The garbage can model: The theory

Although useful, Polsby's idea of issue incubation fails to tell us why some issues cease to incubate and begin to thrive. A model developed by Michael Cohen, James March, and Johan Olsen suggests an answer.\textsuperscript{41}

Cohen and his colleagues see organizations as "organized anarchies." Flowing through organization or decision structures are four separate streams: problems, solutions, participants, and choice opportunities. Each of the streams has a life of its own. Thus participants generate

and debate solutions because they have some self-interest in doing so (e.g., keeping their job or expanding their unit). They drift in and out of decision making, carrying pet problems and solutions with them, looking for situations, or "choice opportunities," in which they might be aired.

Thus a choice opportunity is a kind of garbage can into which participants randomly dump various kinds of problems and solutions. Outcomes then are a function of the mix of garbage (problems, solutions, participants, and the participant's resources) in the can. For a problem to be resolved, the four separate streams must couple. Within the organization—which for our purposes, might be construed as the federal government itself—you must have a participant, who recognizes a problem, actually meeting with another participant who has a pet solution that he has been carrying about. Remember: The solution or policy proposal might have been developed independently, without any knowledge of the problem. Finally, participants, problems, and solution must be coupled with a political stream.

Independently of problem recognition or the development of policy proposals, political events flow along according to their own dynamics and their own rules. Participants perceive swings in national mood, elections bring new administrations to power and new partisan or ideological distributions to Congress, and interest groups of various descriptions press (or fail to press) their demands on government.

Developments in this political sphere are powerful agenda setters. A new administration, for instance, changes agendas all over town as it highlights its conceptions of problems and its proposals, and makes attention to subjects that are not among its high priorities much less likely. A national mood that is perceived to be profoundly conservative dampens attention to costly new initiatives, while a more tolerant national mood would allow for greater spending. The opposition of a powerful phalanx of interest groups makes it difficult—not impossible, but difficult—to contemplate some initiatives.12

In developing their garbage can model, Cohen, March, and Olsen used American colleges and universities as the prototype organized anarchy (make of that what you will). Does the model apply to the public policymaking process? More to the point, what use is the model?

Much about the model is obvious. After all you cannot have a policy proposal unless someone has a concrete solution to a real problem. Furthermore, I think that we can agree without too much argument, that the policy proposal must be politically feasible and that its advocates must sometimes be waiting for a window of opportunity to push it. The notion that a solution can actually precede a problem is much less

obvious, however. So, too, is the notion that who the participants are—who is invited to the Monday morning meeting, or Saturday golf match, or cocktail party—determines whether a solution couples with a problem.

This picture does not look like rational decision making. John W. Kingston of the University of Michigan explains the difference:

People do not set about to solve problems here. More often, solutions search for problems. People work on problems only when a particular combination of problem, solution, and participants in a choice situation makes it possible. Nor do they go through a prescribed logical routine: defining the problem, canvassing the possible solutions, evaluating the alternatives in terms of their ability to solve the problem at the least cost. Rather, solutions and problems have equal status as separate streams in the system, and the popularity of a given solution at a given point in time often affects the problems that come up for consideration.  

Nor does the model necessarily resemble incremental decision making—which prefers only conservative, minimal departures from the status quo. Coupling of streams in a decision-making context can sometimes produce an abrupt change as a previously untried combination comes into play.

The Garbage can model: Four case studies

The Tax Reform Act of 1986. For more than two decades, reformers have called for a change in the U.S. tax system; specifically, they advocated a simpler code and fewer deductions (or loopholes). To get a flavor of that complexity, consider the last sentence of section 509(a) of the tax code: “For purposes of paragraph (3), an organization described in paragraph (2), shall be deemed to include an organization described in section 501(c)(4), (5), or (6), which would be described in paragraph (2) if it were an organization described in section 501(c)(3).”

Candidate Jimmy Carter adopted tax reform as a major presidential campaign issue in 1976, calling the tax system “a disgrace to the human race.” As president, however, Carter failed in his efforts to effect tax reform, for two reasons. First, he had other priorities—such as energy legislation. In fact, Carter’s energy specialists succeeded in enacting new tax breaks for energy conservation and the development of synthetic fuels. Second, he did not make his reform proposal sweeping or radical enough. This failure provides a good illustration of the serious limitations that a strategy of incremental change can have when applied to a long-entrenched governmental program.  

