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Portals of Democracy in American Bureaucracy

> "[K]nowledge is no longer an immobile solid; it has been liquefied; it is actively moving in all the currents of society itself."
>
> John Dewey[1]

> "Advisory committees can be of great value. They contribute to the "openness" of Governmental decision-making, and provide advice and information not otherwise available to the Government. Their functions range from providing policy advice on major national issues, to providing technical recommendations on particular problems."
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> Federal Advisory Committees: Sixth Annual Report of the President, 1978

"Imagine planning your day around your life, instead of your osteoarthritis pain," enticed Merck's advertising campaign for Vioxx, its blockbuster arthritis drug. The drug Merck promoted "for everyday victories" soon became a symbol of regulatory failure as evidence emerged linking Vioxx with serious cardiovascular side effects and deaths. At the beginning of Senate hearings convened in 2004 to investigate Vioxx's withdrawal from the market, Senator Charles Grassley (R-IA) alleged that the FDA had "allowed itself to be manipulated by Merck" and, more broadly, that "the FDA has a relationship with drug companies that is far too cozy."[2] The remedy for coziness with industry and for regulatory failure, Senator Grassley continued, would include "changes inside the FDA that [would] result in greater transparency and greater openness." In its 2007 review of American drug safety, the Institute

[1] John Dewey, *The School and Society and The Child and the Curriculum* (Chicago: University of Chicago Press, 1956), p. 25.

[2] Statement of Senator Charles E. Grassley (R-IA), U.S. Congress, Senate, Committee on Finance, *FDA, Merck, and Vioxx: Putting Patient Safety First?* 108th Congress, 2nd Session, November 18, 2004 (Washington, DC: Government Printing Office, 2004), p. 3.

of Medicine (IOM) similarly claimed, "the FDA's reputation has been hurt by a perceived lack of transparency and accountability to the public."[3] As part of its package of proposals to improve the agency's impaired reputation, the Institute of Medicine called on the FDA to make greater use of its public advisory committees – groups of nongovernmental medical practitioners, researchers, and stakeholder representatives that the FDA consults on matters such as drug approval and labeling – to supplement agency expertise and to enhance transparency in the drug approval process. These proposals suggested public engagement could render FDA decisions both more accountable and less prone to regulatory failure.

The FDA, however, *had* publicly reviewed and discussed Vioxx long before the drug's withdrawal, before Senator Grassley's rebuke, and before the Institute of Medicine's charge: the agency consulted with its Arthritis Drugs Advisory Committee about Vioxx's safety and efficacy both in 1999 and in 2001. Neither FDA staffers nor the firm sponsoring the drug served on the agency's drug advisory committees as voting members. Instead, the firm sponsoring the drug summarized evidence from drug trials and offered justifications for the drug's approval and labeling claims. Agency staffers presented their findings and concerns about drug applications in testimony before the committee as well. Both Vioxx meetings invited nonbinding advice from the committee in front of public audiences, and a portion of the 2001 deliberation included debate over whether Vioxx caused heart attacks and strokes.[4]

Public meetings like the ones convened by the FDA suggest potential portals for public participation in agency policymaking that can challenge key aspects of traditional bureaucratic administration. They can provide a public forum for agency critics, reveal details of agency decision making that an agency may prefer to keep private, produce information an agency may not want to consider, and compromise agency jurisdiction over the ultimate policy decision.[5] As part of public meetings convened in 2005 to discuss Vioxx's withdrawal from the market, a representative of the consumer advocacy group, Public Citizen, publicly charged that the FDA knew about cardiovascular risks associated with Cox-2 inhibitors such as Vioxx and failed to reveal that information

[3] Institute of Medicine, *The Future of Drug Safety: Promoting and Protecting the Health of the Public* (Washington, DC: National Academy Press, 2007), p. 17.

