Book Reviews

Science and the Presidency

Presidential Management of Science and Technology. The Johnson Presidency. W. HENRY LAMBRIGHT. University of Texas Press, Austin, 1985. xiv, 224 pp. $25. Administrative History of the Johnson Presidency.

In many ways, the Executive Office of the President is the most difficult governmental institution to study. Members of Congress vote, represent constituencies with relatively easily identified interests, and accomplish their objectives by making written proposals in a formal decision-making process. Judges write opinions in which they are called upon to defend the basis for decisions. Even bureaucrats face the full gamut of procedural requirements that apply to their particular domains whenever they agree to a contract, promulgate a regulation, or make a grant. Within the presidency—that is, the president and the collection of officials who have his trust—the forces driving the decision process are far murkier. The presidency is a dictatorship, but a largely unmanageable one that requires considerable delegation of responsibility and authority. Written trails are left about the reasons for a decision, but the allocation of true influence among the players and the key arguments that tipped the balance are usually very difficult to identify.

W. Henry Lambright has, therefore, taken on a formidable task in trying to explain how science and technology policy was made and implemented during the Johnson Administration. The purpose of his book is to address certain key issues about science policy: how and why certain issues become important, the role of the president in prioritizing issues, causing policies to be adopted, and shepherding the implementation, continuation, and perhaps eventual termination of a policy. Lambright also seeks to assess the influence of the president's science adviser and the overall science and technology policy that emerges from the "technoscience presidency"—that is, the president and the collection of major players in the executive branch on science policy issues.

Not surprisingly, Lambright's conclusions are largely negative and pessimistic. He finds science policy in and since the Johnson Administration to be chaotic and inconsistent because it is fragmented. Instead of connecting science policy to broader social objectives regarding research, technology, and education and centralizing its management to promote coherency, Johnson and his successors dispersed programmatic initiatives and control on a program-by-program basis largely in response to short-term crises and fads. Johnson apparently viewed the role of science and technology as being to provide a "technical fix" to the problem of the moment, whether it be infiltration of North Vietnamese into South Vietnam, the commitment to put a man on the moon, the slow pace of productivity growth in the construction industry, or the Northeast power blackout. The general health of science and the state of the nation's technological base, or simple intellectual curiosity about how the world works that was unconnected to a current problem, would, if offered as a rationale for a program, cause the presidential eyes to glaze.

Lambright believes that the president's science adviser is the logical, if not the only, candidate to provide coherency and integration for science and technology policy. Only the science adviser has the knowledge base and the connections to external constituencies to perform this function. But to accomplish this task, the science adviser has to be a member of the president's inner circle of advisers. Unfortunately, in the Johnson Administration and subsequently the science adviser has not had this status. In asking why this has turned out to be the case, Lambright provides the following answers: (i) science policy was too complicated and busy to be handled by the tiny Office of Science and Technology; (ii) the institutional role of the science adviser in relation to Congress, the Bureau of the Budget, and the scientific community undermined its role as internal adviser by making it also an advocate of certain programs and a contact point with politically important constituencies; and (iii) the personal relationship between the president and his science adviser generally has not been strong. Lambright assigns primary importance to the institutional role and concludes by exhorting the president to fix it.

> What is needed is an approach that reflects both discipline and breadth. To have such a strategy requires a president who is oriented to the future. That is, it requires one who consciously seeks to shape the future and sees science and technology as a means of doing it. . . . If his eye was toward the future, he would have science and technology at the forefront of his thinking. . . . The foresight and skills of the president remain the key to any presidency [p. 190].

Certainly this book will prove interesting to readers who care about science and technology policy, especially those who have had relatively little exposure to the general scholarly literature on the presidency. Its method—a detailed classification of the steps of the decision-making process with examples from 24 policies that were considered or managed during the Johnson Administration—will bring some organization and structure to a complex domain of policy. The principal features of the book that are not to my taste are the absence of a systematic treatment of the 24 cases, the failure to explain in detail what a satisfactory science and technology policy would amount to in terms of coverage and performance, and the rather limp conclusion cited above. If for decades the nation has lacked a coherent science policy then the problem assuredly runs deeper than a need for exhorting presidents to have a clearer vision of the future. Moreover, if a philosopher-king ever does become president, he will need some guidelines on how better to organize the techno-science presidency and to bring order to the chaos without losing substantive political control to his scientific advisers. The book does not help us very much in understanding why presidents systematically underestimate the importance of science (assuming that they do), or how the system could be made to work better, or even how to recognize an improvement in its performance. Its principal contribution is to show where and how Johnson intervened decisively to alter the course of science policy and what roles were played by his underlings.

ROGER NOLL
Department of Economics, Stanford University, Stanford, CA 94305

Guiding Values

Habits of the Heart. Individualism and Commitment in American Life. ROBERT N. BELLAH, RICHARD MADSEN, WILLIAM M. SULLIVAN, ANN SWIDLER, AND STEVEN M. TIPTON. University of California Press, Berkeley, 1985. xiv, 355 pp. $16.95.

Habits of the Heart is part of a sociological tradition that sees American culture in crisis, analyzes the causes of that crisis, and calls for a spiritual renewal to redirect our lives. The crisis here is not fundamentally economic or political but personal. *Habits of the Heart* is directed at the problem of how Americans can construct some ultimate meaning for their personal lives. Its basic argument is classically sociological: People can construct meaning only from the cultural resources available in their society, resources that let them view their personal activities as contributing to some collective goal. In societies with a dominant religious goal, political crusade, or kinship tradition, people make sense of their daily lives by interpreting their activities as contributing to these ends. Modernization eliminates such cultural resources and makes the construction of meaning difficult. This is especially so in the United States, where the dominant culture

is that of individualism, in the sense not simply that people are important but that the individual is seen as the ultimate source of value and meaning. In America, a person's career, religion, politics, spouse, children, and life-style are supposed to reflect his or her own purposes, motives, and desires and be valuable because they raise the person's sense of self-worth through furthering personal growth.