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43 Ibid., p. 91.
Meanwhile, high inflation rates steadily pushed taxpayers into higher brackets even when their earnings rose less than prices. By 1980, polls showed that the public thought the income tax the least fair form of taxation. Tax evasion was on the rise. By 1980, the problem of the U.S. tax system was generally recognized.

The momentum for the solution of comprehensive tax reform began to grow. In the spring of 1982, Senator Bill Bradley and Representative Richard Gephardt proposed a code with low rates and few deductions. Soon afterwards, Representative Jack Kemp and Senator Robert W. Kasten introduced a Republican bill that embodied many of the same principles. Few observers gave these proposals much chance—the participants lacked the political influence. New participants would have to enter the fray.

President Reagan had advocated lower rates and a simpler system for years, but his 1983 State of the Union address contained only a single line about tax reform. Behind that brief mention was, however, a more serious interest encouraged by the president’s friend, Secretary of State George Shultz. During a round of golf in Palm Springs, California, while the president was on vacation, Shultz mentioned academic studies about the advantages of a flat tax (that is, everyone pays the same rate). Because he was interested in plausible ways to cut taxes further, Reagan decided to make brief mention of tax simplification in his State of the Union speech.

For a year, nothing much happened. But when time came to prepare his 1984 State of the Union address—which would set the themes for his re-election campaign—Reagan decided to announce that he was ordering Donald Regan, then Secretary of Treasury, to prepare tax reform recommendations. That directive was an effort to preempt the Democratic nominee, Walter Mondale, who Reagan’s advisers thought might also propose tax reform. (He did not.)

After the election, the Treasury Department released its plan, which was similar to Senator Bradley’s. At this point, Secretary Regan made an important modification in the “solution”: He decided that the originally proposed individual tax rates—16 percent, 28 percent, and 37 percent—sounded “like a football signal” and changed them to the more easily remembered 15, 25, and 35. The 35 percent rate became President Reagan’s most important goal because it represented a cut by half of the 70 percent top rate that existed when he took office.

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In 1985, the political stream began to widen and comingle even more with the solution, which itself was becoming better defined. Citizens for Tax Justice had just released a list of 128 major corporations that paid no taxes at all and thereby increased considerable public indignation over tax laws. Meanwhile, Reagan was searching for a bold domestic initiative with which to begin his second term. His advisers thought tax reform might give the Republicans a permanent majority in the country by showing voters that the party was for the common man. This possibility, whether real or imagined, helped get the Democratic leadership in Congress behind the proposal.

Representative Dan Rostenkowski was among the first to recognize what some called the “dead cat syndrome”: none of the major participants could afford politically to have tax reform die on their doorstep. At first, he could not get his Ways and Means Committee to move on the issue. Gephardt, a committee member, relates what happened next: “Danny called the members in, sat them down one by one, and said, ‘This is it. Tax reform is going to go down, and we’re going to get blamed for it.’”

The Tax Reform Act of 1986 shows how four separate streams—problem, solution, participants, and politics—coupled to produce one of the few pieces of legislation that can truly be called historic. It affects nearly 100 million individuals and 3 million corporations that pay federal income taxes. And it reverses the whole direction that federal taxation had been following for decades.

Strategic defense initiative. In his Star Wars speech of March 23, 1983, President Reagan called on American scientists to find ways of rendering nuclear weapons “impotent and obsolete.” A confluence of participants and ideas lay behind the speech, and a review of that history goes a long way toward illuminating the garbage can model.

Central to the story is Ronald Reagan himself. Even before assuming the presidency he had expressed strong interest in trying to defend the nation from enemy missiles. He recalls a tour of the North American Defense Command, a secret installation in a hollowed-out mountain in Colorado:

They actually are tracking several thousand objects in space, meaning satellites of ours and everyone else’s, even down to the point that they are tracking a glove lost by an astronaut. I think the thing that struck me was the irony that here, with this great technology of ours, we can do all of this, yet we cannot stop any of the weapons that are coming at us. I don’t think there’s been a time in history when there wasn’t a defense against some kind of

thrust, even back in the old-fashioned days when we had coast artillery that would stop invading ships. 48

But where was the solution? On November 14, 1980, the X-ray laser rumbled to life in a nuclear explosion beneath the Nevada desert. Some scientists thought this device could be the ultimate technological fix to the arms race. The nuclear X-ray laser would be based in space and use powerful beams to shoot down Soviet missiles. It would, they hoped, end the era of mutual assured destruction (MAD) doctrine—assuring the destruction of the Soviet Union, even after our absorbing a surprise first strike—and commence a period of assured survival.

