology model, and overconsumption in its theory and practices?

I contend that the answer is yes. These normative commitments mask the significance of global warming. In doing so, they also mask the insidiously revolutionary nature of a consumptive state. As a case in point, will the emergence of hazards that *permanently* impact the *entire planet* result in a corresponding expansion of democratic principles? Or will organized irresponsibility prevail, thereby resulting in the colonization of future generations, less powerful nations, and the biosphere? American public administration may be only one actor in a complex global drama, but it nevertheless does possess a modicum of power through its regulatory authority, access to technoscientific knowledge, and consumptive discretion. This power, which often manifests in seemingly mundane professional rituals by practitioners as well as theorists, can either support or resist colonialist discourse and actions.

One difficulty in discussing the revolutionary implications of a consumptive state is normative overload. Just one manifestation of colonialism – contempocentrism – is complex enough that it could take years for the field to apprehend. However, global warming simultaneously brings to the fore anthropocentrism, lococentrism, giantism and

rationalism, which may play out as overconsumption and technological somnambulism. The scope of these interlocking normative challenges may require the field to take a great leap forward in social learning. Sustainability story lines could play a crucial role here because they tend to do a better job than public administration orthodoxy in challenging the obsolete normative commitments of first modernity.

Some readers may find it impossible to reject first modernist orthodoxy once they step away from my “what if?” parameters. That is understandable. Beck’s wide-ranging analysis is open to challenge on a number of fronts, and I have added more points of contention. At any rate, cognitive dissonance is a likely reaction by anyone who has never seriously questioned key elements of first modernist orthodoxy. For those readers, the prime value of this essay may be to reaffirm their normative commitments. However, others may wish to explore more deeply how the field’s orthodoxy could be transcended in words *and* actions. As an exercise in praxis, this chapter focuses on the institutional underpinnings of knowledge production.

Before proceeding I would like to offer a few caveats. Sketching a “sustainable” public service is a hermeneutic exercise designed to cultivate discourse on issues not typically addressed within the field. I am less concerned with the specific outcomes of those discussions than that underlying normative issues are unmasked rather than skirted by exercises in overcompartmentalization, cooptation, flights into abstraction, or revolution blindness. In other words, I have no desire to build a scholarly “united front” – this is neither desirable nor possible. A sustainable public service is *not* synonymous with risk society and consumptive state theories; they are merely catalysts for discussion. That said, I would invite the reader to consider the plausibility of three assumptions:

- Any meaningful dialogue about risk society hazards *must* include a significant normative component. That, in turn, requires addressing issues at their most appropriate levels rather than engaging in wrong-problems problem solving.
- The field could benefit by being open to the *possibility* that its normative underpinnings may be at least partially obsolete.
- The theories and practices most central to the field's future *could* come from outside its discursive core. This is why those who try to tighten its boundaries may be doing public administration a longer-term disservice.

These assumptions do not deprivilege any of the field's existing schools of thought.

Focusing more attention on the normative components of global warming does not reject the value of empirical research coming out of the New Theory. Rather, it is meant to spur scholars from all three schools to be more reflexive and transparent about the normative underpinnings of their methodological and theoretical choices. Even more "radical" public administrationists within the New Normativism and Discourse Movement may adhere – either overtly or through forms of discursive silence – to major elements of first modernist orthodoxy (perhaps without realizing it).

By the same token, the above assumptions are not meant to privilege interactivists to the exclusion of preactivists, reactivists, or inactivists. The goal is to cultivate a deeper dialogue about differing visions of the future, e.g., by transcending either-or debates that do not adequately engage the complexities of contemporary reality.

A sustainable public service should operate at two different levels. It can function as a new school of thought in the sense that it explores theoretical and practical terrain remote from existing schools. At the same time, the whole point of such explorations is

not to create an isolated enclave of “true believers,”¹ but rather to act as a springboard for cultivating more robust dialogue within public administration as a whole.

These caveats duly noted, what follows is my vision of how a consumptive state theory might translate into sustainable public service education. This vision has utopian overtones, but I have strived to achieve the balancing act described by Howard Segal:

To be effective as social criticism, a utopian vision should be concrete enough to be applicable to the real world; and it should be detached enough to be truly critical. To be applicable to the real world does not mean to mirror reality, just to be relevant to it. Far from being escapist, utopianism in this sense is intended to be played back upon the real world in order to try to change it. . . . (Segal 1985, 157)

To better align my vision with the overview of the field’s literature in Chapter IX, I have structured it around Nicholas Henry’s (1975) use of loci and foci. The theoretical framework is summarized and linked to practical examples that are applied to existing institutions. Readers are invited to judge whether the ideas are “big” enough to help public administration do its part to close the major governance gaps of a consumptive state. If they are not, what would be needed to get the job done?

In the demolition derby of American politics, the more concrete the proposal, the more open it is to attack. This may go a long way toward explaining the popularity of scholarly flights into abstraction. However, the rise of a consumptive state rules obsolete the widespread tendency (however unconscious) to delink theory and institutional practices. Now is the time to begin taking praxis seriously.

SIX LOCI AND FOCI OF SUSTAINABLE PUBLIC SERVICE EDUCATION

Public administration must champion decolonialist theories and practices in order to adequately respond to the governance gaps of a world risk society and consumptive

state. This may often necessitate rising above preactivist and incrementalist approaches to public policy making, organizational development, and administrative ethics. An authentic reinventing of government in word *and* deed is needed rather than repackaged versions of first modernist orthodoxy or faux-revolutionary flights into abstraction. If a balanced mixture of ecocentric, democratic, and technocratic sustainability represents public administration's best hope for closing governance gaps, what might that look like?

Normative focus

Dwight Waldo (1984) astutely pointed out that even seemingly mundane practices of early public administrationists had great normative significance. Indeed, they added up to a new theory of state – an administrative state. The rise of a consumptive state pushes this dynamic to more complex and opaque levels. Even rank-and-file public servants such secretaries, janitors, and motor-pool coordinators may have more collective power than the mightiest kings and dictators of yore, because their routine decisions can help melt the polar ice caps. These actions are rooted in normative commitments regarding Waldo's five problems of political philosophy. Yet they are generally masked by technicist jargon, preactivist visions of the future, and Jeeves-like instrumentalism. Whether intentionally or not, the field – dutifully marching to the beat of first modernist orthodoxy – is effectively contributing to a dystopic remaking of the constitutional order under the guise of protecting and preserving the ancien regime.

Given ongoing debates about the field's legitimacy, it may be politically convenient to mask its revolutionary power in a consumptive state. Whatever the short-term advantages to this strategy, it can result to wrong-problems problem solving. A case

in point is the story line that global warming can be dealt with through technical, managerial, or statutory means when it is ultimately a constitutional issue of transnational scope. Indeed, global warming illustrates the obsolescence of Woodrow Wilson's contention that it is "getting harder to run a constitution than to frame one" (1887, 200). The rise of a consumptive state raises unprecedented normative questions, such as the rights of less powerful nations, future generations, and other species regarding potentially permanent and irreversible hazards imposed on them by current U.S. political actors.

These issues demand to be put at the front and center of sustainable public service discourse. As a case in point, ASPA could convene a symposium on the normative and practical implications of global warming and publish its findings in a special issue of *PAR*. Great attention should be given to structuring the discussion so that it is not dominated by the short-term, fragmented, and reactive mindset of environmental policy technocrats. The goal should be to expand discursive boundaries rather than reproduce the status quo. Because public administration's discursive core has little expertise and interest in global warming, the symposium should focus primarily on importing ideas from other relevant disciplines and professions. Aggressive efforts should be made to cultivate participation from less-powerful nations that could be most impacted by the hazard. The symposium should also experiment with processes that attempt to give voice (however synthetic) to future generations and the biosphere. Perhaps most importantly, dialogue should be structured so that the technical intricacies of policy options do not marginalize normative questions, e.g., how should risk be distributed, who should decide, and what visions of the Good Life should be most privileged?

The above is a relatively simple example of sustainable public service scholarship. More difficult is the broader task of updating the curriculum of MPA programs. A key aspect of this task is answering the following question: Given the professional credentialing function of MPA programs, should the curriculum give significant attention to unmasking colonialist story lines and assessing decolonialist alternatives? As part of that discussion, should the curriculum explore whether new discretion models are needed for public administration to adequately respond to hazards such as global warming? If the curriculum should treat public servants as major actors in a revolutionary drama, what are the implications for program content?

For example, might the curriculum encourage students to explore the biggest of the “big” questions, such as what systems of governance would best respond to hazards that are global, permanent, and irreversible? Do future generations and other species need explicit protection in the constitution, as David Orr (2004b) has argued? Has the U.S. form of federalism become too centralized to be governable? The point of this line of inquiry is not to turn MPA programs into thinly veiled political science degrees. Nor is it to function as a training camp for social-change agents with a uniform “left-green” point of view. Instead, a focus on big questions is designed to cultivate moral imagination and ideologically diverse discourse on the issues that may most heavily influence the normative contours of American public administration’s future.

Addressing these big questions may be considered too hot to handle, both because of public administration’s Jeeves-like culture and the rise of a post-9/11 national security state that can dampen legitimate academic inquiry. Be that as it may, discursive strategies of silence could result in the production of a new generation of public servants

who unreflexively engage in wrong-problems problem solving, e.g., responding to constitutional problems with managerialist quick techno-fixes that could do more harm than good. Public servants rarely have unfettered policy-making autonomy, but they should develop the conceptual sophistication to unmask a colonialist agenda and consider the ethical implications of assisting in its implementation.

The National Association of Schools of Public Affairs and Administration (NASPAA) could play a valuable role by establishing standards for a new type of MPA program: a Masters in Sustainable Public Service (MSPS). Some key components of such a program are sketched below.

Technoscientific focus

I have argued that the politics-technoscience dichotomy should supplant the politics-administration dichotomy as a central topic of debate. This is because the acceleration of technoscientific development and expansion of its hazard footprints threaten to turn politics into little more than a vehicle for legitimizing and normalizing the redistribution of risks across nations, generations, and species.

A consumptive state is marked by a proliferation of technoscientific forks in the road, each of which can lead to political revolution. Public administrationists cannot ultimately choose between preserving the status quo and supporting radical change. With global warming even no- or modest-change options are nostalgic illusions that lead to back-door revolution. Key questions thus become: Which normative values are privileged, and who is most helped and hurt by their direct and indirect outcomes?

The politics-technoscience dichotomy may not be rejected anytime soon due to the soft technological determinism that dominates public administration. However, unmasking the dichotomy's theoretical importance to first modernist orthodoxy is pivotal to beginning a conversation. Recognizing that political revolutions may swing back and forth like a pendulum but technoscientific revolutions are generally permanent and irreversible is a helpful step toward apprehending the potentially vast normative implications of seemingly benign administrative theory and practices.

It should be reiterated that I do not reject technoscience per se, nor technocratic responses to hazards. Rather, I am calling for the consideration of democratic and ecocentric sustainability story lines that transcend technological somnambulism. This might be done by, for example, using the precautionary principle as a tool for evaluating whether a proposed policy is a quick techno-fix that could backfire.

ASPA's journal *Public Integrity* would be a logical sponsor of a symposium that explored the ethical implications of accelerating technoscientific development. Paper writers could be encouraged to assess possible linkages between the scale, speed, complexity, and opacity of technoscientific development and the ability of public administrationists to gain the reflexive detachment necessary to avoid unethical behavior. Is there a point where the Red Queen principle kicks in and the likelihood of administrative evil becomes as inevitable as normal accidents? As technoscientific development accelerates in tandem with globalization and individualization, does that put added pressure on public agencies to legitimize and normalize potential hazards rather than protect the public from them? If so, what constitutes ethical action, particularly with hazards delimited in time and space?

Whole-systems locus

The big questions public administration addresses should reach well beyond those typically discussed in sister fields such as political science, business management, and sociology. For example, how do fundamental choices about energy production and consumption help determine the normative character of the American commoditization regime – and public administration’s role within it? If Duane Elgin (1981) is correct in arguing that Western industrial society is sliding into decline, in which circumstances might it be ethically appropriate to replace obsolete policies, managerial approaches, institutions, and even regimes in order to avoid societal breakdown? In an era of revolutionary change, who should be privileged to make these judgment calls, and on what basis? The complexity of these questions is heightened by the relative invisibility of risk society hazards. How can they be made more tangible given an individualization process that fosters a Tower of Babel syndrome among sectors of the economy, public agencies, professions, and scholarly disciplines?

One implication of whole-systems thinking is that public administration must transcend its conceptual separation between the public and private realms. Yes, in some ways government agencies are different than private corporations and nonprofit organizations, and that may require different governance capacities. But in an age where private actions can have revolutionary public repercussions that government may be able to only partially mitigate after the fact, a commitment to acting in the public interest must pervade the public, nonprofit, *and* private sectors. As such, public service should be defined primarily by a normative political philosophy that confronts the need for heightened social learning throughout the political economy.

This raises the question of whether public administration as an academic field of study is obsolete. Should it be relegated to subfield status underneath the umbrella of a deterritorialized public service? I suspect so, but this does not mean the public sector, however much hollowed out by the forces of globalization and individualization, is unimportant in a consumptive state. While private-sector reform efforts are badly needed, I would argue that the breadth of political and economic changes required will not occur without early and robust use of governmental resources.

I have focused on macro-level questions. However, whole-systems thinking can be helpful to the individual in connecting theory with practice, their private and public lives, and abstractions with a sense of place and community. This may appear to be an impossible task to those steeped in the either-or discipline-centrism of the first modernist paradigm, but democratic and ecocentric sustainability story lines offer the promise of at least beginning to heal these schisms embedded in industrial thinking.

Toward that end, NASPAA could cultivate dialogue by convening a task force that explored alternatives to MPA curricula centered largely around training for public-sector employment. How might a reconceptualized public service export its normative proclivities to other disciplines and professions? Are there opportunities in at least some universities for the creation of public service minors that catered to majors in other fields such as business management, law, and mass communications? The curriculum of a sustainable public service minor could counterbalance the narrow technical orientation of these majors by providing a normative and whole-systems grounding in consumptive citizenship skills. In other words, it could focus on helping students learn to see “the

forest *and* the trees” (Senge 1990, 127; original italics). At the undergraduate level, the minor could offer a more integrated approach to earning general-education credits.

Reconceptualizing public service as primarily embodying a portable normative commitment to upholding the public interest rather than professional training for the public sector would better respond to the individualization of the political economy, where practitioners are increasingly unlikely to stay in one sector for their entire career (Light 1999). Note that this is not an argument for eliminating traditional MPA programs. Nor am I implying that the traditional technical skills taught in MPA programs should be marginalized in the curriculum. Instead, they could be offered in modified (and, yes, sometimes downsized form) as part of reconstituted departments of sustainable public service that give normative education the importance it is due.

Future focus

As social change accelerates up the j-curve, this results in two dynamics: 1) a greater need to anticipate – rather than merely react – to change, and 2) a decline in the usefulness of history as a problem-solving tool. This dramatically changes the relationship between the past, present and future, requiring new ways of thinking. This is particularly true for normative theorists who have worked primarily with past-focused political philosophy.

A prime goal of consumptive state theory is to challenge public administration to think harder about how the substance of people’s lives may be dramatically different in the 21st Century. Beck’s itemization of nine ways risk society hazards contrast with those of industrialism provides a useful starting point. More attention to the field of

future studies may also be helpful. Here public administration's sister field of planning may be more advanced (e.g., Isserman 1985; Cole 2001). However, even the planning literature would benefit by drawing upon Ackoff's (1974) four ways of viewing the future to unmask the normative underpinning of their story lines.

An ASPA symposium that used Ackoff's typology as a touchstone for discussing alternative ways of viewing the future might help the field think more deeply about the normative implications of its competing story lines. However, a great danger in opening these discussions is that they may fixate on comfortable, either-or story lines that fail to adequately address the subtleties and paradoxes of a consumptive state. I have described how the most revolutionary actions of the 21st Century may not be the result of aggressive actions such as military coups, but rather policy stasis that allows hazards delimited in time and space to spiral out of control. It can be difficult distinguishing between colonialist and decolonialist actions because of the invisibility and complexity of hazards as well as the hyperreality of discourse, where tangible outcomes can be masked by story lines promising the opposite. In this funhouse of mirrors, either-or theories may be useless in assessing whether an agency, profession, or a polity is likely to close a governance gap. Indeed, the practitioner realm may be filled with more nuance than can be reflected in scholarly theory. However, scholarship grounded in both-and story lines can at least modestly help practitioners better distinguish the authentic from the faux.

NASPAA could be the ideal sponsor of a high-profile study that assessed the field's ability to adapt to accelerating social change. The root question is whether public administration scholarship suffers from future shock, which may manifest in

maladaptations such as overcompartmentalization, cooptation, flights into abstraction, and revolution blindness. If so, what steps might be taken to increase social learning without succumbing to quick techno-fixes or waiting for the current generation to retire?

For example, what could be done to increase the odds that doctoral programs are producing a new generation of scholars who do not unreflexively perpetuate dangerously obsolete theory and practices? How can “important” and “cutting-edge” research be determined when book-publishing cycles may be outpaced by accelerating social change? How might knowledge-production processes be sped up? Perhaps most provocatively, how would public administration even know if it has passed through a threshold whereby complexity has outpaced the field’s learning capacity?

Ecological focus

The proposed ASPA global warming symposium was placed in the “normative focus” section in order to emphasize that this hazard is too multifaceted to be consigned to the environmental policy subfield, which has clearly been marginal to public administration’s discursive core.

This marginalization is not likely to lessen without high-level support for whole-systems thinking. For example, NASPAA could launch an annual Sustainable Public Service Scholarship Awards program that highlights research that models long-term, systemic, and proactive thinking about cutting-edge issues such as global warming. I do not like the idea of awards that use traditional issue categories (such as environmental protection) because this would perpetuate the fragmented thinking integral to much ecological destruction. That said, the awards program should not allow faux renditions

of whole-systems thinking to marginalize the ecological aspects of a given issue. Even the environmental policy subfield has not devoted enough attention to the big question of whether public administration aids and abets ecocide – and, if so, what to do about it.

Perhaps the greatest danger of such an awards program is that it could become dominated by technocratic story lines. This is why an emphasis should be placed upon scholarship that unmask the normative political aspects of risk society hazards rather than assuming they can be treated as technical problems solvable without major shifts in societal power relationships, core values, and consumptive practices. In other words, a prime goal is to cultivate debate about the viability of the industrial ecology model.

Rejecting the politics-technoscience dichotomy does not necessarily translate into transcending the industrial ecology model. For example, the field could acknowledge that the U.S.'s dependence on technoscientific development propelled by fossil fuels could harm future generations, less powerful nations, and the biosphere – but then decide that the desires of current Americans supersede the rights of those other groups (who are not explicitly protected in our constitution). Under the guise of, “We’re just following the law,” the field could continue to embrace an industrial image of democracy, where the right to life, liberty, and pursuit of happiness is narrowly bounded by time and space.

My contention is that this image of democracy becomes obsolete once the footprint of technoscientific hazards becomes global, permanent, and irreversible. Nevertheless, the history of black-white race relations in the U.S. suggests that a broader conceptualization of consumptive state citizenship may not quickly and easily occur. The best that may be hoped for in the short run is that the deafening discursive silence regarding these normative issues is finally broken.