[4] Food and Drug Administration, "Arthritis Advisory Committee Meeting Transcript: Vioxx, April 20, 1999"; Food and Drug Administration, "Arthritis Advisory Committee Meeting Transcript: Vioxx, February 8, 2001."

[5] Kenneth I. Kaitin, Ann Melville and Betsy Morris, "FDA Advisory Committees and the New Drug Approval Process," *Journal of Clinical Pharmacology* 29 (1989): 886–890; Steven J. Balla and John R. Wright, "Can Advisory Committees Facilitate Congressional Oversight of the Bureaucracy?" *Congress at Work, Congress on Display* (Ann Arbor: University of Michigan Press, 2000), pp. 167–187; Steven J. Balla and John R. Wright, "Interest Groups, Advisory Committees, and Congressional Control of the Bureaucracy," *American Journal of Political Science* 45 (2001): 799–812.

promptly.[6] Long before Vioxx, AIDS activists and groups representing other disease sufferers started using FDA advisory committees to chastise the FDA publicly and viscerally. "The FDA is incapable of doing its job expeditiously," a member of the AIDS organization ACT-UP New York charged at the June 12, 1991 Antiviral Drugs Advisory Committee meeting reviewing the drug Foscavir. He continued in his address to the committee:

> Tell [FDA Commissioner] David Kessler, [Center for Drug Evaluation and Research Director] Carl Peck … that denying [Foscavir] to people who have nothing to lose because of their slow bureaucratic procedures is a moral outrage that this committee and the American public will not tolerate. Remind the FDA – and it is sick that they need to be reminded of this – but remind them that they work for us, the American taxpayers, and that we are dying because of their inefficiency.[7]

The conventional portrait of government bureaucrats depicts insatiable appetites for secrecy and exclusivity. This notorious closure fuels a fundamental and enduring tension facing American government: reconciling bureaucratic policymaking with democratic accountability. Yet, bureaucrats in American agencies across the federal government frequently make their information public, open their policymaking processes to public advice, and, in doing so, expose themselves to public rebuke as in the case of Foscavir. If public participation poses a fundamental threat to bureaucratic power, why do bureaucrats open their doors to participation and *choose* to convene thousands of public meetings each year? Does public participation in agency policymaking, of the kind that emerged for the Vioxx review, improve policy outcomes and provide a portal for democratic governance, or does it merely yield an additional platform for industry influence and privilege in executive branch policymaking? More broadly, what effects does public participation have on bureaucratic administration, on policy outcomes, and on democratic accountability?

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"This is an idiotic policy," a member of the National Assessment Governing Board bluntly charged at the Board's May 2002 public meeting, referring to the portion of the No Child Left Behind Act (NCLB) that made the test questions on the National Assessment of Educational Progress more readily available to public inspection.[8]

[6] See comments from Sidney Wolfe, "Food and Drug Administration, Joint Meeting of the Arthritis Advisory Committee and the Drug Safety and Risk Management Advisory Committee Transcript, Volume II, February 17, 2005," pp. 240–241.

[7] David Kessler was the FDA commissioner at the time. Carl Peck was the director of the Center for Drug Evaluation and Research, in charge of the drug review process. Statement of Derek Link, in Food and Drug Administration, "Antiviral Drugs Advisory Committee Transcript: Foscavir for treatment of cytomegalovirus retinitis in patients with AIDS, June 12, 1991," p. 6.

[8] Author's field notes, May 17, 2002; See also National Assessment Governing Board, "Official Summary of Board Actions, Meeting of May 17–18, 2002," in August 2002 Briefing Book,

Since 1969, the National Assessment of Educational Progress (NAEP) has been routinely testing and reporting nationally on student achievement in reading, math, science, and other subjects.[9] It has earned the reputation as the "gold standard" for measuring student achievement across the United States, a reputation that depends on producing valid measures of student achievement. Such validity stems from the assessment's design, which has historically precluded teachers from teaching to the test.