In May 1981, George A. Keyworth, a nuclear scientist who was intimately familiar with the X-ray laser, was named the president’s science adviser. Also in 1981, a group of influential scientists, industrialists, and generals began to meet at the Heritage Foundation, the conservative think tank mentioned earlier in the chapter, and to formulate a plan for creating a national system of defense. This group, along with Keyworth, had good access to Reagan and helped persuade Reagan to make his 1983 speech. 49

Whatever factors led to the Star Wars speech, an irony of the story is that the X-ray laser solution, which helped bring it about, eventually fell out of official favor. The stress shifted to non-nuclear weapons to shoot down enemy missiles. A lingering question no one can answer is whether Star Wars would have happened in the absence of the X-ray laser.

**Industrial policy: A solution looking for a problem.** Does the United States need a new industrial policy, directed by the federal government, to regain leadership as the fastest-growing economy among the world powers? This question was posed by many Democrats during 1983. Advocates said a policy was needed because of the American economy’s poor performance in recent years. When its growth came to a halt in the 1979–83 period, the United States lost ground to Japan as the world leader in industrial expansion.

Stated generally, an industrial policy for the United States would use the federal government’s money and authority to shape economic development. Advocates cite Japan’s policy of targeting specific industries for favorable bank financing, tax incentives, research aid, and other benefits as an example of how government can direct growth.

A major argument for an American industrial policy is that one already

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exists, the haphazard result of government tax, tariff, regulatory, and research-and-development policies. If these were coordinated into a coherent strategy, it is said, the United States could channel the flow of capital and labor to strengthen industries for competition with foreign business.

Among the opponents to an industrial policy is Charles L. Schultze, a former adviser to two Democratic presidents and now with the Brookings Institution. Schultze opposes any federal policy that seeks to direct the flow of capital to selected industries. Such a policy, he says, is not needed. Compared to most other countries, U.S. manufacturing did quite well in the 1970s. While the United States does have serious economic problems, the failure of the market to allocate investment in the right direction is not one of them.50

Another analyst at Brookings, Philip Trezise, labels as “mythology” the belief that the Japanese government and industry sit down and develop coherent policies to increase their export-market shares. In fact, Trezise says, the Japanese policymaking system is highly politicized, with most subsidies going to agriculture, the country’s least-efficient industry, because that is where the vote is.51

Scholars contend the Japanese have had as many failures as successes in trying to manage development over the years. The Ministry of International Trade and Industry (MITI), the government’s development agency, generally is credited with helping to build Japan’s computer, semiconductor, and steel industries, among others. But MITI’s efforts to promote the petrochemical, aluminum-refining, shipping, and commercial-aircraft industries are regarded as failures.

By 1986, the term industrial policy had largely vanished from political debate, partly because the subject had never merged with the political stream. Reagan and most other Republicans opposed a government-directed industrial policy on the ground that the marketplace allocates resources more efficiently, and the public seemed suspicious of anything that sounded like centralized economic planning.

**Acid rain: A problem in search of a solution.** A growing body of scientific research now indicates that acid rain is developing into a national problem, not simply a matter of concern to New England and New York’s Adirondack Mountains. Data emerging from the expanding federal, state, academic, and private investigations are showing that wide areas of the country may be susceptible to damage and some

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areas outside of the Northeast are already suffering harm, apparently in part as a result of acid rain.\textsuperscript{52}

Recent studies indicate that many hundreds of lakes in the Rocky Mountain region may be in danger of acidification from the air pollution emitted by smelters in the Southwest and Mexico, posing a threat to fish and other aquatic life. National Park Service scientists at parks throughout the West are reporting periodic episodes of acid rain.

But even as the dimensions of the air-pollutant problem become more clearly defined, the solution is generally believed to be more elusive than previously thought. Researchers are finding that the atmospheric chemistry of air pollution, the physics of its movement through the atmosphere, and the chemical and biological impact of acid precipitation on the natural environment, form an intricate puzzle that may take years to untangle. Acid rain by itself is not now regarded as sole cause of forest decline in the eastern states, but it is considered a component of a complex “witches brew” of manmade pollutants. Among aspects of the problem that continue to elude understanding are the effects of acid rain on trees and soil. Questions about the terrestrial effects seem particularly “intractable” at this point.

In sum, government scientists are finding they have a long way to go before they are able to answer all the questions that policymakers say need to be answered before they can act on one of the most hotly debated of environmental problems. Some analysts think that more must be learned about the causes and effects of acid rain and other pollutants before a multibillion-dollar control program is mandated.