Consumptive focus

Exploring the linkages between consumptive behavior and traditional political participation is of heightened importance to understanding effective public service in a risk society. Chapters V through VII introduced a number of concepts, both borrowed and invented, that could be useful in beginning this conversation. Overconsumption can unmask the linkage between consumptive behavior and potentially ecocidal levels of planetary destruction. Commoditization may be helpful in assessing how seemingly benign managerial or technoscientific innovations can result in dramatic shifts in political and economic power relationships regarding the meeting of basic social needs. The consumptive citizenship feedback loop can operationalize the relationship between an individual's consumptive predilections, the discursive boundaries of his profession, and his ability to engage in rule-altering actions.

Perhaps most controversially, I have argued that efforts to respond to global warming may be stymied by consumptive addictions operating at the individual, institutional, and societal levels. These addictions can be leveraged by vested interests (via the consumptive addiction plastic triangle) to maintain organized irresponsibility that externalizes risk onto others. These dynamics have significant ramifications for scholarship, because they may help explain the field's difficulties in transcending first modernist orthodoxy. Overcoming any addictive patterns will require cultivation of a discourse that is more theoretically reflexive and psychologically literate in unmasking normative commitments *and* apprehending their connection to consumptive behaviors.

One of the most important steps that the field can take in responding to global warming would be to raise awareness about the impacts of its consumptive behavior.

ASPA could show leadership by conducting a study that determined its “carbon footprint” – the amount of greenhouse gas emissions resulting from its activities (e.g., participants flying to and from annual conferences). The study should assess ways to reduce emissions, such as through experiments in teleconferencing. It would be impossible to eliminate emissions, so the study should propose a “carbon fee” added onto membership and conference fees. The funds raised by this fee would be earmarked for activities that offset ASPA emissions. For example, ASPA’s headquarters should become a national model of “green” building design.

These ideas only nibble around the margins of the key issue: overconsumption. Should the field take a stance on whether American society’s vision of the Good Life should be a global consumer class striving for ever-higher levels of addictive consumption? That may be asking too much, so how about addressing the narrower question essentially raised by Paul Hawken, Amory Lovins, and Hunter Lovins (1999): Do Third World communities find it easier to engage in whole-systems thinking because they are much poorer than their American counterparts, and thus their public sector is forced to accomplish a greater number of goals with their meager resources?

This question has enormous potential. However, I am hard pressed to imagine anything but contentious – and unproductive – debates as long as the question is viewed through the lens of either-or theorizing. U.S. conservative protectionists might come to see this as a useful Trojan horse for legitimizing and normalizing radical governmental downsizing efforts – which would result in opposition from administrative state protectionists. Even in the absence of a polarized climate, this discussion could still be difficult for the field to undertake because it would entail “remembering” more holistic

and less commoditized methods of meeting basic needs prevalent before the rise of an administrative state. Yet that remembering would need to occur in sync with an apprehension that we cannot go home again – the emergence of global, permanent, and irreversible hazards rule obsolete pure forms of reactivism. Complex new realities will require new institutional forms that mix reactivism and interactivism in both-and fashion.

An indirect approach to surfacing these issues may be the most viable. The above-mentioned ASPA symposium on global warming needs to address North-South energy consumption issues to be credible. This dialogue could be further cultivated in a follow-up symposium titled, “Sustainable Community Organizational Development: North-South Perspectives.” The format would be similar, but the discussion focused on the broader question of how to use whole-systems thinking to respond to local issues. In the sustainability movement these discussions are typically dominated by policy debates, so I would focus more on the dynamics of institutional change, which – as Bob Doppelt (2003) points out – can be pivotal to successfully implementing policy innovations.

At the micro level, the concept of consumptive citizenship can be used to address overconsumption in an era of individualization. Instead of offering a generic ethics course, MSPS programs might use the consumptive citizenship feedback loop as its touchstone. This could help students integrate their personal consumptive goals and their civic voice with the discursive challenges of their career track. Research questions would include: What are the major governance gaps facing a student’s subfield? What kind of civic role does the student seek to play (e.g., innovator, iconoclast, or mainstreamer)? How have others fared who have played similar roles in the student’s subfield? What can

be learned from ethics and organizational theory that can help a student act with moral imagination *and* avoid becoming a consumptive casualty?

I would sum up the “consumptive” challenge to public administration education this way: Whereas the field’s primary locus in an administrative state was public-sector institution building, in a consumptive state it should champion decolonialist theory and practices throughout a polity’s diffuse systems of governance. This requires that scholars rise above knee-jerk defenses of bureaucratic power against deregulatory attacks by neoliberals. Instead, the field should focus on closing governance gaps even if that means taking radical steps to transform the structure and culture of public service.

A key goal of such transformations should be to avoid the dystopia of commoditization regimes. However, that cannot be accomplished in both-and fashion without assessing commoditization within an overall system of governance rather than focusing primarily on government. A central question of any governmental deregulation, downsizing, or privatization proposal should be whether it will result in genuine decommoditization, or is merely a commoditization side shift that primarily benefits vested interests. By the same token, proposed responses to risk society hazards should be assessed for their underlying normative implications, e.g., whether a regulatory regime would result in further concentrations of political and economic power.

SUSTAINABLE PUBLIC SERVICE: PROSPECTS AND CAVEATS

The six loci and foci described above add up to a paradigm shift for public administration. Can this vision of a sustainable public service education guarantee that practitioners will adequately respond to the dynamics of a risk society and consumptive

state? Hardly. But at the very least, this story line can assist in unmasking the potential dangers of public administration continuing to cling to first modernist orthodoxy.

As discussed in Chapter III, paradigmatic challenges do not tend to result in immediate acceptance. One potential response is a rejection of the need to rethink orthodoxy. This could be based on the story line that hazards such as global warming are not potentially system challenging, either because the science is questionable or technoscientific development can address the problem with minimal or temporary disturbances to societal power relationships, core values, and consumptive practices.

The flip side of the above response is negative fatalism. Beck's assessment of this phenomenon is particularly appropriate to the scholarly realm: "Only the naïve, ontological pessimism of certainty commits one to pessimism. Whoever cultivates doubt can and must resaddle the stallions of inquiry" (1999, 88). How is this possible in an applied field with significant external constraints? Curtis Ventriss (2002) offers a helpful tonic by quoting Robert Goodin. Note Ventriss's parenthetical reference to public officials; I would also include scholars:

We must distinguish various sorts of impossibilities. There are real constraints, which are objective and unalterable, and which we must respect. Then there are self-imposed and political constraints, which merely reflect a failure of will or of planning to create future opportunities. These can hardly excuse inaction. But (sometimes public officials) do their best to blur the distinction, passing off self-imposed impossibilities for real ones. Those taken in by the ruse drop demands for policies which are both desirable and objectively feasible. They succumb to another's will without even realizing it. . . . (Goodin 1982, 131)

Goodin's comments point to another, more subtle response: a vague sympathy for a sustainable public service leavened with "we don't have the resources to do that right now." This is understandable. As the pace of social change accelerates, Red Queen

syndrome poses increasing difficulties for theorists and practitioners. However, it should be remembered that sustainability is not just another “special interest” to be added atop an already overflowing in-box. As discussed in Chapter X, one of the most important potential benefits of sustainability is a whole-systems approach that addresses multiple problems at deeper levels – thereby avoiding wrong-problems problem solving. Because of this, the lack-of-resources response may mask other concerns.

For example, any honest discussion of the scholarly political economy must acknowledge that theorists who have labored mightily for years to inch their story lines into the discursive core of public administration may find it rather cheeky for young turks to waltz in and essentially demand attention to “their” issue. This may be viewed (consciously or not) as the equivalent of cutting to the front of the line at a crowded store.

A wait-your-turn mentality may be heightened by discipline-centrism. To those who would categorize global warming as a discrete environmental issue, the call for a sustainable public service may look like a takeover of public administration by environmental studies. Indeed, the individualization of the academe may be so advanced that even those who are less discipline-centric may question the appropriateness of elevating sustainability’s normative commitments (e.g., transcending contempocentrism and anthropocentrism) over more traditional isms such as sexism, racism, and classism. Strip away fancy terms such as the “rhizomatic model” and the underlying consumptive concern might be summed up simply: What makes your issue more important than mine?

Orr (1998) appears to have come up against these kinds of questions among fellow faculty at Oberlin College, because he has a ready answer: We need to address mega-hazards such as global warming in order for all of our other initiatives to have any

hope of succeeding. Ross Gelbspan argues similarly that “climate change is not just another issue in this complicated world of proliferating issues. It is the issue that, unchecked, will swamp all other issues” (2004, 176). This is, of course, a debatable argument. It is time for public administration to engage it.

One might suggest that the decolonialist potential of consumptive state theory is not adequately utilized in the reforms sketched in the previous section. Those who hold that view are invited to fill in my discursive silences (at their own consumptive risk). On the other hand, those who believe that my vision for a sustainable public service goes too far are encouraged to articulate why. The point of this chapter, as with this essay, is not to win an argument, but to cultivate a dialogue that may be morally and technically difficult enough to outlast my generation and perhaps the 21st Century.

This dialogue should consider the magnitude gap (Adams and Balfour 2009; Baumeister 1997) between the field’s inactions and any harm that could result if global warming spirals out of control. Here it may be helpful to step outside the abstract, air-conditioned confines of the academic realm and mentally visit Alaska’s North Slope, where the symptoms of global warming have begun to appear: rising temperatures, increased storm intensity, and the thawing of permafrost (Reuters 2005).

Journalist Daniel Glick notes that the Inupiat language has many words to describe ice, but there are no words “to describe how much, and how fast, the ice is changing” (2004, 33). Those of us who are hermetically sealed from the natural world may not recognize the fundamental ways these changes threaten Inupiat culture – and ours – but these “backward” people do. Near hunting shacks on Point Barrow, Glick found three makeshift palm trees constructed from driftwood and whale parts. Those

fake palm trees can be read as an expression of black humor regarding the deterioration of the Arctic ecosystem on which the Inupiat's way of life depends. I would suggest that these artifacts also symbolize the end of first modernity.

In the cold, gray dawn of a consumptive state, even routine administrative practices invisible to the huddled masses are helping to catalyze technoscientific convulsions that may reconstitute the conditions of human existence. The threat of global warming is but one presenting symptom of our wild ride up the j-curve of social change. How should public servants act in this insidiously revolutionary time? *The Whole Earth Catalog* once declared, "We are as Gods and might as well get good at it" (Brand 1980, 2). However, this unprecedented power to determine the fate of the planet has cultivated a deep cynicism of theoretical fashions reeking of hubris. Must we choose between these two extremes? Beck's contributions are many, but his most important one may be to insist that either-or logic is inadequate to the task of addressing the great issues of our day. Both-and discourse may be fraught with its own perils, but at least it offers a more powerful lens through which to view complexity and paradox.

The rise of a consumptive state raises the question of to whom public servants should owe their allegiance. In espousing a cosmopolitan consciousness, Beck suggests that one's allegiance should not be to national parochialisms but "towards the planet as a whole" (1999, 17). This is a risky argument in light of post 9/11 nationalistic chest thumping. Nevertheless, I would contend that we can best defend the spirit of American democracy only when we apprehend how it must be updated to avoid postindustrial forms of colonialism. Public servants can only be worthy of that label if they display the wisdom to know when to act as inactivists, reactivists, preactivists, or interactivists. This

must be done within a hyperreal environment where even the most well-intended story line is vulnerable to cooptation by forces with different agendas.²

Does this sound all too ambiguous, messy, and dangerous? It is. Alas, the longer our field downplays or ignores these dynamics, the more difficult the resulting moral dilemmas public servants will face. Coming to terms with contemporary reality also means grieving what has been lost (Vickers 2006) – including the sense of identity that came with an adherence to first modernist orthodoxy.

Postmodernist theory sparked contentious debates when it was introduced into public administration discourse. Charles Fox, one of the leading participants in those debates, wisely observed, “If people talk past one another in science, the bastion of reason and exemplar of civil disputation, can we expect better from other cults?” (in H. Miller 2004, 376). Fox’s words are worth remembering given the incommensurability of the first modernist and sustainability paradigms.

On the other side of the coin, could paralyzing structural traps be avoided if the field sought a transparadigmatic synthesis? Certainly, but at a potentially steep price. O. C. McSwite argues that it is not possible to “‘be’ or to ‘use’ more than one paradigm” (2002, 17). While it is “possible to understand a paradigm in a cognitive sense, such an understanding is not equivalent to actually apprehending it” (2002, 17). McSwite’s distinction is particularly relevant to the present discussion. The incommensurability between the first modernist and sustainability paradigms may be pronounced because closing the great governance gaps of a consumptive state is not just a discursive exercise. Significant changes will be required in consumptive behavior – which may be at least partially rooted in deep-seated individual, organizational, and societal addictions.

Public administration's biggest challenge may not be what we say, but what we do. This is illustrated by the meager outcomes of the field's high-water mark in post-WWII scholarly activism – the first Minnowbrook conference.

The challenge . . . was for public administrators to be proactive in the development of solutions to social problems. Yet, those scholars who were young in 1968 retreated into the academic world and pursued their careers pretty much untouched by the (outside) world they wanted to mold. (Timney Bailey 1989, 224)

Scholars who consider championing sustainability initiatives may worry that this will marginalize them with their academic department and the field's scholarly journals.

Because of this, Farmer's notion of the *gadfly* may be helpful:

The scope required for thinking as a gadfly is broader than is available in a single truncated discourse like political science, economics, or the administrative specializations – public administration, business administration, hotel administration, sports administration, and so on. But I don't think that we need to wait for disciplinary restructuring, because each of us individuals can do what has to be done in our own way – without a permission slip. (Farmer 2005, 26)

This is a valuable sentiment because many of us may be surprised by how much discretionary power we have to initiate at least the beginnings of a sustainability agenda. Nevertheless, there is ultimately no free lunch. Closing the great governance gaps of a consumptive state may require courageous acts of moral imagination. And, as the history of whistleblowing illustrates, this may not occur without consumptive casualties.

The defining question of a revolutionary time may be, "How much of a risk dare I take?" When pondering this question, Orr encourages us to look at moral imagination as akin to financial capital. Just as it takes an individual a certain amount of money to live on, a society needs a steady flow of moral imagination in order to avoid bankruptcy.

Every generation inherits “moral capital” from preceding generations, and has an obligation to make its own contribution.

Future generations will judge ours by a simple question: “What (were) we willing to risk, and what moral capital (did) we leave behind?” (Orr 1998, 4). If this sounds too grand and bathed in principled morality, consider the following response to Charles Fox and Hugh Miller’s (1995) perennial question, “What should we do next?” Orr proposed a friendly amendment to his college’s strategic plan that may be applicable to virtually any public agency, nonprofit or corporation in America. He argued that

taking the long-term (health of the planet) seriously would change how the institution operates. We have a moral interest in making certain that campus purchasing, investments, and operations of physical plant do not undermine the integrity, beauty, and stability of the world our students will inherit. With that obligation in mind, could Oberlin take the lead to declare, say, a 10-year goal to become the first college in the world to power itself by a combination of greater efficiency, emerging solar technologies, and hydrogen? Why not? The limits are no longer technological or even economic, but those of imagination and commitment. (Orr 1998, 4)

Imagine the above 10-year goal being achieved by the institution where you work. Now visualize what *you* are willing to risk in helping catalyze this decolonialist outcome.

Whatever role it is, from innovator to reactionary, you have just situated yourself in the revolutionary milieu of a consumptive state.

GLOSSARY

Administrative autonomy movement — This discourse coalition of New Normativists has argued that the field can help the polity adapt to change by functioning as a semi-autonomous constitutional flywheel (see Page 199).

Administrative state — A political philosophy that privileges the role of a large and powerful bureaucracy in addressing the problems of an industrial political economy built upon democratic foundational values (see Page 151).

Administrative state protectionist — Opponents of globalism who argue that it is possible and desirable to maintain an administrative state despite the emergence of second modernity (see Page 182).

Altruistic individualism — Beck and Beck-Gernsheim (2001) argue that the rise of reflexive modernity has led to the development of a new political ethics that integrates individualism and altruism (see Page 47).

Anthropocentrism — A core value that gives greater weight to human wants and needs than the viability of other species and the biosphere (see Page 95).

Apprehend — To understand a changed vision of reality on an experiential rather than merely an intellectual level (see Page 73).

Citizen engagement subfield — This discourse coalition argues that public administrators should eschew seeing themselves as control-focused, all-knowing experts and instead view themselves as cultivators of more robust democratic processes (see pages 201, 222).

Colonialism — In a consumptive state the most significant – if often masked – forms of colonization involve the redistribution of “bads” onto future generations, less

powerful nations, and the rest of the biosphere. Decolonialism internalizes risk onto those who most benefit from it (see Page 181).

Commoditization — The drive to turn basic needs into commodities – goods and services that can be bought and sold with money on a large scale. Commoditization can reorder a society’s power relationships in potentially revolutionary ways, particularly in a consumptive state (see Page 110).

Commoditization side shift — An policy initiative that promises decommoditization (e.g., privatizing a governmental function) but actually shifts power to a different sector of the political economy, and benefits the recipient social groups more than the polity (see Page 143).

Conservative protectionist — An opponent of globalism that is caught between contradictory yearnings: the revival of nationalistic values (such as family, religion and community) and support for a neoliberal economic agenda that effectively erodes them (see Page 35).

Consumption addiction plastic triangle — An addiction pattern of a social group or polity enforced by the interactions between enthralling phantasmagorias, the myth of the sovereign consumer, and manipulated political paralysis (see Page 133).

Consumptive discourse analysis — A method of analysis grounded in both relational and foundational perspectives regarding knowledge development (see Page 9).

Consumptionism — A worldview that focuses on producing and consuming at escalating levels to the exclusion of other values (see Page 139).

Consumptive casualties — Workers who experience economic and/or symbolic losses in their careers in response to challenging the discursive boundaries of their field (see Page 186).

Consumptive state — A dystopic postindustrial system of governance that privileges individualization, globalism, and addictive consumptionism that perpetuate cultural lags regarding risk society hazards such as global warming (see Page 159).

Consumptive citizenship (feedback loop) — The relationship between a person's civic voice, the discursive boundaries of his profession, and his consumptive predilections (see Page 136).

Contempocentrism — A core value that gives greater weight to a society's short-term wants and needs than to those that are longer term, particularly intergenerational (see Page 95).

Cooptation — A phenomenon where a social group absorbs an outside force by filtering out its most paradigm-challenging aspects. This can be maladaptive in a consumptive state if it impedes social learning (see Page 13).

Cultural lag — The adaptive disorders that result when various parts of society respond at different rates to an innovation (see Page 53).

Democratic sustainability — This school of thought within the sustainability movement does not reject science and technology but places a greater emphasis on reforming societal value systems and power relationships (see Page 258).

Discourse coalitions — These are ensembles of story lines, the actors who speak them, and the practices in which the discursive event is situated (see Page 10).

Discourse Movement — One of three schools of thought within public administration. The Discourse Movement is primarily grounded in postmodernist theory and pragmatist thinkers such as Mary Parker Follett (see Page 200).

Discursive silence — The absence of discussion about an issue of central importance to a social group or polity (see Page 11).

Ecocentric sustainability — This school of thought within the sustainability movement values the biosphere independently of its utility to humans (see Page 259).