From the view of agency leadership at the National Center for Education Statistics (the government agency responsible for helping administer the assessment) along with some members of the National Assessment Governing Board (the public board that sets policy for the assessment), provisions of NCLB designed to make National Assessment test questions more broadly accessible and transparent to the public threatened to jeopardize the assessment's integrity. Addressing the National Assessment Governing Board at its March 2002 meeting, the Acting Commissioner of the National Center for Education Statistics warned:

> [L]et's say, for example … someone got all the [NAEP] booklets and put them on a web site. Well, that would basically as far as I'm concerned shut down our ability to conduct that assessment.[10]

Similarly, the public Board's Executive Director warned at the May 2002 meeting that these new requirements could "bring NAEP to its knees" and possibly damage the statistical integrity of the test.[11] The Board Chairman echoed these worries, stating that it might be the responsibility of board members to speak about these concerns. He remarked that if it appeared this part of the law would jeopardize NAEP's integrity, it could be the Board's job to say "Stop."[12]

For the past fifty years, public participation through public committees has figured prominently in the National Assessment's governance, design, and operation. Public committees helped design the original NAEP in the early 1960s. Public committees have helped design and review the questions that NAEP poses on assessments. Public committees have governed the assessment's

pp. 9–10; Lynn Olson "Board Acts to Bring NAEP in Line with ESEA," *Education Week* 21 (2002): 22–24.

[9] Assessments in Science, Writing, and Citizenship marked the first round of NAEP assessments, conducted in 1969–1970. Assessments in Reading and Literature began in 1970–1971, followed by assessments in Music and Social Studies in 1971–1972. The first assessment in Math was conducted in 1972–1973. See National Center for Education Statistics, *Directory of NAEP Publications* (Washington, DC: U.S. Department of Education, 1999).

[10] See National Assessment Governing Board, "Board Meeting Transcript, March 1, 2002." Page numbers are not reported on pages of the transcript.

[11] Author's field notes, May 18, 2002. Participants at the meeting discussed the "good faith effort" the Board and agency had undertaken to implement the law.

[12] Author's field notes, May 18, 2002. For further discussion, see National Assessment Governing Board, "Official Summary of Board Actions, Meeting of May 17–18, 2002," in August 2002 Briefing Book, p. 10.

policy decisions ever since the assessment began. Unlike the advisory committees the FDA consults, public boards for the National Assessment enjoy binding policymaking authority over some policy tasks.[13] And the relationship between the Governing Board and the education statistics agency has, at times, been fraught.[14] Yet, the Board found itself at odds with a portion of the president's signature education policy initiative and in agreement with bureaucratic leadership in the National Center for Education Statistics, the government agency: to protect the statistical integrity of the National Assessment by shielding it from unfettered public access to assessment questions. The conventional portrait of public committees suggests that public participation can interfere with agencies' abilities to deploy their technical knowledge in policy implementation, and that a trade-off exists between democratic control and agency expertise. In the case of the National Assessment of Educational Progress, public participation has instead appeared to help protect and promote the statistical integrity of the assessment, combining public participation and aspects of closure. When does public participation enhance expertise and when does it compromise the technical integrity of agency policymaking? When do bureaucratic administration and democratic governance appear fundamentally at odds, and when can they be reconciled through participation that offers both?

THE TENSION BETWEEN BUREAUCRATIC ADMINISTRATION AND AMERICAN DEMOCRACY

The opening narratives invite us to rethink and refine ideas about whether and when expert knowledge creates tension between bureaucratic administration and democratic accountability. Both secrecy and expertise represent traditional hallmarks of bureaucratic administration[15] and provide the crux of the Vioxx puzzle. Given the power that exclusive expert knowledge and closure can confer, why would the FDA open its policymaking process to outside advisers and to an audience of spectators? One conventional response looks for elected officials' fingerprints on agency structures and processes that yield greater openness. The idea that government agencies possess and capitalize on exclusive

[13] P.L. 103–382 stipulates that "Only sections 10, 11, and 12 of the Federal Advisory Committee Act shall apply with respect to the Board." Those sections bear on procedures for calling meetings, holding open meetings, transcript availability, and financial reporting.

