

Bringing Research on Judgment, Decision Making to Public Policy

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As part of this years continuing series illustrating the experiences of interdisciplinary research, Harvard Business School professor Max Bazerman reflects on the applicability of interdisciplinary decision science for solving some of our most pressing problems.

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Research on the psychology of decision biases has been a growth field over the last two decades, culminating in Danny Kahneman 's Nobel Prize in Economics in 2002. Psychologists from various areas have enthusiastically assessed the significance of our judgmental errors, considered whether biases are evolutionarily adaptive, and explored the conditions under which these biases are strongest. Others have denied the existence of bias or argued for its benefits. Yet we are tragically behind in applying what we know about biases in human judgment to real-life policy decisions.

In this column, I apply concepts from a variety of subdisciplinary perspectives to several cases in which the psychology of human judgment could have been used to reach wiser policies at the federal level: the auditing of public companies; organ donation; overfishing; and the tragedy of September 11. Across these four very different domains lie different judgment errors. Collectively, these examples highlight the importance of applying what decision psychologists know to the most pressing issues facing society today. And it is important to note that those insights come from the interdisciplinary base of decision science.

The past year we have witnessed the financial scandals at companies such as Enron, Adelphia, Global Crossing, Haliburton, Xerox, Worldcom, and Tyco. Millions of jobs and tens of millions of retirement plans have been lost. Central to these disasters has been the failure of auditors to fulfill their core function as public watchdog.

The federal government, the media, lawyers, economists, and the auditing industry itself have viewed the accounting scandals as a problem of corruption. I am sure that is part of the story. But the bigger story is one of bias – the domain of psychologists.

While a minority of auditors is corrupt, all auditors are human, and therefore subject to bias. My colleagues (with a backgrounds in cognitive psychology, social psychology, decision sciences, and economics) and I argue that a system in which accountants audit firms that they hope will rehire them, sell consulting service to these clients, and in some cases even seek employment with them, creates an environment in which even the most honest auditor is likely to have *self-serving biases* that disable him or her from detecting error in a client's accounting methods. Social psychologists and decision researchers have contributed the basic science that could have anticipated this problem.

When an action creates tremendous benefit for one person and little or no harm to another, most people would agree that the action should be taken. Yet Jon Baron has documented that our narrow desire to “do no harm” prevents us from seizing such opportunities. In the United States, the waiting list for organs grew from 13,000 in 1987 to 44,000 in 1996; meanwhile, the number of potential donors decreased. Over a third of those on the list will die before an organ is found.

Why do so few people bother to opt into organ donation programs? According to Baron, the *omission bias* leads people to believe that they are completely moral if they obey a list of prohibitions while otherwise pursuing their narrow self-interest. Many tradeoffs require society to inflict some small harm, such as removing a person’s organs after death, as a means to a greater benefit- in this case, prolonging another person’s life by years. Until the donation system addresses the human tendency toward errors of omission, ailing Americans will continue to be deprived of available organs. Together, social, decision, and health psychologists have the expertise to address this problem.

Moving to global dilemmas, consider these conflicts on the high seas. In recent years, Canadian fishers have blockaded a U.S. ferry and shot at a Spanish ship, Russians have shot at Japanese fishers, Iceland forced a Danish boat from its waters, Australian forces have seized Indonesian boats, and the Portuguese Navy fired on a Spanish boat. What is everyone fighting about? Fish! With the aid of high-tech equipment and government subsidies, fishers have depleted the oceans of once-plentiful species. Quite simply, too many boats are chasing too few fish, leading to international skirmishes over borders and poaching.

Why do governments continue to subsidize overharvesting? Why do fishers block quotas that would ensure a sustainable supply of fish? Because of the psychological tendency to *overly discount the future*. Economic and social disruption will become increasingly common as the world continues to overharvest the oceans. Political scientists, sociologists, social psychologists, and decision researchers have offered unique insights into the management of social dilemmas. Yet policy makers have failed to apply these insights to the management of fishery crises around the world.

Finally, consider the weaknesses in the US aviation security system that most likely led the 911 terrorists to decide to use airplanes as weapons. Report after report issued by the General Accounting Office, as well as Vice President Al Gore’s special commission on aviation security, gave the White House, Congress, and the Federal Aviation Administration (FAA) ample evidence that the US aviation system was full of holes. The government knew that militant Islamic terrorists were willing to become martyrs for their cause and that their hatred and aggression toward the United States increased throughout the 1990s. The government knew that terrorists bombed the World Trade Center in 1993 and that terrorists hijacked an Air France airplane and tried to fly it into the Eiffel Tower. The government knew of a 1995 terrorist plot to simultaneously hijack eleven U.S. commercial airplanes and crash a light plane filled with explosives into CIA headquarters. Our leaders also knew that the FAA allowed passengers to carry small blades onto planes, that cockpit doors were flimsy, and that the air marshal program was underfunded. Why did they fail to improve aviation security before September 11? Because, as psychologists have shown, even when all of the necessary data is available, we *fail to anticipate the future* sufficiently.

Self-serving biases, the omission bias, overdiscounting the future, and the failure to anticipate the future are just four of the many biases discovered by psychologists that can lead to tragic errors in decision

making. In each case, psychologists could have contributed a great deal of descriptive insight. Due in part to the interdisciplinary nature of decision research, these insights take on prescriptive power. Most commonly, decision researchers identify psychological patterns that are inconsistent with economic reasoning – inconsistencies that lead people to inferior solutions. By correcting these deficiencies, we have the hope of creating more honest economies, saving more lives, sustaining natural resources, and preventing disasters. Unfortunately, too often, the reason that comes from crossing disciplinary bounds is not brought to bear on the problem at hand.

Scholars in other fields have written about the failure of policy makers to reach wise decisions. However, these writers have typically viewed these errors through the lenses of political science and economics. My friend and colleague Al Roth, an experimental economist, has noted in conversations with psychologists that the United States has a Council of Economic Advisors, yet no Council of Psychological Advisors. It is common for leading academic economists to spend a period of time in Washington, without causing their colleagues to speculate on whether they have given up on their academic career. For academic psychologists, time in Washington is unusual, and might well be perceived as a transition away from a career in scholarly research. Just as we need a government that is open to new ideas, we need psychologists who are willing to move across traditional boundaries, to take the cross-disciplinary risk, and to invest in the public policymaking process.

My colleagues and I seek to expand the discussion of government flaws by focusing on the limitations of the human mind. To do this, we need to understand the language of economics. Implicit in our research is the advocacy of what economists call “Pareto improvements” changes in policy that make some people better off and no one worse off. True Pareto improvements are all but impossible at the global and national level; most policy changes will require sacrifices from some members of society. However, psychologists can play a crucial role in finding what economist Joseph Stiglitz calls “near-Pareto improvements,” or policy changes that create large benefits for some and trivial losses for others, such as members of narrowly defined special-interest groups. Stiglitz focused on the economic barriers to near-Pareto improvements; the cognitive limitations of citizens and government decisionmakers are even greater. Improving the cognition of voters and their representatives is one of the most important challenges to the psychology research community. Insights from a variety of areas in psychology, as well as economics, politics, and decision analytic perspectives can all make a contribution toward this goal. I encourage you to work for more rational, effective public policy b) crossing borders and applying your research to the most urgent and difficult issues facing society today.