Ecocide — A psychosis whereby humans continue to engage in consumptive actions even though they contribute to potentially catastrophic environmental hazards (see Page 128).

Environmental policy subfield — A discourse coalition that operates at the periphery of public administration scholarship but includes scholars from all three of the field's schools of thought (see Page 201).

Ethical frontier — A “Wild West” of value systems that compete during the cultural lag between when a new technoscientific development is introduced and when society comes to stable, intersubjective agreements about the ethical parameters for its usage (see Page 59).

Evolutionary lag — The adaptive disorders that result when the capacity of humans to invent new technologies outpaces the evolutionary ability of the species to handle them safely (see Page 54).

First (or simple) modernity — An industrial political epoch dominated by nation state-centered polities, class antagonisms, and an economy steeped in the linear logic of technical rationality (see Page 16).

First modernist paradigm — The dominant worldview of public administration for the last century, which is grounded in normative commitments to the politics-

technoscience dichotomy, the industrial ecology model, and overconsumption (see Page 224).

Frontier ethics — Intersubjective agreements about the use of an emerging technoscientific development that may be dominated by moral dilemma blindness (see Page 57).

Fundamentalism — A prime opponent of reflexive modernization that can manifest in pre-modern forms (e.g., religious movements) or modern forms, such as calls for the revival of the administrative state (see pages 37, 49).

Future shock — The pace of social change becomes so great that it leads to a massive adaptational breakdown (See Page 62).

Giantism — A core value that gives greater weight to legal, economic, and social forms of organization which operate on an increasingly large scale (see Page 96).

Global warming — The theory that human-caused (anthropogenic) sources of carbon dioxide (CO₂) and other greenhouse gases are increasing the surface and low-atmosphere temperatures of the Earth (see Page 320, Note 2).

Globalization — The processes through which nation states are criss-crossed and undermined by transnational actors (see Page 34).

Globality — A world society where no nation or social group can truly isolate itself (see Page 35).

Globalism — A neoliberal utopia where economics dominates all other dimensions of globalization, such as politics, science, culture, and ecology (see Page 35).

Glocal — Viewing global issues through local policy lenses and vice versa rather than primarily through the lens of the nation state (see Page 48).

Governance gap — A snapshot of a cultural lag in progress; it represents the mismatch between the size, scope, complexity, opacity, and/or perdurability of a hazard and the capacity of a polity to protect the public from it (see Page 53).

Green protectionist — An opponent of globalism that Beck critiques as not adequately recognizing the value of globality in responding to mega-hazards because of a tendency toward anti-modernism, provinciality, and a fear of losing the political leverage of national bureaucracies (see Page 35).

Hazard footprint — How much a hazard impacts humans and the biosphere, in terms of time and space (see Page 60).

Implosion — The disintegration of physical and conceptual boundaries, e.g., between public and private, and the ways goods and services are provided (see Page 168).

Inactivism — A way of viewing the future that privileges the status quo. Inactivists fear change and favor incremental responses to societal problems (see Page 63).

Individualization — The institutionalization of individualism, whereby people feel like they are on their own in coping with potential hazards in an increasingly broad range of areas (see Page 19).

Industrial ecology model — The worldview that any environmental side effects caused by natural resource exploitation can be solved or mitigated with only minor or transitory impacts to society's power relationships, core values, and consumptive practices (see Page 94).

Interactivism — Advocates of this way of viewing the future do not settle for the status quo, seek a return to a previous state, or adapt to trends. Interactivists instead embrace fundamental changes to the foundations as well of the superstructure of society (see Page 63).

Invisible — This refers to a hazard that either 1) cannot be detected by a layperson without the mediation of science or technology, or 2) is not recognized by a social group or polity as a serious problem (see Page 13).

J-curve — Exponential growth that, when plotted on a graph, shows a curve which eventually shoots up in an almost vertical ascent (see Page 55).

Lococentrism — A core value that gives greater weight to one's own social group than that of others, such as via slavery or professional "neotribalism" (see Page 95).

Moral dilemma blindness — A dominant characteristic in an ethical frontier whereby the negative consequences of an innovation are downplayed or ignored because of the "rapture" of discovery (see Page 59).

Moral imagination — This is the ability to assess a problem of paradigmatic proportions by transcending the trained incapacity of professional discipline-centrism and disembodied intellectualism (see Page 187).

New Normativism — This public administration school of thought places an emphasis on assessing the normative political implications of administrative practices in a democracy (see Page 199).

New Theory — The central theme of this public administration school of thought has been to respond to the challenges facing the field by drawing upon methods developed in the private sector and harder sciences such as economics (see Page 198).

Overcompartmentalization — A maladaptation characterized by an institutional focus on overly narrow goals that can limit its ability to respond to changing times (see Page 62).

Overconsumption — The level or quality of consumption that undermines the life support system of a species (see Page 109).

Politics-technoscience dichotomy — A worldview where the political economy is separated into two relatively distinct spheres: the political and the technoscientific. The latter enjoys significant autonomy to unleash upon humanity and the biosphere ever-more-exotic experiments with minimal democratic oversight (see Page 86).

Preactivism — A way of viewing the future that assumes it is effectively uncontrollable, but its side effects can be mitigated by better methods of prediction and preparation. Preactivists are reformers rather than revolutionaries (see Page 64).

Precautionary principle — A “guilty-until-proven-innocent” policymaking approach whereby a new technology is either not introduced or removed from usage if there are any questions as to its safety; the larger the potential hazard footprint, the greater the precautionary measures taken (see Page 238).

Professional Cassandras — Knowledge elites who warn of risk society hazards that are downplayed or ignored outside of their professional subfields (see Page 70).

Quick techno-fix — A maladaptive intervention that attempts to respond to the symptoms of a hazard through technoscientific means but does not effectively address underlying causes rooted in power distribution, core values, and/or consumptive practices (see Page 78).

Rationalism — The core value that society has developed the intellectual capacity to solve whatever problems result from technoscientific development (see Page 96).

Reactivism — A worldview that believes a previous set of social arrangements are superior to those that currently prevail. Reactivists attempt to recreate the past, e.g., dismantle the administrative state (see Page 64).

Red protectionist — An opponent of globalism that Beck critiques as too focused on a Marxist resurrection to come to terms with the dynamics of a risk society (see Page 36).

Red Queen syndrome — A phenomenon where individuals, social groups, and polities must speed up their social learning to catch up to accelerating social change. This can result in future shock (see Page 61).

Revolution — Within a consumptive state context, a political revolution may be invisible – that is, it may be the result of inaction in responding to a technoscientific risk rather than an aggressive action, e.g., the overthrow of a government (see Page 12).

Revolution blindness — A maladaptation where an individual, social group, or polity fails to recognize the onset of a new epoch dominated by fundamentally different normative political challenges (see Page 176).

Risk society (see world risk society).

Rule-altering politics — The challenging of obsolete institutional forms through subpolitical entrepreneurialism (see Pages 45).

Rule-directed politics — Responding to risks society hazards via the institutional forms of first modernity, e.g., expert rationality and government initiative (see Pages 45).

Second (or reflexive) modernity — A postindustrial epoch dominated by fabricated uncertainties resulting from five interlinked processes: globalization, individualization, gender revolution, underemployment, and global risks (see Page 16).

Social groups — Professions, academic disciplines, public agencies, corporations, industries, or polities (see Page 322, Note 11).

Story line — A shallow and ambiguous discursive practice that includes metaphors, historical references, and appeals to collective fears or senses of guilt (see Page 10).

Structural trap — An anxiety-provoking, high-stakes situation where an individual, social group, or polity is caught on the boundary between two cultures or ways of thinking. A proliferation of deep and polarizing structural traps is a signature feature of a risk society and consumptive state (see Page 71).

Subpolitics — Venues for revolutionary technoscientific change that operate outside traditional political institutions – and often occur unconsciously and unplanned by professionals as part of their normal duties (see Page 42).

Sustainable public service — A proposed new school of thought for public administration that is marked by long-term, holistic, and proactive approaches to addressing risk society hazards such as global warming (see Page 286).

Technocratic sustainability — This school of thought within the sustainability movement assumes that risk society hazards are primarily “design problems” solvable via technological, managerial, and/or market-based solutions (see Page 256).

World risk society — A stage of development where the benefits of technoscientific development are increasingly overshadowed by hazards it creates that can cause widespread changes in society and the biosphere – often without democratic consent (See pages 15; 323, Note 2).

Zombie category — Concepts that are dead in the practitioner realm but still live on in scholarly discourse (see Page 24).

END NOTES

CHAPTER I

1. O. C. McSwite is a pseudonym for the psychically fused writing team of Orion White and Cynthia McSwain.
2. *Global warming* refers to the theory that human-caused (anthropogenic) sources of carbon dioxide (CO₂) and other greenhouse gases are increasing the surface and low-atmosphere temperatures of the Earth. Scientists generally refer to *climate change* as the broader phenomenon of temperature changes due to human and non-human causes (Russell 2004); this definition also encompasses theories about the planet warming or cooling. However, many non-scientists – some of whom are quoted in this essay – may use global warming and climate change interchangeably. Note that terminology can have political ramifications, e.g., Peter Walling (2004) complained that the G. W. Bush administration used *climate variability* because it sounded more benign than climate change. Some scientists attempt to avoid usage of global warming in favor of more scientifically precise terms such as *increasing average surface temperature* (Tobis 2004). Randolph Fritz (2004) prefers *global climate change* for scientific discussions, but argues that global warming is sufficiently descriptive for non-scientific discussions. He concludes that “there seems to be no reason to be pedantic about it” (Fritz 2004).
3. As such, my goal is to develop rather than test theory. This approach can be risky. The rise of positivism in the social sciences has deprivileged critical and interpretive research vis a vis explanatory methodologies (White and Adams 1994). Unlike more positivistic studies, a normative analysis does not adhere to the criteria of validity, testability, and causality. These represent three out of six criteria used by Robert E. Cleary (2000) when assessing the quality of public administration doctoral dissertations. However, a handful of other public administration scholars have argued in favor of various forms of critical research (e.g., Denhardt 1981a; Catron and Harmon 1981; White and Adams 1994), and

Cleary parenthetically acknowledges the “efficacy” of this approach when applied with analytical rigor (2000, 454).

4. One does not have to embrace Follett’s overly optimistic assessment of integration’s promise (E. Fox 1968) to appreciate the value of discourse where no school of thought leaves the table with an unyielding conviction that it has a monopoly on the truth.
5. This is a direct response to the persistent – if often ignored – call for public administration to focus more attention on the often-unacknowledged theories of state embedded in administrative practices (e.g., Waldo 1984; Rohr 1986; Kirlin 1996, 2001; Spicer 2001; Stillman 2001).
6. Initially Easterbrook offered a caveat that illustrates the wild-card quality of risk society hazards. He acknowledged that the *potential* harm was great enough for the U.S. to pursue a “reasonable policy that reduces the odds of climate change” (2003, 316). Easterbrook’s (1995) “no regrets” attitude, while laudable, was significantly tempered by his critique of mainstream global warming research. Here he drew upon the questionable work of Robert Balling and Patrick Michaels, scientists with ties to the fossil fuel industry “who had long been dismissed by the mainstream scientific community” (Gelbspan 2004, 51).
7. This leads me to integrate Beck’s and Hajer’s definition of reflexivity. Hajer describes reflexivity narrowly as a discursive activity: “a quality of discursive practices that illuminates the effect of certain social and cognitive systems of classification and categorization on our perception of reality” (1995, 280). Beck’s definition focuses more on “self-confrontation” with the unprecedented dangers of risk society hazards “that cannot be dealt with and assimilated in the system of industrial society – as measured by the latter’s institutionalized standards” (1994, 6). Linking these two definitions gives weight to both process and actions at individual, discourse coalition, and polity levels.

8. Although every effort has been made to avoid overly tart rhetoric, a robust critique does have the potential to inadvertently offend. Waldo's reflections on his seminal work, *The Administrative State* (1984), have been carefully considered:

It was the subject of considerable advice from and argument with the publisher and editor, who sought to "tone down" its offensiveness; as indicated above, there *was* considerable toning down. However, I was determined to be heard. A book with weaknesses I could chance, but not a *dull* book that would be ignored. I was well aware that I would pay the price for a book that was not only critical, but irritating as well. I was willing to pay the price, and the price was in fact exacted and paid. It took a decade to achieve a fair amount of respectability and acceptance in what had become "my" fraternity. (Waldo 1965, 7; original italics)

9. These journals include *Public Administration Review (PAR)*, *Administrative Theory & Praxis (ATP)*, *Administration & Society*, the *Journal of Public Affairs Education (J-PAE)*, and *Public Integrity*.
10. These writers have generally appeared in respected environmental media outlets such as *Orion* magazine, *High Country News*, and *daily.sightline.org* (formerly named *tidepool.org*).
11. Social groups include professions, academic disciplines, public agencies, corporations, industries, or polities. Social groups may or may not function as institutions, which are organizations held together by cultural values and moral commitments (Terry 1995, 26; Selnick 1952, 295).

CHAPTER II

1. For example, John Durant (1998), Anthony Giddens (1998), John Gray (1998), Scott Lash (1994, 2000), Ruth Levitas (2000), and Uwe Schimank (1992).

2. My analysis is drawn from Beck's writings published in English (1992a, 1992b, 1994, 1996, 1997, 1998a, 1998b, 1999, 2000a; 2000b; 2003; 2009; Beck and Beck-Gernsheim 2001; Beck and Willms 2004). Note that the terms "risk society" and "world risk society" are used interchangeably in this essay even though Beck (2009) uses them to distinguish between his earlier and more recent theorizing. Itemizing those distinctions is beyond the scope of this introductory and selective overview of Beck's writings.

3. Postman's (1993) three types of societies are:

- **Tool-using cultures**, which were prevalent until the 17th Century, generally used technology that had limited impacts on their religious, cultural, political, and economic traditions.
- **Technocracies**, which grew out of the print age, use science and technology as the prime means of improving the material well-being of society through a capitalist economic structure, but in the process have displaced a wide range of traditional societal practices.
- **Technopolies**, which have emerged within the last 100 years, represent the severing of technoscientific change and human purpose. Technopoly single-mindedly privileges technical rationality – a scientific-analytic mindset that emphasizes means over ends, and operates with a virtually religious belief in technological progress for its own sake.

4. This temporal reversal can be seen in discourse surrounding globalization.

For instance, the globalization of paid labour does not (yet) exist to a large degree; it threatens or, more accurately, transnational management threatens us with it. . . . The brilliantly staged *risk* of globalization, however, has already become an instrument for reopening the issue of power in society. By invoking the horrors of globalization, everything can be called into question: trade unions, of course, but also the welfare state, maxims of national policy and, it goes without saying, welfare assistance. Moreover, all of this is done with an expression of regret that it is – unfortunately – necessary to terminate Christian compassion for

the sake of Christian compassion. (Beck 1999, 138; original italics)

The above example illustrates how a future risk can be used to attack the values and practices of the past, thereby redistributing power in the present.

5. Beck colorfully argues that globalism represents

a revival movement whose apostles and prophets, instead of handing out leaflets at underground stations, preach the salvation of the world in the spirit of the marketplace. (Globalism) is high politics which presents itself as completely non-political: the absence of politics as a revolution! Its ideology is that people do not act but fulfil (*sic*) world-market laws – laws which, regrettably, force them to whittle the (social) state and democracy down to a minimum. (Beck 2003, 122)

6. Beck and Beck-Gernsheim are not waving a magic wand and making issues of class go away, but rather are analyzing them through the lens of individualization.

It would be a big mistake . . . to equate the crisis of the concept of class with a denial of increasing inequalities. In fact basing ourselves on individualization theory, we investigate and think out the opposite notion: that social inequality is on the rise precisely because of the spread of individualization. Instead of suppressing the question of how collectivity can be generated in global modernity, or shifting it into the premises of a sociology based upon uncertain class collectives, the non-class character of individualized inequalities poses it in a more radical way. There are further questions that stand out in individualization theory, even if it often has no answer for them. (Beck and Beck-Gernsheim 2001, xxiv)

7. As they are constituted – with their overspecialized division of labor, their concentration on methodology and theory, their externally determined abstinence from practice – the sciences are entirely incapable of reacting adequately to civilizational risks, since they are prominently involved in the origin and growth of those very risks. Instead – sometimes with the clear conscience of “pure scientific method,” sometimes with increasing pangs of guilt – the sciences become the legitimating patrons of a global industrial pollution and contamination of air, water foodstuffs, etc. as well as the related generalized sickness and death of plants, animals, and people. (Beck 1992a, 59)

8. The normal job has been the “central marker of people’s social identity” because of a “monopoly of paid labor,” by which Beck means “the centrality of paid labor in bestowing meaning upon activities, such that they cannot really be taken seriously unless they’re paid for.” The monopoly of paid labor can result in the “criminalization” of non-paid work, e.g., “welfare cheats” are railed against as a justification for safety-net cutbacks (Beck and Willms 2004, 85-86).

9. For example, Frederick Buttel (1992) and Alan Scott (2000) suggest that Beck’s analysis may be more applicable to Germany than other industrial nations. Christopher Hood and Henry Rothstein question whether Beck’s society-wide generalizations about risk regulations are very useful in predicting and explaining their outcomes (2001, 43). Meanwhile, Michael Mayerfeld Bell argues that Beck understates the class implications of risk (2004, 214-215). These types of debates could fill an entire book (Mythen 2004).

CHAPTER III

1. Drexler backed off from his earlier warning by pointing to the feasibility of nanotechnology manufacturing systems that avoid the danger of runaway self-replicating “grey goo robots.” However, he emphasized that there were still considerable environmental and national security risks which “will require close attention and careful policymaking” (Phoenix and Drexler 2004, 871).

2. In keeping with Beck’s argument that government is not the central mechanism for the politics of a risk society to be played out, the locus of a consumptive state analysis is governance, as opposed to government. I draw on the following definition by way of Jong S. Jun and Lianne Campodonico (1998).

Both refer to purposive behavior, to goal-oriented activities, to systems of rule; but government suggests activities that are backed by formal authority, by police powers to insure the implementation of duly constituted policies, whereas governance refers to activities backed by shared goals that may or may not derive from legal and formally prescribed responsibilities and that do not necessarily rely

on police powers to overcome defiance and attain compliance.
(Rosenau 1992, 4)

3. These categories fit within Everett Rogers's broad definition of technology, which he describes as "a design for instrumental action that reduces uncertainty in the cause-effect relationships involved in achieving a desired outcome" (1983, 12). Rogers states that technology can include either "hardware" (e.g., a computer) or "software" (e.g., conservative political philosophy, Transcendental Meditation, or a rumor).
4. Lisa Ledwidge of the Institute for Energy and Environmental Research stated that there have been holes in U.S. government efforts to inform the public of fallout hazards. These date back to the 1950s, when suppliers of photographic film were notified about projected radioactive fallout patterns so they could protect their product, but milk producers were not warned (CNN 2002).
5. Elgin's (1981) focus on societal learning processes has at least a vague family resemblance to that of Hugh Hecló. Hecló's *Modern Social Politics in Britain and Sweden* (1974) "challenged the prevailing view among political scientists that changes in public policy were largely the product of societal conflict" (Fiorino 2001, 323). Hecló instead argued that an approach which "focused on knowledge acquisition and utilization could yield better explanations and understanding about policies than existing conflict-based theories" (1974, 276).