[14] A historical review concludes NAGB and NCES "usually have worked closely and harmoniously together" despite "certain tensions and disputes." See Maris Vinovskis, *Overseeing the Nation's Report Card: The Creation and Evolution of the National Assessment Governing Board* (Washington, DC: National Assessment Governing Board, 1998), p. 31.

[15] Max Weber, *From Max Weber: Essays in Sociology* (New York: Oxford University Press, 1946), p. 233; Max Weber, *The Theory of Social and Economic Organizations* (London: Free Press of Glencoe, Collier-MacMillian Ltd., 1947), p. 339. This book defines secrecy as concealing information and defines transparency as revealing information, consistent with Sissela Bok, *Secrets: On the Ethics of Concealment and Revelation* (New York: Random House, 1983).

expert information is foundational to theories of oversight and delegation that strive to explain when elected officials cede policymaking to bureaucrats and what structures and procedures elected officials construct to prevent bureaucrats' policies from straying far from elected officials' wishes.[16] Given bureaucrats' presumed appetites for secrecy, the power such secrecy can confer and the potential threat it poses to democratic governance, American elected officials and government reformers have repeatedly sought ways to induce bureaucrats to reveal otherwise private information and provide organized groups opportunities to monitor bureaucratic policymaking. This includes requirements to share government records, to conduct open government meetings, and to require public participation in rulemaking.[17] The ensuing political influence over agency work, however, can threaten agency expertise and impair the quality of policy outcomes. Aspects of political control, for instance, appear to come at the expense of drug safety.[18] Some versions of democratic accountability can compromise bureaucratic administration, and vice versa, thus yielding an apparent trade-off between the two.[19]

These concerns about the tension between bureaucratic policymaking, in which unelected civil servants make significant policy decisions, and democratic oversight that vests governing authority in the public have long been stitched into the fabric of American governance. This tension has taken on heightened significance, however, with the dramatic expansion and development of American bureaucracy since the nation's founding.[20] The American bureaucracy wields significant power, and some estimates suggest that agency

[16] See Matthew McCubbins and Thomas Schwartz, "Congressional Oversight Overlooked: Police Patrols vs. Fire Alarms," *American Journal of Political Science* 28 (1984): 165–179; Mathew McCubbins, Roger Noll, and Barry Weingast, "Structure and Process, Policy and Politics: Administrative Arrangements and the Political Control of Agencies," *Virginia Law Review* 75 (1989): 431–482; David Epstein and Sharyn O'Halloran, *Delegating Powers: A Transaction Cost Politics Approach to Policy Making under Separate Powers* (New York: Cambridge University Press, 1999); John Huber and Charles R. Shipan, *Deliberate Discretion: The Institutional Foundations of Bureaucratic Autonomy* (New York: Cambridge University Press, 2002).

[17] On regulatory notice and comment procedures and its limitations, see Cornelius Kerwin, *Rulemaking* (Washington, DC: CQ Press, 2003), pp. 62–66; Jason Webb Yackee and Susan Webb Yackee, "Bias Toward Business?" *Journal of Politics* 68 (2006): 128–139; Steven J. Balla, "Administrative Procedures and Political Control of the Bureaucracy," *American Political Science Review* 92 (1998): 663–673. On the Freedom of Information Act provisions, see Alasdair Roberts, *Blacked Out* (New York: Cambridge University Press, 2006), pp. 13–18.