Habits of the Heart (the phrase is de Tocqueville's term for the mores and traditions of a nation) argues that the original individualism for which the United States was celebrated did provide meaning for people's lives, because individual fulfillment was seen as tied to the creation of a valued religious and political community. Economic careerism and independent political activity were viewed as important parts of the evolving society, and commitment to self was thus also commitment to collective goals. But these biblical and republican traditions of individualism have eroded into instrumental and expressive individualism that takes the form of a never-ending search for a self-activated self. Now "the individual can only rarely and with difficulty understand himself and his activities as interrelated in morally meaningful ways with those of other, different Americans" (p. 50).

This analysis is structured around conversations with 200 white middle-class Americans in which the authors talked with them about their careers, families, life-styles, and understanding of their own lives. Much of the analysis centers on work as the core of the crisis. The authors find, as have many before them, that people tend to work for success in accumulating power, money, and position but not for the substance or end of work itself. There is no sense of "calling" for people in their work, and so work provides no sense of meaning or commitment to a community of others. Other studies in this tradition that have reached this conclusion have argued that individuals can compensate for the lack of meaning provided by work through emphasis on family, religion, politics, or life-style. *Habits of the Heart* finds that the problem is not so simply solved.

The book analyzes these other activities to show how instrumental and expressive individualism dominates them too. Rich and insightful analyses of love and marriage, life-style enclaves, modern therapy, religion, and political movements are developed from the interviews to show how these enterprises have been organized to preclude the development of the kind of community commitments that give meaning to people's personal lives. Marriage and family reflect instrumental and expressive calculations where commitments are only as strong as the cost-benefit balance sheet. The social relationships considered healthy in therapy are those based on a calculus of what feels good and is personally fulfilling. Life-style enclaves, touted as communities of self-expression, separate private lives from public ones and so segregate their members rather than integrate them into a larger moral community. And religion and politics are too much organized as communities of support for the individual rather than as collectivities with purposes of their own.

For models of cultural renewal the authors look to "those who have defined their lives by their relationships and commitments to larger wholes, those who have attempted to articulate a socially responsible individualism; as opposed to a self based on the notion of pure, undetermined choice, free of tradition, obligation, or commitment" (p. 155).

How good an analysis is presented in *Habits of the Heart*? The authors' self-conscious claims about the importance of the work rest to a large extent on their wanting to create a dialogue in which social science transcends its academic bounds and becomes part of public philosophy. Its methodology of using conversations and the engaging style of its writing could further that goal.

But if *Habits of the Heart* is to succeed as public philosophy it needs also to succeed as sociology. Here it fails, for its argument has been developed in disregard of major contributions made in the analysis of culture. Cultural resources derive from a society's particular material basis and from the organization of its politics. Since the work of Karl Polanyi, sociologists have understood well how the culture of individualism derives from a market economy and how the absence of a strong political center intensifies such individualism. But the analysis in *Habits of the Heart* proceeds as if our society's culture of individualism develops independently of its economic and political organization.

Consequently, the authors' program for cultural renewal has a naive ring: We must change the climate in which business operates to encourage new initiatives in economic democracy and social responsibility; we must return to the idea of work as a calling and as a contribution to the good of all; we must reduce the extrinsic rewards and punishments of work to make vocational choices more in terms of intrinsic satisfactions; we should use our accumulated wealth to revive craft production; and we should heal the split between public and private, work and family, by making the ethos of work less brutally competitive and more ecologically harmonious (pp. 275–296).

But our society is built on an economic system in which production occurs for profit, not for social responsibility. Work is brutally competitive because the mechanism of a market is competition. Work is organized by extrinsic and not intrinsic rewards because in a market system price determines value, and people are forced to judge their worth by their income. This culture of instrumental and expressive individualism, which the authors of *Habits of the Heart* argue has become self-destructive, reflects the material reality in which we live, the logical working out of what Polanyi termed the market mentality. Analysis of this culture as if it is divorced from our market system itself cannot advance the cause of a public philosophy.

RICHARD RUBINSON
Department of Sociology, Florida State Univerity, Tallahassee 32306-2011

History of Technology Contextualized

Technology's Storytellers. Reweaving the Human Fabric. JOHN M. STAUDENMAIER. Society for the History of Technology and MIT Press, Cambridge, MA, 1985. xxx, 282 pp. $35.

This book is based on an unlikely recipe. Take all the articles published in a single academic journal, *Technology and Culture*, during its first 20 years, 1959–1980. Sort through these pieces noticing the key themes and controversies that have engaged the contributing scholars during that period. Analyze the whole collection as a single body of work. See what this tells you about the proper way to study the history of technology.

If the same method were applied to most scholarly journals, each book would have to be sold with a box of extra-strength pain reliever. Fortunately, John Staudenmaier's efforts have produced entirely palatable results. *Technology's Storytellers* is a lucid, richly detailed review of attempts to establish the history of technology as a fully respectable research field.

Well into the 1950's much of the historical literature on technology lacked methodological and intellectual depth. Many books were simply laudatory tales of ingenious men and their wonderful inventions leading humanity ever forward along the path of "progress." The dominant style was that of "Whig history," in which past developments were shown to lead inevitably to a glorious present. Attempts at more careful study erred by being too narrowly focused, anti-