CHAPTER IV

1. Attempting to decipher the origins of the grand alliance of technoscientific development and administrative power can quickly turn into a chicken-and-egg exercise. Certainly legislative edicts significantly inform the prevailing structure, culture and policies of public agencies, but their direction may also be influenced by internal factors such as the professional orientations of key agency personnel. As a case in point, James Q. Wilson (1989, 62) suggests that the long-term

direction of the National Highway Traffic Safety Administration was significantly determined when the just-created agency focused on hiring engineers specializing in vehicle crashworthiness rather than those with expertise in human and environmental factors. Perhaps not so coincidentally, the preactivist bent of American public administration – particularly as applied to environmental policy – has been significantly reflected in the technocratic tendencies of mainstream environmental activist groups. See Mark Dowie (1997), and Michael Shellenberger and Ted Nordhaus (2004) for critiques of these groups.

2. Both dichotomies could be viewed as rhetorical strategies designed to legitimize industrial modernity's radical specialization of knowledge and labor in a political system whose philosophical foundations were built in a more holistic pre-industrial milieu.
3. Hempel essentially classifies patriarchy as anthropocentric because it plays a crucial role in the environmental destruction of developing countries. Although he does not address the theoretical implications of his argument, it dovetails with the ecofeminist theme that there is a strong connection between the domination of women – “and other human Others” – and the “unjustified domination of non-human nature” (Warren 2000, xiv). By instead placing patriarchy in the lococentrism category I am not rejecting the above arguments, but rather am suggesting that the “otherization” of people different from us (be it regarding gender, race, nationality, profession, political ideology, religion, etc.) has somewhat different dynamics than the otherization of the non-human world – and is thus worthy of a distinct category.
4. For example, according to the Environmental Protection Agency, total emissions of six leading air pollutants (nitrogen dioxide, ozone, sulfur dioxide, particulate matter, carbon monoxide, and lead) have been cut by almost 50 percent since the 1970s even though gross domestic product (GDP) has grown by 164 percent,

energy consumption has increased 42 percent, and vehicle miles have jumped by 155 percent (EPA 2003).

5. These questions loom even larger when it comes to global governance. Comments by David B. Sandalow, a guest scholar at the Brookings Institute and an assistant secretary of state during the Clinton administration, illustrate the difficulties of viewing a risk society hazard through the lens of first modernity. Despite the U.S.'s refusal to sign the Kyoto Protocol, Sandalow expressed optimism about eventually limiting the releases of greenhouse gases after a century of sharp increases, e.g., noting the unilateral steps taken by the European Union to reduce its emissions. Sandalow pointed out that large, complex problems such as the development of global institutions to coordinate international trade "have taken 45 to 50 years to get established" (in Revkin 2003b). A half century may very well have been more than enough time to address the typical hazards of first modernity, but what if more rapid change is needed to significantly slow, let alone stop, a global, permanent, and irreversible risk society hazard?

CHAPTER V

1. Although the ecological impacts of each class should ideally be measured by per capita consumption of natural resources, pollution emissions, and disruption of habitats, Durning (1992) uses two proxies that are more easily obtained: average annual income and dominant lifestyle patterns.
2. Overconsumption is distinguished from misconsumption, which concerns individual behavior. Misconsumption results when an "individual consumes in a way that undermines his or her own well-being even if there are no aggregate effects on the population or species" (Princen 2001, 20). Examples include excessive consumption of television, food, or controlled substances. In each instance of misconsumption, the long-term impacts to the individual more than

make up for any short-term gratification. Princen (2001) focuses on the intersection between overconsumption and misconsumption because both the individual and society can potentially benefit from less excessive consumption patterns.

3. For example, when General Motors was near the zenith of its economic power in the mid-50s, its President Charles Wilson explained why he saw no potential for a conflict of interest in becoming U.S. President Dwight Eisenhower's defense secretary:

I cannot conceive of one because for years I thought what was good for our country was good for General Motors – and vice versa. The difference did not exist. Our company is too big. It goes with the welfare of the country. Our contribution to the nation is quite considerable. (in Cray 1980, 6-7)

This corporatist attitude regarding the auto industry was largely accepted by both political parties for decades, during which time numerous governmental decisions aided its growth. For example, automakers succeeded in gaining the remarkably easy passage of a massive, \$25 billion interstate highway construction program in 1956, which represented a significant redirection of national policy away from mass transit and railroads (Cray 1980, 358-359).

CHAPTER VI

1. Where ecopsychology diverges most sharply from a Marxist analysis is in emphasizing that addictions to materialism are also significantly rooted in anthropocentrism.
2. Scholarly narcissism (King 1998; Fellman 1995) is heightened by the long and costly apprenticeship that aspiring scholars endure to capture the holy grail of tenure. The pressure to focus on marketable topics and methodologies reaches all the way back to writing the doctoral dissertation, which is an important step in staking out a scholar's voice. A dissertation's importance is grounded in both

economic and symbolic logics. Given the significant amount of time and money it usually takes to complete a dissertation, getting an adequate return on that investment can be crucial to building a large enough portfolio of published work for tenure. The economic potential of the dissertation may, in turn, be partly rooted in its symbolic appeal, e.g., because the topic and methodology of a dissertation serves to “brand” the faculty job seeker in a crowded, and often shrinking, marketplace.

3. By the same token, the more invisible and exotic the risk, the more likely its Cassandras will speak in messianic overtones. It would be easy to dismiss such behavior as merely a product of a Cassandra’s psychological neuroses and the consumptive interests of his professional group (e.g., doom-and-gloom rhetoric is a time-honored technique for selling memberships to activist organizations). While these factors certainly deserve attention, another factor is worth considering within a risk society context: The shrillness of the Cassandra may be a natural, if perhaps ineffective, reaction to a larger social group’s level of denial about an unprecedented hazard.

CHAPTER VII

1. Why distinguish between a risk society and a consumptive state when the latter is defined as a diffuse system of governance – a unit of analysis that is arguably indistinguishable from a society?
 - Although Beck argues that the boundaries between traditionally political and nonpolitical institutions are eroding (e.g., in light of the heightened power of private consumptive behavior), I would suggest that they are not disappearing altogether. Thus, the public sector is still a useful, if a less dominant and sharply defined, unit of analysis within a system of governance.

- I want to situate my analysis closer to public administration's discursive core by linking it to one of the field's most perdurable story lines – the administrative state.
 - I have amended risk society theory in enough ways that it may be helpful to indicate when I am applying Beck's analysis vis a vis my own.
2. Am I suggesting that all, or even many, governmental actions represent consumptive addictions? No. For example, offering Social Security benefits to those who have no other means of providing for themselves could hardly be described as an addiction. Recall Schaeff and Fassel's definition of an addiction as "any substance or process that has taken over our lives and over which we are powerless," and that is used "to put a buffer between ourselves and our awareness of our feelings" (1988, 57-58). Here we might include public healthcare facilities designed to help patients and their families avoid facing their mortality (Sievers 1999, 597). Yes, the judgment as to what constitutes a consumptive addiction is fraught with normative questions, e.g., what constitutes a "healthy" way to die, how does that translate into hospital protocols for extending life, and who should pay for it?
3. Public schools, traffic signs, sewer systems, cigarette health warnings, libraries, images from Mars, Social Security cards, seat belts, airport metal detectors, flame-retardant clothing, and professional licenses are all artifacts of an administrative state that has dramatically reshaped the daily lives of Americans during the last century. Even vast expanses of wilderness have been transformed. The 43,000-mile interstate highway system has been called the largest public works project in world history, but roads built on publicly owned land (e.g., for logging purposes) span 13 times the length of all interstate highways (Havlick 2002, 2).

4. Why a consumptive state rather than a risk state? This is both for strategic and conceptual reasons. On the strategic front, public administration scholars tend to pigeonhole the idea of risk into the subfield of risk management, and, in doing so, marginalize it from the field's central normative debates. I would argue that issues of risk are important not just to specialists in that subfield, but as a normative concern that could become as important to public administration in a postindustrial era as the politics-administration dichotomy was during the heyday of industrialism. Furthermore, on a conceptual level I would like to highlight the connection between technoscientific development, commoditization and overconsumption, and the role of the state in facilitating each in a synergistic fashion.

5. Peter Montague sums up this perspective:

I believe rapidity of innovation is . . . crucial – the more rapid the better – because it means no one has time to consider the environmental or social costs of any particular innovation until it is too late. Without time for thoughtful examination, rapid innovation propels us forward, flying blind. Under these circumstances, no one can really be held accountable when we occasionally smash into one of those mountains hidden in the clouds. Think of tetraethyl lead, PCBs, CFCs, PBDEs, hexachlorobenzene – the purveyors of these manifestly destructive innovations have never been called to account, partly because so many people believe that the responsible parties really couldn't help themselves. They had no time to consider the consequences as they plunged ahead, fulfilling their duty to make progress. The cultural expectation of rapid innovation provides an excuse when things go bad. (2004, 1)

6. For example, Gelbspan charges that a handful of scholarly skeptics of the threat of global warming have financial ties to the fossil fuel industry, which has bankrolled a public relations campaign in the U.S. to “raise doubts about the science in order to preempt any public demand for action” (2004, 52).

CHAPTER VIII

1. Administrative state protectionists overlap somewhat with green protectionists, in that a major focus of contemporary environmentalists has been to preserve national command-and-control regulatory approaches. However, Beck notes that greens also have anti-modernist tendencies (2003, 127) that can manifest in a skepticism, if not downright hostility, toward urbanization, industrialization, and technoscientific development. This is in contrast to administrative state protectionists. I am comfortable with the negative tone of the term protectionism because it reflects my general attitude about the maintenance an administrative state as an overarching strategy: It will not work because such a state is structurally ill-suited to addressing the different hazard characteristics of a risk society. However, I do not consider any of the four types of protectionism obsolete strategies in all situations.

2. Among the building's unorthodox design goals were to:
 - Treat all wastewater to drinking-water standards with on-site natural filtering processes;
 - Generate more electricity (via renewable sources such as solar) than is consumed by an emphasis on energy conservation;
 - Use no building materials that are known to have adverse health effects, (e.g., carcinogenic, mutagenic, or endocrine disrupting);
 - Apply landscaping principles that promote biological diversity; and
 - Promote ecological competence and “mindfulness of place” (Orr 2002, 129).

CHAPTER IX

1. Henry's analysis is useful partly because it steps away from what Stephen Toulmin (1972) calls an internalist approach to intellectual history, in which the scholarly evolution of ideas is seen as a process that occurs entirely within an

academic field. Like Alasdair Roberts' (1994) assessment of why public administration embraced a politics-administration dichotomy in the late 20s and early 30s, Henry looks at both internal and external factors. "We must recognize that the public administration community is itself a participant in social struggles, and that an important part of such struggles consists of arguments about the reasonableness of the community's claim to standing in debates about administrative reform" (Roberts 1994, 227).

2. Henry uses a looser variation of Thomas Kuhn's (1996) conception of scientific paradigms: "How mainstream public administrationists have perceived their enterprise during the last 80 or so years" (1975, n385). The trouble with this definition is its vagueness allows relatively superficial disciplinary trends to morph into titanic paradigmatic clashes. Kuhn's (1996) tighter definition helps avoid this problem. He describes a paradigm as a coherent set of theories, embedded in shared values, that allows a normal science of routine research to occur without having to constantly re-ask fundamental questions. When evaluating the paradigmatic outlines of a field, normative commitments come into play when deciding which shared values and fundamental questions are brought to the theoretical foreground and which are consigned to the background – or "forgotten" altogether.
3. A number of caveats are in order. First, McSwite's categorizations may possess less analytical nuance than other potential typologies (e.g., Burrell and Morgan 1979; Wall 1991; Denhardt 1993; Holzer and Gabrielian 1998; Kettl 2002), but were chosen because they illustrate the distinctions deemed most useful for this essay. Donald Kettl's (2002) typology offers an interesting counterpoint. He sees the study of public administration as falling into three major groups: traditional public administration, the public policy field, and a political science wing. Kettl's typology may better reflect the *political economy* of public administration scholarship, but I think McSwite's approach more completely describes the field's *theoretical* diversity. For example, Kettl largely ignores the growing

presence of normative theorists. These are scholars who operate primarily within the logic of critique, and have focused on importing into the field an eclectic range of thinking such as postmodernism, critical theory, feminism, and deep ecology. My interpretation of McSwite's typology places normative theorists in all three schools of thought, but they primarily reside within the New Normativism and the Discourse Movement.

4. McSwite borrows the term New Theory from Gerald Garvey (1997).
5. Although public administration's third era (1950-1970) was heavily influenced by a behaviorist movement that swept the social sciences (Stivers 2000c), it can also be viewed as significantly colored by what was clearly an attempt – and a highly successful one at that – by the field of political science to regain dominance of public administration (Henry 1975). Although political science was one of public administration's scholarly parents, after the mid-1920s the field had drifted closer to its other parent, business management. Perhaps not so coincidentally, public administration also gained significant influence in New Deal reorganization initiatives such as the so-called Brownlow (Brownlow, Merriam, and Gulick 1937) and Hoover (1949) commissions. By the same token, as mentioned earlier, public administration's fourth era (1970-to-mid-1980s) could be viewed as a partially successful struggle by the field to crawl out from under the shadow of both political science and business management.
6. For example, W. Henry Lambright's (2010) analysis of NASA's 50-year history focuses entirely on the agency's space exploration programs. This is even though the Goddard Institute for Space Study's research on climate change – and public stances of its long-time leader James Hansen – have generated controversy within NASA's authorizing environment (e.g., Revkin 2008; Marshall 2009). That said, Lambright is also the author of two rare articles appearing in *PAR* (1997, 2008) that at least partially focus on global warming, and the more recent piece

discussed tensions between Hansen and both the Clinton and G. W. Bush administrations.

7. This builds on Charles Fox and Hugh Miller's (1995) argument that public administration's founding orthodoxy includes the latter three pillars. Note that one may find individual scholars who disagree with one, some, or even all aspects of a politics-technoscience dichotomy. However, I would hypothesize that the field by and large embraces it.
8. Using this typology to categorize scholars can be tricky. For example, elements of political interactivism can be seen in McSwite's (1997) process theory, but a careful deconstruction would also reveal a degree of reactivism. And while McSwite (2002) is more explicit than most in pointing to the dangers of technoscientific development, this appears to be grounded more in a preactivist descriptive lament rather than an interactivist call for limiting or redirecting it.
9. Would the creation of future-generation advocates invariably require the development of a new profession, replete with specialized skill sets and ethical parameters? What would that look like, and what are the strengths and weaknesses of essentially commoditizing "intergenerational deliberation?"
10. It may be fruitful to see this (at least partly) as a presenting symptom of an academic "family-of-origin" issue: Public administration may be a scholarly "adult," but it is still heavily influenced by the story lines of its disciplinary parents, political science and business management. These social sciences have had relatively little interaction with the natural sciences, which arguably gave birth to environmental studies. Postmodernist theory, in contrast, has been absorbed more easily by public administration because it emerged from more closely linked social science and humanities disciplines such as linguistics and English literature.

CHAPTER X

1. The term “reactive” should not be confused with reactivism (Ackoff 1974), which represents a normative commitment to reverting to a previous form of social organization. A reactive approach to responding to risk society hazards could be steeped in reactivist, preactivist, or inactivist visions of the future.
2. The main characteristic of the Clock is its linearity. It treats one year absolutely like another, oblivious of Moore’s Law accelerations, national fates, dark ages, or climate changes. In its company there is nothing special about now. While we discount on a sliding scale both the future and the past, the Clock does neither. Far future and near future are the same; distance past and recent past have equal value. In times of turbulence the Clock emanates calm. In calm times it reminds us that no equilibrium is stable for long. (Brand 1999, 49)

CHAPTER XI

1. An explanation of how this typology was developed can shed light on how divergent story lines can result from categorization choices. Orr (1992) proposes a typology with two categories: technological and ecological sustainability. The latter category struck me as too broad because it contains a wide range of story lines, from mainstream to radical. Here Eckersley’s (1992) typology was more helpful, because she argues that the most significant philosophical split within the environmental movement is between anthropocentric (people-centered) and ecocentric (nature-centered) approaches. The downside of Eckersley’s typology is that it does not highlight more technocratic approaches. Thus, my three-category typology integrates terms from both Orr and Eckersley. I grant you that mixing together democratic and ecocentric schools of thought can be a useful rhetorical strategy for introducing less technocratic forms of sustainability into the mainstream of public administration discourse. However, the theoretical downside is to inaccurately conflate sustainability’s ideological diversity.

2. My definition of ecocentrism may be different from that used by public administration thinkers. Most of the articles in a 2001 *ATP* symposium on “ecocentric public administration” (Luton 2001a) fall into the democratic sustainability camp; all but Luton’s (2001b) essentially argue for a less anthropocentric approach to environmental protection rather than deep ecology’s revolutionary embrace of a biotic democracy. This is a key distinction, because it avoids the mistake of conflating evolutionary reforms with fundamental changes in governance.
3. Note that sustainability initiatives can defy easy classification. To cite two quick examples, growth management could plausibly be placed in either the policy innovation or efficient design categories, because it uses the former to accomplish the latter. By the same token, the regional sustainability think tank Northwest Environment Watch (now called Sightline Institute) uses indicators as a means of legitimizing a broad range of policy innovations (e.g., NEW 2001). I have categorized initiatives according to what appear to be their dominant thrust.

CHAPTER XII

1. Senge et al. (1999) draw the term from Eric Hoffer (1951/1963), but use it in modified form. They are referring to organizational innovators who become so focused on manifesting their vision that they can become isolated, arrogant, and intolerant of the organization’s discursive core. The authors speculate that true believer syndrome may be at least partially rooted in adherence to the better mousetrap theory discussed in Chapter III (Senge et al. 1999, 321).
2. Consider, for example, one “what if?” scenario for how deterritorialization could play out within the academe. Since deterritorialization fundamentally challenges the hegemony of discipline-centric curricula (Farmer 1995), academic departments clearly need to get rid of their reified names. They could be redesignated as colors, e.g., public administration becomes the Red Department,

political science the Blue Department, etc. In the spirit of postmodernism, these colors could change each year in a sliding-of-the-signifiers ritual suitably dignified for the university. Development offices could exploit this event's considerable fundraising potential by linking it to homecoming festivities, e.g., by inviting alumni to place bets on what color their discipline will win. Once cash-short state legislatures discover how deterritorialization can make academic staffing cuts easier, the label "department" might be changed to "quality team," as in the Red Quality Team. Colors could be chosen by a game of color-coded musical chairs played by quality team leaders. After the music stops, the quality teams left standing would get to follow in Mary Park Follett's footsteps and become "public scholars" unrestricted by ivory tower walls.