[18] Politics can never be fully separate from administration. However, imposing deadlines on the FDA to review drugs quickly – one manifestation of political influence over agency policymaking – can compromise the quality of the agency's regulatory process by putting drugs on the market that are more likely to pose safety problems associated with adverse events and deaths. Daniel Carpenter, Jacqueline Chattopadhyay, Susan Moffitt, and Clayton Nall, "The Complications of Controlling Agency Time Discretion: FDA Review Deadlines and Postmarket Safety," *American Journal of Political Science* 56 (2012): 98–114.

[19] Kathleen Bawn, "Political Control Versus Expertise: Congressional Choices About Administrative Procedures," *American Political Science Review* 89 (1995): 62–73.

[20] Stephen Skowronek, *Building a New American State: The Expansion of National Administrative Capacities, 1877–1920* (Cambridge: Cambridge University Press, 1982); William T. Gormley, Jr.

administrators – not Congress or the president – create the majority of American laws through the rulemaking process.[21] With the growth of the American administrative state has come responsibility for policies, services, and decisions on which Americans' health, safety, and financial livelihood depend. Failures in bureaucratic expertise can produce devastating consequences.

The chapters that follow depart from the conventional account that explains bureaucratic openness solely in terms of elected officials' handiwork and develops the concept of participatory bureaucracy: a form of public engagement in agency policymaking, which reframes the bureaucracy-democracy relationship as in tension but not necessarily as a zero-sum trade-off. When participation is bureaucratic, it supports competent policy implementation consistent with the core elements of bureaucratic reputation: unique agency expertise and diverse support.[22] When bureaucracy is participatory, the scope of participation and policy decisions are fluid, not perfunctory means of rubber-stamping an agency decision or manipulating the masses. Meeting the conditions of participatory bureaucracy can be difficult to attain. Yet, when they manifest, they have the potential to support both bureaucratic administration and democratic accountability.

PARTICIPATORY BUREAUCRACY: SOME GUIDING PRINCIPLES

When are federal-level bureaucrats more or less likely to seek public participation in agency policymaking? When is public participation more or less likely to support key features of bureaucratic administration: expertise and diverse support? My approach to these questions begins by considering bureaucrats as implementers broadly defined, who make policy in the course of implementation.[23] While putting policy into practice is a dynamic process,[24] knowledge and

and Steven J. Balla, *Bureaucracy and Democracy: Accountability and Performance* (Washington, DC: CQ Press, 2007).

[21] Kenneth F. Warren, *Administrative Law in the Political System*, 4th ed. (Boulder, CO: Westview Press, 2004), p. 282, cited in Susan Webb Yackee, "Lifecycle of Medical Product Rules Issued by the Food and Drug Administration," *Journal of Health Politics, Policy and Law* (Forthcoming). For comprehensive scholarship on bureaucratic power, see Daniel P. Carpenter, *Reputation and Power: Organizational Image and Pharmaceutical Regulation at the FDA* (Princeton, NJ: Princeton University Press, 2010).

[22] Carpenter specifies unique capacities and political legitimacy embedded in "multiple networks" as foundational elements of bureaucratic reputation and autonomy. Daniel P. Carpenter, *The Forging of Bureaucratic Autonomy: Reputations, Networks, and Policy Innovation in Executive Agencies, 1862–1928* (Princeton, NJ: Princeton University Press, 2001), p. 14.

[23] Though this view of implementation as creating policy is typically attributed to grassroots implementation, it applies to federal-level implementers as well. On grassroots implementation, see Michael Lipsky, *Street-Level Bureaucracy: Dilemmas of the Individual in Public Services* (New York: Russell Sage Foundation, 1980).