REFERENCES

- Abbey, Edward. 2005. Quotes. Abbey's Web. <http://www.abbeyweb.net>.
- Abramson, Paul R., and Ronald Inglehart. 1995. *Value change in global perspective*. Ann Arbor: University of Michigan Press.
- Ackoff, Russell L. 1974. *Redesigning the future: A systems approach to societal problems*. New York: Wiley-Interscience.
- Adams, Guy B. 2000. Power: Re-examining a fundamental question in public administration. Paper presented at the Public Administration Theory Network conference, Fort Lauderdale, FL: January 28-29.
- Adams, Guy B., and Danny L. Balfour. 2009. *Unmasking administrative evil*. Third Edition. Armonk, NY: M. E. Sharpe.
- Adams, G. B., P. V. Bowerman, K. M. Dolbeare, and C. Stivers. 1990. Joining purpose to practice: A democratic identity for the public service. In H. B. Kass and B. L. Catron, eds., *Images and identities in public administration*. Newbury Park, CA: Sage Publications, 219-240.
- Alexander, Jeffery C. 1996. Reflexive modernization: Politics, tradition and aesthetics in the modern social order. *Theory, Culture and Society* 13 (4): 133-138.
- Allison, I., et al. 2009. *The Copenhagen Diagnosis, 2009: Updating the World on the Latest Climate Science*. I. Allison, N.L. Bindoff, R.A. Bindshadler, P.M. Cox, N. de Noblet, M.H. England, J.E. Francis, N. Gruber, A.M. Haywood, D.J. Karoly, G. Kaser, C. Le Quéré, T.M. Lenton, M.E. Mann, B.I. McNeil, A.J. Pitman, S. Rahmstorf, E. Rignot, H.J. Schellnhuber, S.H. Schneider, S.C. Sherwood, R.C.J. Somerville, K. Steffen, E.J. Steig, M. Visbeck, A.J. Weaver.

Sydney: The University of New South Wales Climate Change Research Centre.

APA, 2010. Chicago, IL: American Planning Association. www.planning.org/

AtKisson, Alan. 1999. *Believing Cassandra: An optimist looks at a pessimist's world*. White River Junction, VT: Chelsea Green Publishing Co.

Balfour, Danny L., and Joseph W. Grubbs. 2000. Character, corrosion and the civil servant: The human consequences of globalization and the New Public Management. *Administrative Theory & Praxis* 22 (3): 570-584.

Barber, Benjamin. 1995. *Jihad vs. McWorld: How globalism and tribalism are reshaping the world*. New York: Ballantine Books.

Bateson, Gregory. 2000. *Steps to an ecology of mind*. Chicago: University of Chicago Press.

Baudrillard, Jean J. 1994. *Simulacra and simulation*. Trans. S. F. Glaser. Ann Arbor: The University of Michigan Press.

Baumeister, R. F. 1997. *Evil: Inside human cruelty and violence*. New York: W. H. Freeman.

Beck, Ulrich. 1992a. *Risk society: Toward a new modernity*. Trans. Mark Ritter. London: Sage Publications.

———. 1992b. Modern society as a risk society. In Nico Stehr and Richard V. Ericson, eds., *The culture and power of knowledge*. Berlin: Walter de Gruyter.

———. 1994. The reinvention of politics: Towards a theory of reflexive modernization. In Ulrich Beck, Anthony Giddens, and Scott Lash, *Reflexive*

Modernization: Politics, tradition and aesthetics in the modern social order.
Stanford, CA: Stanford University Press.

- . 1996. Risk society and provident state. Trans. Martin Chalmers. In Scott Lash, Bronislaw Szerszynski and Brian Wynne, eds., *Risk, environment and modernity*. London: Sage Publications, 27-43.
- . 1997. *The Reinvention of politics: Rethinking modernity in the global social order*. Trans. Mark Ritter. Cambridge, UK: Polity Press.
- . 1998a. Politics of Risk Society. In Jan Franklin, ed., *The politics of risk society*. Cambridge, UK: Polity Press.
- . 1998b. *Democracy without enemies*. Trans. Mark Ritter. Cambridge, UK: Polity Press.
- . 1999. *World risk society*. Cambridge, UK: Polity Press.
- . 2000a. *The brave new world of work*. Trans. Patrick Camiller. Cambridge, UK: Polity Press.
- . 2000b. Risk society revisited: Theory, politics and research programmes. In Barbara Adam, Ulrich Beck, and Joost Van Loon, eds., *The risk society and beyond: Critical issues for social theory*. London: Sage Publications, 211-229.
- . 2003. *What is globalization?* Trans. Patrick Camiller. Cambridge, UK: Polity Press.
- . 2009. *World at Risk*. Trans. Ciaran Cronin. Cambridge, UK: Polity Press.

- Beck, Ulrich, and Elisabeth Beck-Gernsheim. 2001. *Individualization: Institutionalized individualism and its social and political consequences*. London: Sage Publications.
- Beck, Ulrich, and Johannes Willms. 2004. *Conversations with Ulrich Beck*. Trans. Michael Pollak. Cambridge, UK: Polity Press.
- Beckerman, Wilfred. 1994. Sustainable development: is it a useful concept? *Environmental Values* (3): 191-209.
- Behn, Robert. 1995. The big questions of public management. *Public Administration Review* 58 (3): 209-223.
- Bell, Michael Mayerfeld. 2004. *An invitation to environmental sociology*. 2nd ed. Thousand Oaks, CA: Pine Forge Press.
- Benjamin, Walter. 1993. Paris: Capital of the nineteenth century. In Philip Kasinitz, ed., *Metropolis: Center and symbol of our times*. New York: New York University.
- Beresford, Annette D. 2000. Simulated budgeting. *Administrative Theory & Praxis* 22 (3): 479-497.
- Berke, Philip R., and Maria Manta Conroy. 2000. Are we planning for sustainable development? An evaluation of 30 comprehensive plans. *Journal of the American Planning Association* 66 (1): 21-33.
- Berry, Thomas. 1999. *The great work*. New York: Bell Tower.
- Berry, Wendell. 1989. The futility of global thinking. *Harper's* 279 (1672): 16-22.

- Bingham, Richard D., and William M. Bowen. 1994. "Mainstream" public administration over time: A topical content analysis of *Public Administration Review*. *Public Administration Review* 54 (2): 204-208.
- Bollier, David. 2002. *Silent theft: The private plunder of our common wealth*. New York: Routledge.
- Bookchin, Murray. 1996. *The philosophy of social ecology: Essays on dialectical naturalism*. Montreal: Black Rose Books.
- Boorstin, Daniel J. 1978. *The republic of technology: Reflections on our future community*. New York: Harper & Row.
- Box, Richard C. 1992. An examination of the debate over research in public administration. *Public Administration Review* 52 (1): 62-69.
- . 2008. *Making a Difference: Progressive Values in Public Administration*. Armonk, NY: M. E. Sharpe.
- Box, Richard C., and Cheryl Simrell King. 2000. The "T"ruth is elsewhere: Critical history. *Administrative Theory & Praxis* 22 (4): 751-771.
- Bradsher, Keith. 2002. *High and mighty*. New York: Public Affairs.
- Brand, Stewart, ed. 1980. *The next whole Earth catalog*. New York: Random House.
- . 1999. *The clock of the long now: Time and responsibility*. New York: Basic Books.

- Brem, Robert J. 2000. *Governance and the Red Queen: The impact of hyperculture upon the practice of democratic governance*. Paper presented at the Public Administration Theory Network conference, Fort Lauderdale, FL: January 28-29.
- Brinkerhoff, Derick. 2009. The State and International Development Management: Shifting Tides, Changing Boundaries, and Future Directions. *Public Administration Review* 68 (6): 985-1001.
- Brown, Lester R. 1999. Crossing the threshold. *World Watch* 12 (2): 12-22.
- . 2009. *Plan B 4.0: Mobilizing to Save Civilization*. New York: W. W. Norton & Co.
- Brownlow, Louis, Charles E. Merriam, and Luther Gulick. 1937. *Report of the President's Committee on Administrative Management*. Washington, D.C.: U.S. Government Printing Office.
- Bryner, Gary C. 2004. Global interdependence. In Robert F. Durant, Daniel J. Fiorino, and Rosemary O'Leary, eds., *Environmental governance reconsidered: Challenges, choices, and opportunities*. Cambridge, MA: The MIT Press, 69-104.
- Buck-Morss, Susan. 1989. *The dialectics of seeing: Walter Benjamin and the arcades project*. Cambridge, MA: The MIT Press.
- Burke, Brendan F. 2007. Adaptive Leadership as a Facilitator of Public Engagement on Environmental Sustainability Issues. *Administrative Theory & Praxis* 29 (3): 412-431.
- Burrell G., and G. Morgan. 1979. *Sociological paradigms in organizational analysis*. London: Heinemann.

Buttel, Federick. 1992. Environmentalization: Origins, processes, and implications for rural social change. *Rural Sociology* 57: 1-27.

Caldwell, Lynton K. 1963. Environment: A new focus for public policy? *Public Administration Review* 13 (3): 132-139.

———. 2000a. Is leviathan manageable? Review of *Making the Managerial Presidency*, 2nd ed., by Peri E. Arnold. *Public Administration Review* 60 (1): 72-80.

———. 2000b. Twenty-first-century challenges for environmental management. Review of *Managing the environment – managing ourselves: A history of American environmental policy*, by Richard N. L. Andrews; and *Managing for the environment: Understanding legal, organizational, and policy changes*, by Rosemary O’Leary, Robert F. Durant, Daniel J. Fiorino, and Paul Weiland. *Public Administration Review* 60 (6): 588-590.

Callenbach, Ernest. 1975. *Ecotopia: the notebooks and reports of William Weston*. Berkeley: Banyon Tree Books.

Campos, Paul. 2004. Why our fears about fat are misplaced. *New Scientist*, May 1: 20-21.

Carroll, Lewis. 1960. *The annotated Alice: Alice’s adventures in Wonderland and through the looking glass*. Introduction and notes by Martin Gardner. New York: C. N. Potter.

Carson, Rachel. 1962. *Silent spring*. Boston: Houghton Mifflin.

- Catron, B. L., and M. M. Harmon. 1981. Action theory in practice: Toward theory without conspiracy. *Public Administration Review* 41 (5): 535-541.
- Catron, Bayard. 1996. Sustainability and intergenerational equity: An expanded stewardship role for public administration. *Administrative Theory & Praxis* 18 (1): 2-12.
- Cawley, R. McGregor. 1998. We may help to make up the general mind: Reuniting Wilson, Taylor, and Pinchot. *Administrative Theory & Praxis* 20 (1): 55-67.
- . 2001. Everything is hitched to everything else: Environmentalism, governmentality, and legitimacy. *Administrative Theory & Praxis* 23 (1): 83-98.
- Centers for Disease Control. 2003. *MMWR Weekly*, 15 August, 52 (32) : 764-769.
- . 2004. *MMWR Weekly*, 6 February, 53 (04): 80-82.
- Chambers, Nicky, Craig Simmons, and Mathis Wackernagel. 2000. *Sharing nature's interest: Ecological footprints as an indicator of sustainability*. London: Earthscan Publications Ltd.
- Christianson, Gale E. 1999. *Greenhouse: The 200-year story of global warming*. New York: Penguin Books.
- CIA. 2010. Country Comparison, Oil Consumption. *The World Factbook*. Washington, D.C.: Central Intelligence Agency. <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2174rank.html>
- City of Portland and Multnomah County. 2001. *Local action plan on global warming*. Portland: City of Portland and Multnomah County.

- Clark, William C., Jill Jager, Jeannine Cavender-Bares, and Nancy M. Dickson. 2001. Acid rain, ozone depletion, and climate change: An historical overview. In The Social Learning Group, ed., *Learning to manage global environmental risks, Vol. 1: A comparative history of social responses to climate change, ozone depletion, and acid rain*. Cambridge, MA: The MIT Press, 21-55.
- Cleary, Robert E. 1992. Revisiting the doctoral dissertation in public administration: An examination of the dissertations of 1990. *Public Administration Review* 52 (1): 55-61.
- . 2000. The public administration doctoral dissertation reexamined: An evaluation of the dissertations of 1998. *Public Administration Review* 60 (5): 446-455.
- Cleveland, Harland. 1988. Theses of a new reformation: The social fallout of science 300 years after Newton. *Public Administration Review* 48 (3): 681-686.
- CNN. 2002. Study: 1950s nuclear fallout worse than thought. *CNN.com*, March 1. <http://www.cnn.com/2002/US/03/01/nuclear.fallout/>.
- Cobb, Clifford, Mark Glickman, and Craig Cheslog. 2001. *The Genuine Progress Indicator 2000 Update*. Oakland, CA: Redefining Progress.
- Cole, Sam. 2001. Dare to dream: Bringing futures into planning. *APA Journal* 67 (4): 372-383.
- Comfort, Louise K. 2002. Rethinking security: Organizational fragility in extreme events. *Public Administration Review* 62 (Special Issue): 98-107.
- Conca, Ken. 2001. Consumption and environment in a global economy. *Global Environmental Politics* 1 (3): 53-71.

- Cooperrider, David L., Diana L. Whitney, and Jacqueline M. Stayros. 2003. *Appreciative inquiry handbook: The first in a series of AI workbooks for leaders of change*. Bedford Heights, OH: Lakeshore Communications Inc.
- Cray, Ed. 1980. *Chrome colossus: General Motors and its times*. New York: McGraw-Hill Book Co.
- Daly, Herman E. 1996. *Beyond growth: The economics of sustainable development*. Boston: Beacon Press.
- Daly, Herman E., and Joshua Farley. 2004. *Ecological economics: Principles and applications*. Washington, D.C.: Island Press.
- Datz, Giselle. 2009. State of Change: Global Turmoil and Government Reinvention. *Public Administration Review* 69 (4): 660-665.
- Dauvergne, Peter. 2008. *The Shadows of Consumption: Consequences for the Global Environment*. Cambridge, MA: The MIT Press.
- Davis, David Howard. 1998. Government scientists and the greenhouse effect. *PA Times* 21 (7): 1-2.
- De Graaf, John, David Wann, and Thomas H. Naylor. 2001. *Affluenza: The all-consuming epidemic*. San Francisco: Berrett-Koehler Publishers Inc.
- Demeritt, David. 2001. The construction of global warming and the politics of science. *Annals of the Association of American Geographers* 91 (2): 307-337.
- Denhardt, R. B. 1981a. *In the shadow of organization*. Lawrence: Regents Press of Kansas.

- . 1981b. Toward a critical theory of public organization. *Public Administration Review* 41 (6): 628-635.
- . 1993. *Theories of public organization*. 2nd ed. Belmont, CA: Wadsworth.
- Diamond, Michael A. 1993. *The unconscious life of organizations: Interpreting organizational identity*. Westport, CT: Quorum Books.
- . 1999. Embracing organized disorder: The future of organizational membership. *Administrative Theory & Praxis* 21 (4): 433-440.
- Diver, C. S. 1982. Engineers and entrepreneurs: The dilemma of public management. *Journal of Policy Analysis and Management* 1: 402-406.
- Dodge, Jim. 1981. Living by life: Some bioregional theory and practice. *CoEvolutionary Quarterly* 32: 6-12.
- Dominguez, Joe, and Vicki Robin. 1992. *Your money or your life: Transforming your relationship with money and achieving financial independence*. New York: Viking Penguin.
- Doppelt, Bob. 2003. *Leading change toward sustainability: A change-management guide for business, government and civil society*. Sheffield, UK: Greenleaf Publishing Ltd.
- Douglas, Mary, and Aaron Wildavsky. 1982. *Risk and culture: An essay on the selection of technological and environmental dangers*. Berkeley: University of California Press.

- Dowie, Mark. 1997. *Losing ground: American environmentalism at the close of the twentieth century*. Cambridge, MA: The MIT Press.
- Drexler, Eric K. 1986. *Engines of creation*. Garden City, NY: Anchor Press/Doubleday.
- Drucker, Peter F. 1969. *The age of discontinuity: Guidelines to our changing society*. New York: Harper & Row.
- Dunlap, Riley E. 1987. Polls, pollution, and politics revisited: Public opinion on the environment in the Reagan era. *Environment* 29 (July-August): 6-11, 32-37.
- . 1991. Public opinion in the 1980s: Clear consensus, ambiguous commitment. *Environment* 33 (8): 10-15, 32-37.
- Durant, John. 1998. Once the men in white coats held the promise of a better future. . . . Jan Franklin, ed., *The politics of risk society*. Cambridge, UK: Polity Press, 70-75.
- Durant, Robert F., Daniel J. Fiorino, and Rosemary O’Leary, eds. 2004. *Environmental governance reconsidered: Challenges, choices, and opportunities*. Cambridge, MA: The MIT Press.
- Durant, Robert F., with Thanit Boodphetcharat. 2004. The precautionary principle. In Robert F. Durant, Daniel J. Fiorino, and Rosemary O’Leary, eds., *Environmental governance reconsidered: Challenges, choices, and opportunities*. Cambridge, MA: The MIT Press, 105-144.
- Durning, Alan Thein. 1992. *How much is enough? The consumer society and the future of the Earth*. New York: W.W. Norton.

- Easterbrook, Gregg. 1995. *A moment on Earth: the coming age of environmental optimism*. New York: Viking.
- . 2003. *The progress paradox: How life gets better while people feel worse*. New York: Random House.
- . 2006. Finally Feeling the Heat. *The New York Times*, May 24.
- Eckersley, Robyn. 1992. *Environmentalism and political theory: Toward an ecocentric approach*. Albany: State University of New York Press.
- Eckstein, Barbara, and James A. Throgmorton, eds. 2003. *Story and sustainability: Planning, practice, and possibility for American cities*. Cambridge, MA: The MIT Press.
- Edwards, Paul N. 2001. Representing the global atmosphere: Computer models, data, and knowledge about climate change. In Clark A. Miller and Paul N. Edwards, eds. *Changing the atmosphere: Expert knowledge and environmental governance*. Cambridge, MA: The MIT Press, 31-65.
- EIA. 2010. Total Carbon Dioxide Emissions from the Consumption of Energy. International Energy Statistics table. Washington, D.C.: U.S. Energy Information Administration.
<http://www.eia.doe.gov/emeu/international/contents.html>.
- Elgin, Duane. 1981. *Voluntary simplicity: Toward a way of life that is outwardly simple, inwardly rich*. New York: William Morrow and Co.
- Elkington, John. 2001. *The chrysalis economy: How citizen CEOs and corporations can infuse values and value creation*. Oxford: Capstone Publishing.

- Elliott, Jennifer A. 1999. *An introduction to sustainable development*, 2nd ed. London: Routledge.
- EPA. 2003. *Latest findings on national air quality: 2002 status and trends*. Research Triangle Park, NC: United States Environmental Protection Agency.
- Epstein, Edward. 2003. California emissions law now a model; it's cited in major new Senate bill. *SFGate.com*, January 9. <http://www.sfgate.com/cgi-bin/article.cgi?file=/>.
- Epstein, Paul, Randall Solomon, and Stuart Grifel. 2000. *High value performance measurement: For sustainable results that matter to citizens*. Draft article for New Jersey Future.
- Ewing B., S. Goldfinger, M. Wackernagel, M. Stechbart, S. M. Rizk, A. Reed and J. Kitzes. 2008. *The Ecological Footprint Atlas 2008*. Oakland: Global Footprint Network.
- Exner, Rich. 1998. New Oberlin building to be a study in conservation. *The Plain Dealer*, September 24: A1, 8.
- Farazmand, Ali. 2009. Building Administrative Capacity for the Age of Rapid Globalization: A Modest Prescription for the Twenty-First Century. *Public Administration Review* 69 (6): 1007-1020.
- Farman, Joe. 2002. Halocarbons, the ozone layer and the precautionary principle. In Poul Harremoes, David Gee, Malcolm MacGarvin, Andy Stirling, Jane Keys, Brian Wynne, and Sofia Guedes Vas eds., *The Precautionary Principle in the 20th Century*. London: Earthscan Publications, 79-89.

- Farmer, David J. 1995. *The language of public administration: Bureaucracy, modernity, and postmodernity*. Tuscaloosa: The University of Alabama Press.
- . 1999. Public administration discourse: A matter of style? *Administration & Society* 31 (3): 299-320.
- . 2005. *To kill the king: Post-traditional governance and bureaucracy*. Armonk, NY: M. E. Sharpe.
- . 2007. ~~Red Queen~~. *Administrative Theory & Praxis* 29 (3): 359-369.
- Farrell, Ben, Melanie Mintz, and Adam Zimmerman. 2002. *Building a sustainable Oregon from within: A formative review of the state of Oregon's Sustainability Initiative*. Eugene: University of Oregon.
- Fay, Brian. 1987. *Critical social science: Liberation and its limits*. Ithaca, NY: Cornell University Press.
- Feiock, Richard C., and Christopher Stream. 2001. Environmental protection versus economic development: A false trade-off? *Public Administration Review* 61 (3): 313-319.
- Feiock, Richard C., M. Jae Moon, and Hyung Jun Park. 2008. Is the World "Flat" or "Spiky"? Implications of Globalization for Economic Development. *Public Administration Review* 68 (1): 24-35.
- Fellman, Gordon. 1995. On the fetishism of publications and the secrets thereof. *Academe* 81 (1): 26-35.

- Felts, Arthur A., and Philip H. Jos. 2000. Time and space: The origins and implications of the New Public Management. *Administrative Theory & Praxis* 22 (3): 519-533.
- Finkelstein, Eric A., Ian C. Fiebelkorn, Guijing Wang. 2003. National medical expenditures attributable to overweight and obesity: How much, and who's paying? *Health Affairs* 22 (4): 8.
- Fiorino, Daniel J. 2001. Environmental policy as learning: A new view of an old landscape. *Public Administration Review* 61 (3): 322-334.
- . 2004. Flexibility. In Robert F. Durant, Daniel J. Fiorino, and Rosemary O'Leary, eds., *Environmental governance reconsidered: Challenges, choices, and opportunities*. Cambridge, MA: The MIT Press, 393-425.
- Flavin, Christopher. 1998. Last tango in Buenos Aires. *World Watch* 11 (6): 10-18.
- Follett, Mary Parker. 1918. *The new state: Group organization, the solution of popular government*. New York: Longmans, Green.
- . 1924. *Creative experience*. New York: Longmans, Green.
- . 1965. *Dynamic administration*. Henry C. Metcalf and L. Urwick, eds. New York: Sir Isaac Pitman & Sons.
- Folz, David H. 1999. Municipal recycling performance: A public sector environmental success story. *Public Administration Review* 59 (4): 336-345.
- Fox, Charles J., and Hugh T. Miller. 1995. *Postmodern public administration*. Thousand Oaks, CA: Sage Publications.

- Fox, Elliot M. 1968. Mary Parker Follett: The enduring contribution. *Public Administration Review* 28 (6): 520-529.
- Frederickson, H. George. 1971. Toward a new public administration. In Frank Marini, ed., *Toward a new public administration: The Minnowbrook perspective*. New York: Chandler Publishing Co.
- . 1996. Comparing the reinventing government movement with the new public administration. *Public Administration Review* 56 (3): 263-269.
- Frederickson, H. George, and Todd R. LaPorte. 2002. Airport security, high reliability, and the problem of rationality. *Public Administration Review* 62 (Special Issue): 33-43.
- Freudenburg, William R. 2000. Social constructions and social constrictions: Toward analyzing the social construction of “the naturalized” as well as “the natural”. In Gert Spaargaren, Arthur P. J. Mol, and Frederick Buttel, eds. *Environment and global modernity*. London: Sage, 103-119.
- Fritz, Randolph. 2004. Imprecision of the phrase “Global Warming,” Comment No. 5 filed under “Climate Science,” *RealClimate*, December 31.
<http://www.realclimate.org/>
- Fulton, William, and Chris Jackson. 1999. Let’s meet at the library: It’s becoming the most popular spot in town. *Planning* 65 (5): 4-9.
- Garvey, Gerald. 1997. *Public administration: The profession and practice*. New York: St. Martins Press.
- Gelbspan, Ross. 1998. *The heat is on: The climate crisis, the cover-up, the prescription*. Reading, MA: Perseus Books.

- . 2004. *Boiling point: How politicians, big oil and coal, journalists, and activists are fueling the climate crisis – and what we can do to avert disaster*. New York: Basic Books.
- Geczi, Emilian. 2007. Sustainability and Public Participation: Toward an Inclusive Model of Democracy. *Administrative Theory & Praxis* 29 (3): 375-393.
- Giddens, Anthony. 1998. Risk society: The context of British politics. In Jan Franklin, ed., *The politics of risk society*. Cambridge, UK: Polity Press.
- Gilder, George. 2002. Moore's quantum leap: Why has the microchip's explosive growth rate never happened before? *Wired* 10 (1): 104-107.
- Gladwell, Malcolm. 2002. *The tipping point: How little things can make a big difference*. Boston: Little, Brown and Company.
- Glick, Daniel. 2004. The big thaw. *National Geographic*, September: 12-33.
- Glendinning, Chellis. 1995. Technology, trauma, and the wild. In Theodore Roszak, Mary E. Gomes, and Allen D. Kanner, eds., *Restoring the Earth, healing the mind*. San Francisco: Sierra Club, 41-54.
- Goldsmith, Edward. 1998. *The way: An ecological world-view*. Athens, GA: University of Georgia Press.
- Golembiewski, Robert T. 1977. *Public administration as a developing discipline. Part I: Perspectives on past and present*. New York: Marcel Dekker Inc.
- Goodin, Robert. 1982. *Political theory and public policy*. Chicago: University of Chicago Press.

Goodnow, Frank J. 1900/1967. *Politics and administration: A study in government*.
New York: Russell & Russell.

Goodwyn, Lawrence. 1978. *The populist moment: A short history of the agrarian revolt
in America*. New York: Oxford University Press.

Goodsell, Charles T. 1995. Foreword to *Postmodern public administration: Toward
discourse*, by Charles J. Fox and Hugh T. Miller. Thousand Oaks, CA: Sage
Publications, ix-xiii.

Gray, John. 1998. Nature bites back. Jan Franklin, ed., *The politics of risk society*.
Cambridge, UK: Polity Press, 43-46.

Green, Richard T., and Lawrence Hubbell. 1996. On governance and reinventing
government. In Gary Wamsley, and James Wolf, eds., *Refounding democratic
public administration: Modern paradoxes, postmodern challenges*. Thousand
Oaks, CA: Sage Publications, 38-67.

Greenberg, Stanley B. 2004. *The two Americas: Our current political deadlock and
how to break it*. New York: St. Martin's Press.

Green Party of the U.S. 2010. Ten key values of the Green Party.
<http://www.greenpartyus.org/tenkey.html>

Guber, Deborah Lynn. 2003. *The grassroots of a green revolution: Polling America on
the environment*. Cambridge, MA: The MIT Press.

Habermas, Jurgen. 1971. *Toward a rational society: Student protest, science, and
politics*. Trans. Jeremy J. Shapiro. Boston: Beacon Press.

- Hajer, Maarten. 1995. *The politics of environmental discourse: Ecological modernization and the policy process*. Oxford: Clarendon Press.
- Hamer, Mick. 2004. Be a power broker in your own home. *New Scientist*, February 14: 24.
- Harmon, Michael M. 1995. *Responsibility as paradox: A critique of rational discourse on government*. Thousand Oaks, CA: Sage Publications.
- . 2003. Why principles can't justify: A pragmatist commentary on the affirmative action debate. *Administrative Theory & Praxis* 25 (1): 91-116.
- Harmon, Michael M., and Richard T. Meyer. 1986. *Organizational theory for public administration*. Burke: Chatalaine Press.
- Harremoes, Poul, David Gee, Malcolm MacGarvin, Andy Stirling, Jane Keys, Brian Wynne, and Sofia Guedes Vas, eds. 2002. *The precautionary principle in the 20th century*. London: Earthscan Publications.
- Hassard, John. 1995. *Sociology and organizational theory: Positivism, paradigms and postmodernity*. Cambridge, U.K.: Cambridge University Press.
- Hasselmann, K., et al. 2003. The challenge of long-term climate change. *Science*, December 12 (302): 1923-1925.
- Havlick, David G. 2002. *No place distant: Roads and motorized recreation on America's public lands*. Washington, D.C.: Island Press.
- Hawken, Paul. 1983. *The next economy*. New York: Holt, Rinehart and Winston.

———. 1993. *The ecology of commerce: A declaration of sustainability*. New York: HarperCollins.

———. 2002. Globalization equals conformity and loss of diversity. *Whole Earth* (Spring): 68.

Hawken, Paul, Amory Lovins, and L. Hunter Lovins. 1999. *Natural capitalism: Creating the next industrial revolution*. Boston: Little, Brown and Company.

Heady, Herrel. 2001. *Public administration: A comparative perspective*. 6th Ed. New York: Marcel Dekker Inc.

Heclo, Hugh. 1974. *Modern social politics in Britain and Sweden: From relief to income maintenance*. New Haven, CT: Yale University Press.

Heilbroner, Robert L. 1994a. Do machines make history? In Merrit Roe Smith and Leo Marx, eds., *Does technology drive history? The dilemma of technological determinism*. Cambridge, MA: The MIT Press, 53-65.

———. 1994b. Technological determinism revisited. In Merrit Roe Smith and Leo Marx, eds., *Does technology drive history? The dilemma of technological determinism*. Cambridge: The MIT Press, 67-78.

Hempel, Lamont C. 1996. *Environmental governance: The global challenge*. Washington, D.C.: Island Press.

———. 1999. Conceptual and analytical challenges in building sustainable communities. In Daniel A. Mazmanian and Michael E. Kraft, eds., *Toward sustainable communities: Transition and transformations in environmental policy*. Cambridge, MA: The MIT Press, 43-74.

- Henry, Nicholas. 1975. Paradigms of public administration. *Public Administration Review* 36 (4): 378-386.
- Hoffer, Eric. 1951/1963. *The true believer: Thoughts on the nature of mass movements*. 2nd ed. New York: Harper & Row.
- Hofrichter, Richard. 2000. *Reclaiming the environmental debate: The politics of health in a toxic culture*. Cambridge, MA: The MIT Press.
- Holland, Alan. 2003. Sustainability. In Dale Jamieson, ed., *A companion to environmental philosophy*. Malden, MA: Blackwell Publishing Ltd, 391-401.
- Holmberg, J., and R. Sandbrook. 1992. Sustainable development: What is to be done? In J. Holmberg, ed., *Policies for a small planet*. London: Earthscan, 19-38.
- Holzer, Marc and Vatche Gabrielian. 1998. Five great ideas in American public administration. In Jack Rabin, W. Bartley Hildreth, and Gerald J. Miller, eds., *Handbook of public administration*. 2nd ed. New York: Marcel Dekker Inc.
- Hood, Christopher, and Henry Rothstein. 2001. Risk regulation under pressure: Problem solving or blame shifting? *Administration & Society* 33 (1): 21-53.
- Hoover Commission. 1949. *The Hoover Commission report on organization of the executive branch of government*. New York: McGraw-Hill Book Co.
- Hummel, Ralph. 1994. *The bureaucratic experience: A critique of life in modern organization*. 4th ed. New York: St. Martin's Press.
- . 1996. Post-modernism and a reasonable philosophy. *Administrative Theory & Praxis* 18 (1): 45-47.

- Hunold, Christian, and John S. Dryzek. 2002. Green political theory and the state: Context is everything. *Global Environmental Politics* 2 (3): 17-39.
- ICLEI. 2010. ICLEI Members by Region. International Council for Local Environmental Initiatives. <http://www.iclei.org/index.php?id=1387®ion=NA>
- Isserman, A. 1985. Dare to plan: An essay on the role of the future in planning practice and education. *Town Planning Review* 56: 483-491.
- Jacobs, Debra A. 2001. Alterity and the environment: Making the case for anti-administration. *Administrative Theory & Praxis* 23 (4): 605-620.
- Janofsky, Michael. 2004. A study finds mercury levels in fish exceed U.S. standards. *The New York Times*, August 4. <http://www.nytimes.com/>
- Joy, Bill. 2000. Why the future doesn't need us. *Wired* April (8.04): 238-262.
- Jun, Jong S. 1997. Interpretive and critical perspectives: An introduction. *Administration Theory & Praxis* 19 (2): 146-153.
- , ed. 2002. *Rethinking administrative theory: The challenge of the new century*. Westport, CT: Praeger.
- Jun, Jong S., and Lianne Campodonico. 1998. Globalization and democratic governance: A contradiction. *Administrative Theory & Praxis* 20 (4): 478-490.
- Kantor, David, and Steven Ober. 1999. Heroic modes: The hidden dynamics of high-stakes situations. In Peter Senge, Art Kleiner, Charlotte Roberts, Richard Ross, George Roth, and Bryan Smith, eds., *The dance of change: The challenge of sustaining momentum in learning organizations*. New York: Doubleday.

- Katz, Eric. 2000. Against the inevitability of anthropocentrism. In Eric Katz, Andrew Light, and David Rothenberg, eds., *Beneath the surface: Critical essays on the philosophy of deep ecology*. Cambridge, MA: The MIT Press, 17-42.
- Kaufman, Herbert. 1969. Administrative Decentralization and Political Power. *Public Administration Review* 29 (1): 3-15.
- Kellogg, Terry. 1991. *Broken Toys, Broken Dreams*. Santa Fe, N. M: Audio Awareness. Audiotape.
- Kelly, Kevin. 1998. *New rules for the new economy: 10 radical strategies for a connected world*. New York: Viking.
- Kemmis, Daniel. 1990. *Community and the politics of place*. Norman: University of Oklahoma Press.
- Kennedy, Donald. 2004. The hydrogen solution. *Science*, August 13 (305): 917.
- Kettl, Donald F. 2000. The transformation of governance: Globalization, devolution, and the role of government. *Public Administration Review* 60 (6): 488-497.
- . 2002. *The transformation of governance: Public administration for twenty-first century America*. Baltimore: The Johns Hopkins University Press.
- Kiel, L. Douglas, and Euel Elliott. 1999. Long-wave economic cycles, techno-economic paradigms, and the pattern of reform in American public administration. *Administration & Society* 30 (6): 616-639.
- King, Cheryl Simrell. 1998. Healing the scholarship/practice wounds. *Administrative Theory & Praxis* 20 (2): 159-171.

- King, Cheryl Simrell, Camilla Stivers, Richard Box, Linda Chapin, Dolores Foley, Joseph Gray, Ralph Hummel, Margaret Kelly, Walter Kovalick, Jr., Renee Nank, Deborah Sagen, Mary Timney and Lisa Zanetti. 1998. *Government is us: Public administration in an anti-government era*. Thousand Oaks, CA: Sage Publications.
- King, David A. 2004. Climate change science: Adapt, mitigate, or ignore? *Science*, January 9 (303): 176-177.
- Kirkpatrick, David. 2004. Look to tech, not politics. *Fortune.com*, January 29. <http://www.money.cnn.com/fortune/>.
- Kirlin, John J. 1996. The big questions of public administration in a democracy. *Public Administration Review* 56 (5): 416-422.
- . 2001. Big questions for a significant public administration. *Public Administration Review* 61 (2): 140-143.
- Kissinger, Henry A. 1957. *A world restored: Metternich, Castlereagh and the problems of peace 1812-1822*. Boston: Houghton Mifflin.
- Korten, David C. 2001a. The management of social transformation. In Camilla Stivers, ed., *Democracy, bureaucracy, and the study of administration*. Boulder: Westview Press, 476-497.
- . 2001b. *When corporations rule the world*. 2nd ed. Bloomfield, Conn.: Kumarian Press and Berrett-Koehler Publishers.
- Kovalick, Walter W. Jr., and Margaret M. Kelly. 1998. The EPA seeks its voice and role with citizens. In Cheryl Simrell King, Camilla Stivers, Richard Box, Linda Chapin, Dolores Foley, Joseph Gray, Ralph Hummel, Margaret Kelly, Walter

Kovalick, Jr., Renee Nank, Deborah Sagen, Mary Timney and Lisa Zanetti, eds., *Government is us: Public administration in an anti-government era*. Thousand Oaks, CA: Sage Publications, 122-139.

Krugman, Paul. 2003. *The great unraveling: Losing our way in the new century*. New York: W. W. Norton & Co.

Kuhn, Thomas S. 1996. *The structure of scientific revolutions*, 3rd. ed. Chicago: The University of Chicago Press.

LaBier, Douglas. 1989/2000. *Modern madness: The hidden link between work and emotional conflict*. Lincoln, NE: Authors Guild.

Lafferty, William M., and James Meadowcroft, eds. 2000. *Implementing sustainable development: Strategies and initiatives in high consumption societies*. Oxford: Oxford University Press.

Lambert, Barrie. 2002. Radiation: early warnings, late effects. In Poul Harremoes, David Gee, Malcolm MacGarvin, Andy Stirling, Jane Keys, Brian Wynne, and Sofia Guedes, Vas eds. *The precautionary principle in the 20th century*. London: Earthscan Publications, 26-34.

Lambright, W. Henry. 1994. Administrative entrepreneurship and space technology: The ups and downs of “mission to planet Earth”. *Public Administration Review* 54 (2): 97-104.

———. 1997. Cooperation: The U.S. Global Change Research Program. *Public Administration Review* 57 (1): 36-44.

———. 2008. Government and Science: A Troubled, Critical Relationship and What Can Be Done about It. *Public Administration Review* 68 (1): 5-18.

- . 1998. Downsizing big science: Strategic choices. *Public Administration Review* 58 (3): 259-268.
- Lancet, The*. 2001. Editorial: Climate change – the new bioterrorism. November 17 (358): 1657.
- Landsbergen, David Jr., and George Wolken Jr. 2001. Realizing the promise: Government information systems and the fourth generation of information technology. *Public Administration Review* 61 (2): 206-220.
- LaPorte, Todd R. 2001. Politics and “Inventing the Future”: Perspectives in science and government. Willa Bruce, ed., *Classics of administrative ethics*. Boulder, CO: Westview Press, 393-409.
- LaPorte, Todd R., and Ann Keller. 1996. Assuring institutional constancy: Requisite for managing long-lived hazards. *Public Administration Review* 56 (6): 535-544.
- Lash, Scott. 1994. Reflexivity and its doubles: Structures, aesthetics, community. In Ulrich Beck, Anthony Giddens, and Scott Lash, eds., *Reflexive modernization: Politics, tradition and aesthetics in the modern social order*. Stanford, CA: Stanford University Press, 110-173.
- . 2000. Risk culture. In Barbara Adam, Ulrich Beck, and Joost Van Loon, eds., *The risk society and beyond: Critical issues for social theory*. London: Sage Publications: 47-62.
- Lash, Scott, and Brian Wynne. 1992. Introd. to *Risk society: Toward a new modernity*, by Ulrich Beck. Trans. Mark Ritter. London: Sage Publications, 1-8.