[24] On the factors affecting implementation, see David K. Cohen and Susan L. Moffitt, *The Ordeal of Equality: Did Federal Regulation Fix the Schools?* (Cambridge, MA: Harvard University Press, 2009), pp. 17–44.

turf provide the backbones of bureaucratic task implementation. Considered in the context of U.S. federal-level policy, neither knowledge nor jurisdiction for task implementation is a general or fixed property of an agency. Instead, knowledge and turf vary by task. Conditions conducive to participatory bureaucracy thus depend on characteristics of a policy task, the fundamental unit of bureaucratic work.[25]

For instance, federal-level bureaucrats may have knowledge superior to family physicians on Vioxx's cardiovascular risks, but Merck might have better information than the bureaucrats, and researchers at the Cleveland Clinic might have better information yet. Instead of assuming monopoly information – on anyone's part – bureaucratic implementers confront a range of informational contexts, including when bureaucrats have more information, when outsiders have more information, when nobody has information, or when everyone is informed.[26] Government agencies also face a continuum of implementation contexts, ranging from fully in-house, such as a budget examination housed in the Office of Management and Budget, to well outside the agency's hierarchical reach. The federal government, for instance, enjoys relatively little formal authority over local public schools. The extent to which federal bureaucrats can implement policy in local school contexts typically depends on thousands of loosely connected implementers populating the vast governance space between the federal Department of Education and Valley View Elementary.

Consider the schema in Figure 1.1 that depicts variation on two crucial dimensions of implementation: information and turf. The horizontal axis represents the agency's information relative to task demands: the right side reflects full agency information, and the left side pegs at agency ignorance. The vertical axis represents a continuum from task independence to task interdependence. The top reflects full independence: the task is performed entirely within the agency's hierarchy. The bottom reflects fully interdependent implementations. Considerable scholarship on bureaucratic politics focuses on quadrants A and B, and with good reason. Quadrant A represents an ideal bureaucracy with perfect information and full authority over implementation, rather like Internal Revenue Service tax audits. This is where Weberian expertise and secrets may reside in harmony. In Quadrant B, bureaucrats enjoy authority over implementation, but their information is less complete relative to task demands. Here is where the tenets of Weberian

[25] On the importance of tasks within an organizational context, see James Q. Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (New York: Basic Books, 1989), pp. 25–26. The discussion that follows does not aim to provide an optimal strategy for bureaucrats or for elected officials. Instead, it focuses on the conditions when participation is more or less likely to be consistent with key features of bureaucratic reputation.

[26] For important work on the development of bureaucratic information and expertise, see Sean Gailmard and John W. Patty, *Learning While Governing: Expertise and Accountability in the Executive Branch* (Chicago: University of Chicago Press, 2012).

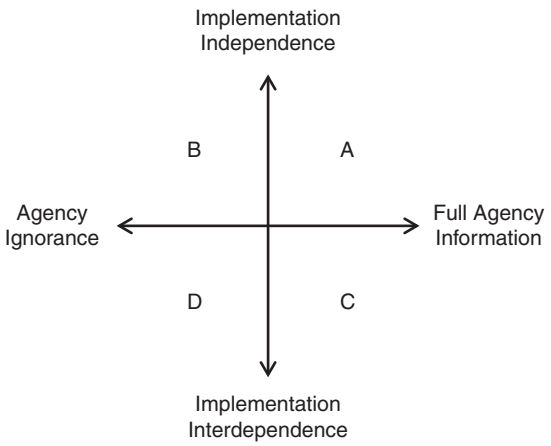

FIGURE 1.1. Participation in American Bureaucracy by Task-Specific Information and Implementation Conditions.

power – technical knowledge and secrecy – may be at odds. The Atomic Energy Commission in the 1950s, for instance, enjoyed authority over the development of American nuclear power. When faced with insufficient information, the Commission engaged in private learning: talking behind closed doors with outsiders who had better information and more technical expertise than insiders.[27] Yet, Quadrant B is also where bureaucratic independence can allow bureaucrats to hide their ignorance: where secrecy enabled the Commission to avoid revealing their uncertainty over reactor safety, for instance. In his call for greater oversight of the Central Intelligence Agency in 1956, Senator Michael Mansfield (D-MT) lamented, "If we accept the idea of secrecy for secrecy's sake we will have no way of knowing whether we have a very fine intelligence service or a very poor one."[28] Secrecy can impair both expertise and democratic oversight.[29]

[27] On the Atomic Energy Commission, see Brian Balogh, *Chain Reaction: Expert Debate and Public Participation in American Commercial Nuclear Power, 1945–1975* (New York: Cambridge University Press, 1991).