- Le Van, Shanda K. 2003. *Integration, alignment, and sustainable governance: Analysis of sustainability initiatives from two west coast cities*. Master's Thesis. Eugene: University of Oregon.
- LeDuff, Charlie. 2002. Up, down, in and out in Beverly Hills: Rats. *The New York Times*, September 12. <http://www.nytimes.com/>.
- Leopold, Aldo. 1966. *A Sand County almanac*. New York: Ballantine.
- Leuenberger, Deniz Zeynep, and Michele Wakin. 2007. Sustainable Development in Public Administration Planning: An Exploration of Social Justice, Equity, and Citizen Inclusion. *Administrative Theory & Praxis* 29 (3): 394-411.
- Leuenberger, Deniz Zeynep, and John R. Bartle. 2009. *Sustainable Development for Public Administration*. Armonk, NY: M. E. Sharpe.
- Levitas, Ruth. 2000. Discourses of risk and utopia. In Barbara Adam, Ulrich Beck, and Joost Van Loon, eds., *The risk society and beyond: Critical issues for social theory*. London: Sage Publications: 198-210.
- Lewis, Carol. 2000. Efficiently taking soundings in a sea of change: Two histories of public budgeting and finance. Review of *Class, tax and power: Municipal budgeting in the United States*, by Irene S. Rubin; and *The origins of American public finance: Debates over money, debt, and taxes in the constitutional era, 1776-1836*, by Donald B. Stabile. *Public Administration Review* 60 (2): 183-185.
- Light, Paul. 1999. *The new public service*. Washington, D.C.: Brookings Institution.
- Lipschutz, Ronnie D. 2001. Ohmage to resistance. *Global Environmental Politics* 1 (1): 18-22.

- Little, John H. 1999. The new normativism and the discourse movement: Another perspective. *Administration Theory & Praxis* 21 (1): 128-133.
- Logan, John R., and Harvey L. Molotch. 1987. *Urban fortunes: The political economy of place*. Berkeley: University of California Press.
- Lovins, Amory B. 1977. *Soft energy paths: Toward a durable peace*. San Francisco: Friends of the Earth.
- . 1998. Energy lessons learned and to be learned: Verities that will astonish some and delight the rest. *Whole Earth*, Winter: 31.
- Lovins, Amory B., E. Kyle Datta, Odd-Even Bustnes, Jonathan G. Koomey, and Nathan J. Glasgow. 2004. *Winning the oil endgame: Innovation for profits, jobs, and security*. Snowmass, CO: Rocky Mountain Institute.
- Luterbacher, Urs and Detlef F. Sprinz, eds. 2001. *International relations and global climate change*. Cambridge, MA: The MIT Press.
- Luton, Larry S. 2001a. Symposium – ecological philosophy and public administration theory: Is an ecocentric public administration possible? *Administrative Theory & Praxis* 23 (1): 7-9.
- . 2001b. Pleistocenic public administration: The import of Paul Shepard's ecological philosophy for public administration. *Administrative Theory & Praxis* 23 (1): 67-82.
- Maccoby, Michael. 1976. *The gamesmen: The new corporate leaders*. New York: Simon and Schuster.

- MacDonald, Susan H. 2002. Globalization and risk: A contingent response for democratic governance. *Administrative Theory & Praxis* 24 (1): 31-54.
- Mander, Jerry. 1991. *In the absence of the sacred: The failure of technology and the survival of the Indian nations*. San Francisco: Sierra Club Books.
- Maniates, Michael F. 2001. Individualization: Plant a tree, buy a bike, save the world? *Global Environmental Politics* 1 (3): 31-52.
- Manning, Robert D. 2000. *Credit card nation: The consequences of America's addiction to credit*. New York: Basic Books.
- Manno, Jack. 2002. Commoditization: Consumption efficiency and an economy of care and connection. In Thomas Princen, Michael Maniates, and Ken Conca, eds., *Confronting Consumption*. Cambridge: The MIT Press, 67-99.
- Marini, Frank, ed. 1971. *Toward a new public administration*. New York: Chandler Publishing Company.
- Marshall, Christa. 2009. Does NASA's James Hansen Still Matter in Climate Debate? *The New York Times*, July 14. <http://www.nytimes.com/>.
- Marx, Karl. 1963. *The poverty of philosophy*. New York: International Publishers. (Orig. pub. 1847, with corrections for German editions 1885 and 1892.)
- McBeth, Mark K., and Randall S. Clemons. 1999. Postmodern policy analysis in the premodern west: Problem definition in the Yellowstone Bison case. *Administrative Theory & Praxis* 21 (2): 161-175.
- McDonough, William. 1998. Redesigning design itself. *Whole Earth*, Winter: 30.

- McDonough, William, and Michael Braungart. 1998. The next industrial revolution. *The Atlantic Monthly*, October: 82-92.
- . 2002. *Cradle to cradle: Remaking the way we make things*. New York: North Point Press.
- McGinn, Anne Platt. 2002. Malaria, mosquitoes, and DDT. *World Watch*, May/June: 10-16.
- McKibben, Bill. 2004. The submerging world. *Orion*, Sept.-Oct.: 26-33.
- McSwite, O. C. 1997. *Legitimacy in public administration: A discourse analysis*. Thousand Oaks, CA: Sage Publications.
- . 1998. The New Normativism and the Discourse Movement: A meditation. *Administrative Theory & Praxis* 20 (3): 377-381.
- . 2002. Moving on (legitimacy is over): Millennial consciousness and its potential. In Jong S. Jun, ed., *Rethinking administrative theory: The challenge of the new century*. Westport, CT: Praeger, 3-22.
- Meadows, D. H. 1994. Seeing the population issue whole. In L. A. Mazur, ed., *Beyond the numbers*. Washington, DC: Island Press, 23-32.
- . 1999. Chicken little, Cassandra, and the real wolf: So many ways to think about the future. *Whole Earth*, Spring: 106-111.
- Mercier, Jean. 1994. What level of government for ecologists? *Public Administration Review* 54 (4): 349-355.

- . 2009. Equity, Social Justice, and Sustainable Urban Transportation in the Twenty-First Century. *Administrative Theory & Praxis* 31 (2): 145-163.
- Merton, Robert K. 1997. Bureaucratic structure and personality. In Jay M. Shafritz and Albert C. Hyde, eds., *Classics of public administration*, 4th ed. Fort Worth, Harcourt Brace College Publishers, 100-108.
- Mieszkowski, Katharine. 2005. Dead movement walking? Roiled by harsh internal criticism and confronting four more years of Bush, environmentalists face a dark night of the soul. *Salon*, January 14. <http://salon.com/>.
- Miller, Charles and Andre Bouville. 2001. *A feasibility study of the health consequences to the American population from nuclear weapons tests conducted by the United States and other nations, Vol. 1*. Atlanta, GA: Department of Health and Human Services Centers for Disease Control and Prevention.
- Miller, Clark A., and Paul N. Edwards, eds. 2001. *Changing the atmosphere: Expert knowledge and environmental governance*. Cambridge, MA: The MIT Press.
- Miller, Hugh T. 2000. Rational discourse, memetics, and the autonomous liberal-humanist subject. *Administrative Theory & Praxis* 22 (1): 89-104.
- . 2004. Postmodern politics ain't beanbag: An elegy for Chuck Fox. *Administration & Society* 36 (4): 375-376.
- . 2007. Forward, in Dwight Waldo, *The Administrative State: A Study of the Political Theory of Public Administration*. New Brunswick: Transaction Publishers.

- Mitchell, Robert C. 1984. Public opinion and environmental politics in the 1970s and 1980s. In Norman J. Vig and Michael E. Kraft, eds., *Environmental Policy in the 1980s*. Washington, D.C.: Congressional Quarterly Press, 57-74.
- Mitchell, William J. 2000. *E-topia: "Urban life, Jim, but not as we know it."* London: The MIT Press.
- Molotch, Harvey. 1976. The city as a growth machine: Toward a political economy of place. *American Journal of Sociology* 82: 309-332.
- Montague, Peter. 2004. The chemical wars, Part 1. *Rachel's Environment & Health News*, August 18. <http://rachel.org/>.
- Morgan, D. F., and H. D. Kass. 1991. Constitutional stewardship, phronesis and the American administrative ethos. *Dialogue: The Public Administration Theory Network* 12 (1): 17-60.
- Mosher, Frederick C. 1982. *Democracy and the public service*. New York: Oxford University Press.
- Motluk, Alison. 2004. Doctors' dilemma. *New Scientist*, July 10: 38-41.
- Mythen, Gabe. 2004. *Ulrich Beck: A Critical Introduction to the Risk Society*. London: Pluto Press.
- Naess, Arne. 1989. *Ecology, community and lifestyle*. Trans. David Rothenberg. Cambridge: Cambridge University Press.
- Neihardt, John G. 1982. *Black Elk speaks: Being the life story of a holy man of the Oglala Sioux*. Lincoln: University of Nebraska Press.

- Nelson, Lisa S. 1999. Environment in the community, community in the environment. *Administrative Theory & Praxis* 21 (3): 354-361.
- Nelson, Lisa S., and Louis F. Weschler. 1996. Community sustainability as a dimension of administrative ethics. *Administrative Theory & Praxis* 18 (1): 13-26.
- . 2001. The watershed as a focus for public administration: Conventional and bioregional approaches. *Administrative Theory & Praxis* 23 (1): 10-24.
- NWEI. 2010. Portland, OR: Northwest Earth Institute. <http://www.nwei.org/>
- Neufeldt, Victoria, and David B. Guralnk. 1988. *Webster's new world dictionary of American English*. 3rd College Ed. New York: Simon & Schuster Inc.
- NEW. 2001. *This place on Earth 2001: Guide to a sustainable northwest*. Seattle: Northwest Environment Watch.
- . 2005. *Cascadia scorecard 2005: Focus on energy*. Seattle: Northwest Environment Watch.
- Nunn, Samuel. 2001. Police information technology: Assessing the effects of computerization on urban police functions. *Public Administration Review* 61 (2): 221-234.
- Obach, Brian K. 2004. *Labor and the environmental movement: The quest for common ground*. Cambridge, MA: The MIT Press.
- O'Brien, Mary. 2000. *Making better environmental decisions: An alternative to risk assessment*. Cambridge, MA: The MIT Press.

- OECD. 2000. *Greener public purchasing: Issues and practical solutions*. Paris: Organization for Economic Cooperation and Development.
- . 2002. *Toward sustainable household consumption? Trends and policies in OECD countries*. Paris: Organization for Economic Cooperation and Development.
- . 2008. *Household Behaviour and the Environment: Reviewing the Evidence*. Paris: Organization for Economic Cooperation and Development.
- Ogburn, William F. 1964. *On culture and social change: Selected papers*. Chicago: University of Chicago Press.
- Ogilvy, Jay. 2002. *Creating better futures: Scenario planning as a tool for a better tomorrow*. New York: Oxford University Press.
- O’Leary, Rosemary. 2006. *The Ethics of Dissent: Managing Guerilla Government*. Washington, D.C.: CQ Press.
- O’Leary, Rosemary, Robert Durant, Daniel Fiorino, and Paul Weiland. 1999. *Managing for the environment: Understanding the legal, organizational, and policy challenges*. San Francisco: Jossey-Bass Inc.
- Oreskes, Naomi. 2007. The Scientific Consensus on Climate Change: How Do We Know We’re Not Wrong? In Joseph F. C. DiMento and Pamela Douhman, eds., *Climate Change: What It Means for Us, Our Children, and Our Grandchildren*. London: MIT Press, 65-99.
- Ornstein, Robert, and Paul Ehrlich. 2000. *New world new mind: Moving toward conscious evolution*. Cambridge: Malor Books.

- Orr, David W. 1992. *Ecological literacy: Education and the transition to a postmodern world*. Albany: State University of New York Press.
- . 1994. *On education, environment, and the human prospect*. Washington, D.C.: Island Press.
- . 1998. So that all the other struggles may go on. *Oberlin Online*, January 30. http://www.oberlin.edu/news-info/98sep/orr's_observer_essay.html.
- . 2000. Saving future generations from global warming. *The Chronicle of Higher Education*, April 21: B7.
- . 2002. *The nature of design: Ecology, culture, and human intention*. Oxford: Oxford University Press.
- . 2004a. Law of the land: Can the most powerful nation on Earth throw off the shackles of an unforeseen tyranny? *Orion*, January/February: 19-25.
- . 2004b. *The last refuge: Patriotism, politics, and the environment in the age of terror*. Washington, D.C.: Island Press.
- Osborne, David, and Ted Gaebler. 1993. *Reinventing government: How the entrepreneurial spirit is transforming the public sector*. New York: Penguin Books.
- Pachauri, R.K. and Reisinger, A., eds., and Core Writing Team. 2007. *Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Geneva: Intergovernmental Panel on Climate Change.

- Paehlke, Robert C. 2004. Sustainability. In Robert F. Durant, Daniel J. Fiorino, and Rosemary O'Leary, eds., *Environmental governance reconsidered: Challenges, choices, and opportunities*. Cambridge, MA: The MIT Press, 35-67.
- Paehlke, Robert, and Douglas Torgerson, eds. 1990. *Managing leviathan: Environmental politics and the administrative state*. Peterborough, Ontario: Broadview Press Ltd.
- PAR. 2009. Comparative Chinese/American Public Administration. Eds. Marc Holzer and Mengzhong Zhang. Supplement to *Public Administration Review* 69.
- Parker, Martin. 2002. "Future challenges in organizational theory?" Amnesia and the production of ignorance. In Jong S. Jun, ed. *Rethinking administrative theory: The challenge of the new century*. Westport, CT: Praeger, 37-52.
- Parson, Edward A., with Rodney Dobell, Adam French, Donald Munton, and Heather Smith. 2001. Leading While Keeping in Step: Management of Global Atmospheric Issues in Canada. In The Social Learning Group, ed., *Learning to manage global environmental risks, Vol. 1: A comparative history of social responses to climate change, ozone depletion, and acid rain*. Cambridge, MA: The MIT Press, 235-258.
- Paterson, Matthew. 2001. Risky business: Insurance companies in global warming politics. *Global Environmental Politics* 1 (4): 18-42.
- Patterson, Patricia M. 2000. The talking cure and the silent treatment: Some limits of "discourse" as speech. *Administrative Theory & Praxis* 22 (4): 663-695.
- Pearce, Fred. 2004. Climate change heralds thirsty times ahead for most. *New Scientist*, May 22: 16-17.

- Peck, M. Scott. 1993. *A world waiting to be born: Civility rediscovered*. New York: Bantam Books.
- Perrow, Charles. 1984. *Normal accidents: Living with high-risk technologies*. New York: Basic Books Inc.
- . 1999. *Normal accidents: Living with high-risk technologies*. New Afterward and Postscript. Princeton, NJ: Princeton University Press.
- Pertschuk, Michael. 2001. *Smoke in their eyes: Lessons in movement leadership from the tobacco wars*. Nashville: Vanderbilt University Press.
- Pew Research Center. 2009. On Obama's Desk: Economy, Jobs Trump All Other Policy Priorities: Environment, Immigration, Health Care Slip Down the List. January 22, 2009. <http://pewresearch.org/pubs/1087/economy-jobs-top-public-priorities-2009>.
- Peters, B. Guy. 1996. *The future of governing: Four emerging models*. Lawrence, KS: University Press of Kansas.
- Phoenix, Chris, and Eric Drexler. 2004. Safe exponential manufacturing. *Nanotechnology* 15: 869-872.
- Pirages, Dennis. 2003. Building sustainable societies: The third revolution in human affairs. In Joel Jay Kassiola, ed., *Explorations in environmental political theory: Thinking about what we value*. Armonk, NY: M. E. Sharpe, 52-65.
- Polonsky, Marc. 2004. The Sun interview: Can the left get it right? *The Sun*, February: 4-11.

- Postman, Neil. 1993. *Technopoly: The surrender of culture to technology*. New York: Vintage Books.
- Prentice, Andrew M., and Susan A. Jebb. 2003. Fast foods, energy density and obesity: a possible mechanistic link. *Obesity Review* 4 (4): 187-194.
- Princen, Thomas. 2001. Consumption and its externalities: Where economy meets ecology. *Global Environmental Politics* 1 (3): 11-30.
- Princen, Thomas, Michael Maniates, and Ken Conca, eds. 2002. *Confronting consumption*. Cambridge, MA: The MIT Press.
- Prugh, Thomas, Robert Costanza, and Herman Daly. 2000. *The local politics of global sustainability*. Washington, D. C.: Island Press.
- Pye-Smith, Charlie. 2002. *The subsidy scandal: How your government wastes your money to wreck your environment*. London: Earthscan Publications.
- Raadschelders, Jos. 1999. A coherent framework for the study of public administration. *Journal of Public Administration Research and Theory* 9 (2): 281-303.
- . 2000. Understanding government in society: We see the trees, but could we see the forest? *Administrative Theory & Praxis* 22 (2): 192-225.
- Rabe, Barry G. 2002. *Greenhouse & statehouse: The evolving state government role in climate change*. Arlington, VA: Pew Center on Global Climate Change.
- Raffensperger, Carolyn, and Joel Tickner, eds. 1999. *Protecting public health and the environment*. Washington, D. C.: Island Press.
- Real Goods. 2010. Hopland, CA: <http://www.realgoods.com/>.

Reed, Christine M. 2001. Pastoral, progressive and postmodern ideas in environmental political thought: Restoring agency to nature. *Administrative Theory & Praxis* 23 (1): 39-52.

Reguly, Eric, and Nathan Vanderklippe. 2009. 'Dirty' image puts Canada in climate doghouse at Copenhagen. *The Globe and Mail*, December 6.
<http://www.theglobeandmail.com/news/world/climate-change/dirty-image-puts-canada-in-climate-doghouse-at-copenhagen/article1390657/>.

Reiber, Derek. 2002a. New Oregon energy trust brings solid funding to clean energy. *Tidepool*, November 11. <http://tidepool.org/greentide/greent.cfm>

———. 2002b. Making change with local currencies: Communities seek out alternatives to the global economy by printing their own money, setting up trading systems. *Tidepool*, December 12.
<http://www.tidepool.org/features/currency.cfm>.

Renn, Ortwin. 1997. *The demise of the risk society*. Paper presented at the Annual Meeting of the American Sociological Association, Toronto, Canada.

Repetto, Robert. 1986. *World enough and time*. New Haven: Yale University Press.

Rest, James R., Darcia Narvaez, Muriel J. Bebeau, Stephen J. Thoma, eds. 1999. *Postconventional moral thinking: A neo-Kohlbergian approach*. Mahwah, NJ: Lawrence Erlbaum Associates.

Reuters. 2005. Climate changes spur plan for Alaska village move. *Planet Ark*, June 10.
<http://planetark.com/dailynewsstory.cfm/newsid/31200/story.htm>.

Reuveny, Rafael. 2002. Economic growth, environmental scarcity, and conflict. *Global Environmental Politics* 2 (1): 83-110.

Revkin, Andrew C. 2002a. Government outlines plan for research on warming. *The New York Times*, November 13. <http://www.nytimes.com/>.

———. 2002b. Can global warming be studied too much? *The New York Times*, December 3. <http://www.nytimes.com/>.

———. 2003a. Global warming: All that hot air must be having an effect. *The New York Times*, January 12. <http://www.nytimes.com/>.

———. 2003b. Into thin air: Kyoto accord may not die (or matter). *The New York Times*, December 4. <http://www.nytimes.com/>.

———. 2004. 8 states sue biggest emitters of carbon dioxide. *The New York Times*, July 21. <http://www.nytimes.com/>.

———. 2008. NASA Office Is Criticized on Climate Reports. *The New York Times*, June 3. <http://www.nytimes.com/>.

Rifkin, Jeremy. 2002. *The hydrogen economy: The creation of the world-wide energy web and the redistribution of power on Earth*. New York: Jeremy P. Tarcher / Putnam.

Ritzer, George. 2004. *The McDonaldization of society*. New Century edition. Thousand Oaks, CA: Pine Forge Press.

———. 2005. *Enchanting a disenchanted world: Revolutionizing the means of consumption*. 2nd ed. Thousand Oaks, CA: Pine Forge Press.

- Roberts, Alasdair. 1994. Demonstrating neutrality: The Rockefeller philanthropies and the evolution of public administration, 1927-1936. *Public Administration Review* 54 (3): 221-228.
- Rodgers, Robert, and Nanette Rodgers. 2000. Defining the boundaries of public administration: Undisciplined mongrels versus disciplined purists. *Public Administration Review* 60 (5): 435-445.
- Rogers, Everett M. 1983. *Diffusion of innovations*, 3rd ed. New York: The Free Press.
- Rohr, John A. 1986. *To run a constitution: The legitimacy of the administrative state*. Kansas City: University Press of Kansas.
- Roseland, Mark. 1998. *Toward sustainable communities: Resources for citizens and their governments*. Gabriola Island, BC: New Society Publishers.
- Rosenbloom, David H. 1983. Public administration theory and the separation of powers. *Public Administration Review* 43 (3): 219-227.
- Rosenau, J. 1992. Governance, order and change in world politics. In J. Rosenau and E. Czmpiel, eds., *Governance without government: Order and change in world politics*. New York: Cambridge University Press, 1-29.
- Rosenbloom, David H., and Howard E. McCurdy, eds. 2007. *Revisiting Waldo's Administrative State: Constancy and Change in Public Administration*. Washington, D.C.: Georgetown University Press.
- Rosenstock-Huessy, Eugen. 1969. *Out of revolution*. Norwich, VT: Argo.
- Roszak, Theodore. 2001. *The voice of the Earth: An exploration of ecopsychology*. Grand Rapids, MI: Phanes Press Inc.

- Russell, David. 2004. Imprecision of the phrase “global warming”. Comment No. 1 filed under “Climate Science,” *RealClimate*, December 31.
<http://www.realclimate.org/>.
- Ryan, John C., and Alan Thein Durning. 1997. *Stuff: The secret lives of everyday things*. Seattle: Northwest Environment Watch.
- Salmi, Steven T. 1998. Three reasons why global warming poses serious challenges to public administration. *PA Times*, August: 10.
- . 2000. Administrative evil in an emerging risk society: Four conceptual challenges. Conference paper presented at the Public Administration Theory Network conference, Fort Lauderdale: Jan. 28-29.
- Samuelson, Robert J. 2004. Attorney generals’ hot air. *Washington Post*, August 11: A21.
- . 2006. Global Warming’s Real Inconvenient Truth. *Washington Post*, July 5: A13.
- Schachter, Hindy Lauer. 1996. *Reinventing government or reinventing ourselves*. Albany: State University of New York Press.
- Schaef, Anne Wilson. 1987. *When society becomes an addict*. New York: HarperCollins Publishers.
- Schaef, Anne Wilson, and Diane Fassel. 1988. *The addictive organization*. New York: Harper & Row.

- Scheer, Hermann. 2004. *The solar economy: Renewable energy for a sustainable global future*. London: Earthscan.
- Schimank, Uwe. 1992. Science as a societal risk producer. In Nico Stehr and Richard V. Ericson, eds., *The culture and power of knowledge*. Berlin: Walter de Gruyter.
- Schlosser, Eric. 2002. *Fast food nation: The dark side of the all-American meal*. New York: HarperCollins Publishers.
- Schor, Juliet B. 1992. *The overworked American: The unexpected decline of leisure*. New York: Basic Books.
- . 1998. *The overspent American: Why we want what we don't need*. New York: HarperPerennial.
- Scott, Alan. 2000. Risk society or angst society? Two views of risk, consciousness and community. In Barbara Adam, Ulrich Beck, and Joost Van Loon, eds., *The risk society and beyond: Critical issues for social theory*. London: Sage Publications, 33-46.
- Scott, William G., and David K. Hart. 1979. *Organizational America*. Boston: Houghton Mifflin.
- . 2001. Administrative crisis: The neglect of metaphysical speculation. In Willa Bruce, ed., *Classics of administrative ethics*. Boulder, CO: Westview Press, 408-423.
- Segal, Howard P. 1985. *Technological utopianism in American culture*. Chicago: University of Chicago Press.

- Selznick, Philip. 1957. *Leadership in administration: A sociological interpretation*. New York: Harper & Row, Publishers.
- . 1966/1949. *TVA and the grassroots: A study in the sociology of formal organization*. New York: Harper Torchbooks.
- Senge, Peter M. 1990. *The fifth discipline: The art and practice of the learning organization*. New York: Currency Doubleday.
- Senge, Peter, Art Kleiner, Charlotte Roberts, Richard Ross, George Roth, and Bryan Smith. 1999. *The Dance of change: The challenge of sustaining momentum in learning organizations*. New York: Doubleday.
- Service, Robert K. 2004. The carbon conundrum. *Science*, August 13: 962-963.
- Shellenberger, Michael, and Ted Nordhaus. 2004. *The death of environmentalism: Global warming politics in a post-environmental world*. Washington, D. C.: Breakthrough Institute.
- . 2005. The death of environmentalism. *The Sun*, February (350): 12-15.
- Shepard, Paul. 1982. *Nature and madness*. San Francisco: Sierra Club Books.
- Sievers, Burkard. 1999. Psychotic organization as a metaphoric frame for the socioanalysis of organizational and interorganizational dynamics. *Administration & Society* 31 (5): 588-615.
- Simmel, Georg. 1969. The metropolis and mental life. In Richard Sennett, ed., *Classic essays on the culture of cities*. New York: Cornell University Press: 47-60.

- Simon, Herbert A. 1976. *Administrative behavior: A study of decision-making processes in administrative organization*. 3rd ed. New York: Macmillan.
- Simon, Julian L. 1998. Scarcity or abundance? In L. Westra and P. H. Werhane, eds. *The business of Consumption*. Lanham: Rowman and Littlefield, 237-245.
- Sinclair, Upton. 1974/1946. *The jungle*. Cambridge: R. Bentley.
- Smith, Merrit Roe, and Leo Marx. 1994. *Does technology drive history? The dilemma of technological determinism*. Cambridge: The MIT Press.
- Snyder, Gary. 1998. Wilderness & civilization: Nature as seen from Kitkitdizze is no “social construction.” *Whole Earth*, Winter: 22.
- Social Learning Group. 2001. *Learning to manage global environmental risks, Vol. 1: A comparative history of social responses to climate change, ozone depletion, and acid rain*. Cambridge, MA: The MIT Press.
- Spicer, Michael W. 2001. *Public administration and the state: A postmodern perspective*. Tuscaloosa: The University of Alabama Press.
- Stillman, Richard. J. II. 1982. The changing patterns of public administration theory in America. In J. A. Uveges, ed., *Public administration: History and theory in contemporary perspective*. New York: Marcel Dekker, 5-37.
- . 2001. Toward a new agenda for administrative state research? A response to Mark Rutger’s “traditional flavors?” essay. *Administration & Society* 33 (4): 480-488.
- Stivers, Camilla. 1990. The public agency as polis: Active citizenship in the administrative state. *Administration & Society* 22 (1): 86-105.

- . 1996. Refusing to get it right: Citizenship, difference, and the refounding project. In Gary Wamsley and James Wolf, eds., *Refounding democratic public administration: Modern paradoxes, postmodern challenges*. Thousand Oaks, CA: Sage Publications, 260-278.
- . 2000a. *Bureau men, settlement women: Constructing public administration in the progressive era*. Lawrence, KS: University Press of Kansas.
- . 2000b. Public administration theory as a discourse. *Administrative Theory & Praxis* 22 (1): 132-139.
- . 2000c. Resisting the ascendancy of public management: Normative theory and public administration. *Administrative Theory & Praxis* 22 (1): 10-23.
- . 2000d. “An impossible job”: Report on the building bridges tour. *Public Administration Review* 60 (3): 194-199.
- Stivers, Camilla, Cheryl Simrell King, and Renee Nank. 1998. Citizenship and its discontents: The political and economic context. In Cheryl Simrell King, Camilla Stivers, Richard Box, Linda Chapin, Dolores Foley, Joseph Gray, Ralph Hummel, Margaret Kelly, Walter Kovalick, Jr., Renee Nank, Deborah Sagen, Mary Timney and Lisa Zanetti, eds. *Government is us: Public administration in an anti-government era*. Thousand Oaks, CA: Sage Publications, 102-121.
- Stoffer, Harry. 2003. Vehicles gain power but not fuel economy: EPA report sets stage for energy bill. *Automotive News*, May 12: 1, 50.
- Sturm R., and D. A. Cohen. 2004. Urban sprawl and physical and mental health. *Public Health* 188: 488-496.

- Tainter, Joseph A. 1988. *The collapse of complex societies*. Cambridge: Cambridge University Press.
- Terry, Larry D. 1995. *Leadership of public bureaucracies: The administrator as conservator*. Thousand Oaks, CA: Sage Publications.
- . 1998. Administrative leadership, neo-managerialism, and the public management movement. *Public Administration Review* 58 (3): 194-200.
- . 2003. *Leadership of public bureaucracies: The administrator as conservator*. 2nd ed. Armonk, N. Y.: M. E. Sharpe.
- Thayer, F. 1981. *An end to hierarchy and competition: Administration in the post-affluent world*. 2nd ed. New York: Franklin Watts.
- Theobald, R. 1987. *The rapids of change: Social entrepreneurship in turbulent times*. Indianapolis: Knowledge Systems.
- . 1997. *Reworking success: New communities at the millennium*. Gabriola Island: New Society Publishers.
- Thornton, Joe. 2000. *Pandora's poison: Chlorine, health, and a new environmental strategy*. Cambridge, MA: MIT Press.
- Timney Bailey, Mary. 1989. Minnowbrook II: An end or a new beginning? *Public Administration Review* 49 (2): 224-225.
- Timney, Mary M. 2001. Eco-nomics: Toward a theory of value for public administration. *Administration Theory & Praxis* 23 (1): 25-38.

- . 2005. Why States Must Develop Comprehensive Energy Policies. *PA Times*, November: 4, 9.
- Tobis, Michael. 2004. Imprecision of the phrase “global warming”. Filed under “Climate Science,” *RealClimate*. December 31, <http://www.realclimate.org/>.
- Toffler, Alvin. 1970. *Future shock*. New York: Random House.
- Toulmin, Stephen. 1972. *Human understanding, vol. 1*. Princeton: Princeton University Press.
- Tucker, Robert C., ed. 1978/1972. *The Marx-Engels reader*. 2nd ed. New York: W. W. Norton & Co.
- Turner, Frederick Jackson. 1894. *The frontier in American history*. Washington, D.C.: Government Printing Office.
- UNEP. 2002. *Global environment outlook 3: Past, present and future perspectives*. London: Earthscan Publications Ltd.
- Uveges, Joseph A., and Lawrence F. Keller. 1998. One hundred years of American public administration and counting: Moving into a second century in the study and practice of public management in American life. In Jack Rabin, W. Bartley Hildreth and Gerald J. Miller, eds. *Handbook of public administration*. 2nd ed. New York: Marcel Dekker Inc.
- Van Valen, L. 1973. A new evolutionary law. *Evolutionary Theory* 1: 1-30.
- Veblen, Thorstein. 1994. *The theory of the leisure class*. New York: Dover Publications Inc.

- Ventriss, Curtis. 1998a. Swimming against the tide: Reflections on some recent theoretical approaches of public administration theory. *Administrative Theory & Praxis* 20 (1): 91-101.
- . 1998b. Radical democratic thought and contemporary public administration: A substantive perspective. *American Review of Public Administration* 28 (3): 227-245.
- . 2000. Emerging issues in environmental thought and management: Where do we go from here? *Journal of Public Affairs Education* 6 (2): 115-121.
- . 2002. The rise of the entrepreneurial state governments in the United States: The dilemma of public governance in an era of globalization. *Administrative Theory & Praxis* 24 (1): 81-102.
- Victor, David G. 2001. *The collapse of the Kyoto Protocol and the struggle to slow global warming*. Princeton: Princeton University Press.
- Victors, Margaret H. 2006. A Guide to Grief in Public Administration. *Administrative Theory & Praxis* 28 (2): 245-261.
- Wachtel, Paul L. 1989. *The Poverty of affluence: A psychological portrait of the American way of life*. Philadelphia, PA: New Society Publishers.
- Wackernagel, Mathis, and W. Rees. 1996. *Our ecological footprint: Reducing human impact on Earth*. Gabriola Island, BC: New Society Publishers.
- Wackernagel, Mathis, and Niels B. Schulz, Diana Deumling, Alejandro Callejas Linares, Martin Jenkins, Valerie Kapos, Chad Monfreda, Jonathan Loh, Norman Myers, Richard Norgaard, and Jorgen Randers. 2002. Tracking the ecological overshoot

of the human economy. *Proceedings of the National Academy of Sciences* 99(14): 9266-9271.

Wagenaar, Hendrik. 2002. In the shadow of hierarchy: Deliberative democracy and public administration. Review of *Deliberative Practitioner: Encouraging Participatory Planning Processes*, by John Forester. *Administrative Theory & Praxis* 24 (1): 231-250.

Waldo, Dwight. 1965. The administrative state revisited. *Public Administration Review* 25 (1): 5-15.

———. 1968. Scope of the theory of public administration. In James C. Charlesworth, ed. *Theory and practice of public administration*. Philadelphia: American Academy of Political and Social Science, 1-26.

———. 1984. *The administrative state: A study of the political theory of public administration*. 2nd ed. New York: Holmes & Meier Publishers.

———. 1987. Politics and administration: On thinking about a complex relationship. In Ralph C. Chandler, ed., *A centennial history of the American administrative state*. New York: Free Press, 89-112.

———. 2007. *The administrative state: A study of the political theory of public administration*. New Brunswick, NJ: Transaction Publishers.

Wall, Brent. 1991. Assessing ethical theories from a democratic viewpoint. In James Bowman, ed., *Ethical frontiers in public management*. San Francisco: Jossey-Bass, 135-157.

- Walling, Peter. 2004. Imprecision of the phrase “global warming”. Comment No. 7 filed under “Climate Science,” *RealClimate*, December 31.
<http://www.realclimate.org>.
- Walsh, Tom. 2002. What would Jesus drive? Oh please. *Detroit Free Press*, November 22. <http://www.freep.com/section/COL06/Tom-Walsh>.
- Walters, Mark Jerome. 2003. *Six modern plagues and how we are causing them*. Washington, D.C: Island Press.
- Wamsley, Gary L., Robert N. Bacher, Charles T. Goodsell, Philip S. Kronenberg, John A. Rohr, Camilla M Stivers, Orion F. White, and James F. Wolf. 1990. *Refounding public administration*. Newbury Park: Sage Publications.
- Wamsley, Gary, and James Wolf, eds. 1996. *Refounding democratic public administration: Modern paradoxes, postmodern Challenges*. Thousand Oaks, CA: Sage Publications.
- Warner, Keith W., and Lynn J. England. 1995. A technological science perspective for sociology. *Rural Sociology* 60: 607-622.
- Warner, Kee, and Harvey Molotch. 1995. *Building rules: How local controls shape community environments and economies*. Boulder, CO: Westview Press.
- Warren, Karen J. 2000. *Ecofeminist philosophy: A western perspective on what it is and why it matters*. Landham, Maryland: Rowman & Littlefield Publishers.
- Watson, Robert T., Marufu C. Zinyowera, Richard H. Moss, and David J. Dokken, eds. 1998. *The regional impacts of climate change: An assessment of vulnerability*. Cambridge, UK: Cambridge University Press.

- Watson, Robert T., and the Core Writing Team, eds. 2001. *Climate change 2001: Synthesis report*. New York: Cambridge University Press.
- Weart, Spencer R. 2003. *The discovery of global warming*. London: Harvard University Press.
- Weber, Edward P. 2003. *Bringing society back in: Grassroots ecosystem management, accountability, and sustainable communities*. Cambridge, MA: The MIT Press.
- Weber, Max. 1958. *The protestant ethic and the spirit of capitalism*. New York: Scribner's.
- White, Curtis. 2003. *The middle mind: Why Americans don't think for themselves*. San Francisco: HarperCollins Publishers.
- White, Jay D., and Guy B. Adams. 1994. *Research in public administration: Reflections on theory and practice*. Thousand Oaks, CA: Sage Publications.
- Whitt, Laurie Anne, Mere Roberts, Waerete Norman, and Vicki Grieves. 2003. Indigenous perspectives. In Dale Jamieson, ed., *A companion to environmental philosophy*. Malden, MA: Blackwell Publishing Ltd, 3-20.
- Williams, Daniel W. 2000. Reinventing the proverbs of government. *Public Administration Review* 60 (6): 522-534.
- Williams, Florence. 2005. First person: Toxic breast milk? *The New York Times Magazine*, January 9. <http://www.nytimes.com/>.
- Williams, Rosalind. 1982. *Dream worlds: Mass consumption in late nineteenth-century France*. Berkeley: University of California Press.

- Wilson, Edward O. 1998. *Consilience: The unity of knowledge*. New York: Alfred A. Knopf.
- . 2002. *The future of life*. New York: Alfred A. Knopf.
- Wilson, James Q. 1989. *Bureaucracy: What government agencies do and why they do it*. United States: Basic Books Inc.
- Wilson, Woodrow. 1887. The study of administration. *Political Science Quarterly* 2 (2): 197-222.
- Winner, Langdon. 1986. *The whale and the reactor: A search for limits in an age of high technology*. Chicago: University of Chicago Press.
- Wise, Charles, and Rania Nader. 2002. Organizing the federal system for homeland security: Problems, issues, and dilemmas. *Public Administration Review* 62 (Special Issue): 44-57.
- Wisensale, Steven K. 1999. Grappling with the generational equity debate: An ongoing challenge for the public administrator. *Public Integrity* 1(1): 1-19.
- Witt, April. 2003. Acquiring minds: Inside America's all-consuming passion. *Washington Post Magazine*, December 14: W14.
- Woodward, Steve. 2004. One cow, hundreds of uses. *The Oregonian*, January 1. <http://www.oregonlive.com/>.
- World Commission on Environment and Development. 1987. *Our common future*. New York: Oxford University Press.

Yates, Brock. 1983. *The decline and fall of the American automobile industry*. New York: Empire Books.

Zanetti, Lisa A., and Adrian Carr. 1997. Putting critical theory to work: Giving the public administrator the critical edge. *Administrative Theory & Praxis* 19 (2): 208-224.

Zwanenberg, Patrick van, and Erik Millstone. 2002. "Mad cow disease" 1980s-2000: how reassurances undermined precaution. In Poul Harremoes, David Gee, Malcolm MacGarvin, Andy Stirling, Jane Keys, Brian Wynne, and Sofia Guedes Vas eds., *The precautionary principle in the 20th century*. London: Earthscan Publications, 170-184.