[28] Comments of Senator Michael Mansfield, (D-MT), *Congressional Record* Senate, April 9, 1956, p. 5930.

[29] Francis E. Rourke, *Secrecy and Publicity: Dilemmas of Democracy* (Baltimore, MD: Johns Hopkins Press, 1961) pp. 5, 10–11, 138; Michel Crozier, *The Bureaucratic Phenomenon* (Chicago: University of Chicago Press, 1964), p.153; Daniel Patrick Moynihan, *Secrecy: The American Experience* (New Haven, CT: Yale University Press, 1998); Kenneth J. Meier and

Task implementations that appear in Quadrants C and D foster greater incentives for bureaucrats not only to learn *from* the public but also to learn *in* public than in A and B. These are conditions of greater task interdependence, when bureaucrats depend fundamentally on implementers who reside outside the agency's hierarchical jurisdiction. To implement its task of ensuring drug safety and efficacy, for instance, the FDA depends on firms to gather and reveal appropriate information both to the FDA *and* to doctors and patients. The agency depends on physicians and patients to use therapies judiciously. It depends on firms and physicians to report adverse events to the agency. The FDA cannot command safe drug use: safety and efficacy are ultimately matters of practice that transcend the agency's organizational boundaries. While drug reviews present general conditions of interdependence, each drug review produces a different information and implementation context. The case of the drug Lotronex presented in Chapters 6 and 8 offers an illustration of Quadrant D before the drug was approved: nobody knew if the drug caused the serious side effect ischemic colitis. Lotronex offers an illustration of Quadrant C after the drug was approved: the FDA had information on Lotronex risks it wanted to convey to the public, and it did so through public meetings.

Thus, one condition of participatory bureaucracy – public engagement in agency policymaking that supports both bureaucratic administration and democratic oversight – is *interdependent task implementation* that appears in Quadrants C and D. Interdependence renders the expertise or knowledge required for implementation contingent and emergent,[30] which creates incentives for public learning and learning *in* public, more so than for tasks with independent implementations. From a bureaucratic perspective, we would expect public participation to manifest in the same agency for some tasks but not for others. Participatory bureaucracy is less about whether or not the FDA reflects openness or closure overall, and more about whether and why openness appears for some tasks, such as drug reviews for novel indications, but not for others, such as drug reviews for supplemental indications. Participatory bureaucracy invites us to look beyond explanations that stop at the level of institutions and procedures and focus more closely on task-specific conditions.

John Bohte, *Politics and the Bureaucracy: Policymaking in the Fourth Branch of Government* (Belmont, CA: Thomson Wadsworth, 2007), p. 66; Harold Wilensky, *Organizational Intelligence* (New York: Basic Books, 1969), p. 144; Jeffrey Pfeffer and Gerald R. Salancik, *The External Control of Organizations* (New York: Harper and Row, 2003), p. 104.

[30] For careful distinction between the concepts of complexity, difficulty, and uncertainty, see Scott E. Page, "Uncertainty, Difficulty and Complexity," *Journal of Theoretical Politics* 20 (2008): 115–149. Task interdependence is consistent with public administration's concept of co-production and viewing the public as a partner. John Clayton Thomas, *Citizen, Customer, Partner: Engaging the Public in Public Management* (New York: M.E. Sharpe, 2012), pp. 10–12, 85–101; Jeffrey Brudney and Robert England, "Toward a definition of the co-production concept," *Public Administration Review* 43 (1983): 59–65; Sean P. Osborne, "Delivering Public Services: Time for a New Theory?" *Public Management Review* 12 (2010): 1–10.