Profile

Sheila Jasanoff: Culture and Diversity in Risk Management

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Several months before we wrote this profile, a Rutgers undergraduate interested in law and science as a career approached Michael. She asked for a list of books to read. Three of the five on the list Michael gave to her were by Sheila Jasanoff, selected because the writing is clear, discerning, and provocative; it makes you question your beliefs about public policy. Quoting John Graham, Dean of Indiana University’s School of Public and Environmental Affairs: “Sheila is the rare combination of a graceful writer, and insightful mind, and a stickler for getting scientific and policy details right. [Her] work is both theoretically sophisticated and down to earth in its understanding of the life of practitioners and the public.”

1. A MULTIDISCIPLINARY EDUCATION AND MULTINATIONAL PROJECTS

Sheila Jasanoff’s undergraduate major was mathematics. She then earned an M.A. and a Ph.D. in linguistics from the University of Bonn (Germany) and Harvard, respectively, and a J.D. from Harvard Law School. Her legal education served as grounding for initial research in risk analysis. Preparing to move to Ithaca (NY), she had submitted a proposal to Cornell to examine the implementation of the U.S. Toxic Substances Control Act. At the same time, junior faculty from Cornell’s Program on Science, Technology and Society (STS) were writing a proposal to the National Science Foundation concerning the regulation of chemicals in Europe and the United States. They joined to submit a revised proposal, which was funded in 1979. Dr. Jasanoff led the risk assessment part of the project, comparing policies in the United States, France, Britain, and Germany. She was intrigued to find that these technologically advanced nations fundamentally disagreed on how to interpret the science. Thus began Dr. Jasanoff’s 35 years of pioneering work studying the role of science and technology in public policy.

In 1991, Dr. Jasanoff’s cross-disciplinary research and teaching experiences led her to become the founding chair of the new Department of Science and Technology Studies at Cornell, where she taught for 20 years before moving to Harvard’s John F. Kennedy School of Government. At Harvard, she has held the position of Pforzheimer Professor of Science and Technology Studies since 2002. She also founded and leads the Program on Science, Technology and Society and the Science and Democracy Network, a professional society that seeks in part to improve social science research on the governance of risk. A former student of Prof. Jasanoff, Wendy E. Wagner of University of Texas Law School, talks about her favorite professor in this way: “Each of her contributions is unconventional, original, and often unpredictable in its orientation and arguments, and each, without exception, has broadened and deepened my own understanding of law and science. The
field of law and science, such as I know it at least, would not exist without Sheila Jasanoff.”

Dr. Jasanoff is a Guggenheim Fellow, Fellow of the American Association for the Advancement of Science, and recipient of the John Desmond Bernal Prize from the Society for Social Studies of Science. She received an honorary doctorate from the University of Twente in 2006, and in 1992 she received the Distinguished Achievement Award of the Society for Risk Analysis.

2. INSIGHTS INTO RISK MANAGEMENT

Dr. Jasanoff has written or edited more than a dozen books. We highlight three (others are listed below), indeed the three Michael suggested to the inquiring undergraduate. In Controlling Chemicals (1985), Professor Jasanoff and her co-authors compared the regulation of chemicals in Britain, France, Germany, and the United States. All of these countries are democracies, yet they have nevertheless adopted notably different processes for assessing and managing risk. The book is an eye opener on how the same information is not interpreted the same way by different national expert bodies. In The Fifth Branch, Dr. Jasanoff explores the role of science advisors in the U.S. Environmental Protection Agency and the Food and Drug Administration. Most of us want scientists to play a larger role in regulating risk, but Jasanoff meticulously red flags the limitations of both science and scientists as advisors, and she recommends procedural reforms. This book received the Don K. Price Award of the American Political Science Association, Section on Science, Technology, and Environmental Politics.

Her 2005 book, Designs on Nature: Science and Democracy in Europe and the United States, is an analysis of the regulation of biotechnology in Britain, Germany, and the United States. Once again, comparative research clearly demonstrates how national political cultures lead governments to take different regulatory paths. As observed by Jonathan Weiner, Professor of Law, Environmental, and Public Policy, this book “illuminates how European concerns about genetically modified foods, and American concerns about embryonic stem cell research, are in one sense counterparts in risk perception, and yet in another sense are expressions of identity and constructions of culture.” In addition to her insightful books, Sheila Jasanoff has written more than 100 articles and chapters on the role of science and technology in law and public policy. Her work has been translated into several major European and Asian languages.

3. PUBLIC SERVICE AND PUBLIC POLICY INSIGHTS

We asked Professor Jasanoff about committee accomplishments that had significant influence in shaping public policy. She cited her service on the National Research Council’s Committee on Risk Characterization between 1994 and 1996 with Paul Stern and Harvey Fineberg, which resulted in a report entitled Understanding Risk: Informing Decisions in a Democratic Society. (1) This report emphasized that “how you frame a risk issue has implications for how it will be assessed and regulated,” and stressed that good risk analysis has a temporal dimension. The report advocated for analytic deliberative processes, in which scientific analysis and public participation are connected in a recursive approach that continually adjusts initial framings in accordance with new knowledge.

We discussed several major international policy debates, focusing on the increasing pressures on the world’s resources, which are creating an increased demand for technological innovations and solutions. Publics sometimes oppose such technologies, leading to charges that they don’t understand the science or have been misled. Dr. Jasanoff notes that each innovation brings new risks and unknowns. So, for example, climate change is driving a search for new geoengineering approaches, and those in turn give rise to new actors, interests, and risks. Our responses to many of today’s risk management challenges, in short, are risky in themselves.

Dr. Jasanoff observes that governments often value social science research less than natural science findings in their efforts to apply risk assessment and risk management principles to pressing problems. Because risk is about “how much of a potential bad you are willing to tolerate for an amount of potential good,” an understanding of how and why people prioritize risks and benefits is essential. Yet this kind of research is either missing or sometimes misunderstood. As an example, Jasanoff points to the EU moratorium against importing GMOs approved in the United States. The same science is available everywhere, but as yet all countries do not agree on what it means for policy. It is important to understand the reasons for different beliefs and judgments, which must be clarified through a strong social science lens. Similarly, understanding cross-national differences in responses to new energy sources will require attention in coming decades, and will clearly raise issues about divergent values and risk perceptions across nations.
Even though study of the social and human dimensions of risk is sometimes criticized as slowing down decisions and leading to stalemates, Jasanoff responds that if you “bulldoze ahead,” you often hit stalemate further down the road. A “deliberative democratic approach” is the best way to ensure robust policy decisions. People have many different types of relevant knowledge, says Jasanoff, so “you have to listen to people.” You can’t just “let the science decide.” The more complicated a decision, the greater the need for informed democracy.

Bernard Goldstein, Professor Emeritus at University of Pittsburgh’s Graduate School of Public Health, summarizes Dr. Jasanoff’s contributions to the policy process in this way: “Dr. Jasanoff has provided a series of unique insights into the cultural patterns, thought processes and ethics of practitioners of science, of policy and of law. There is no one who listens more carefully to how different practitioners of each of these fields arrive at their judgments; or who communicates with greater precision the subtle but essential differences among them. Moreover, she has done so in a manner that has greatly contributed to effective decision making on challenging issues.”

SRA member and past president Jonathan Wiener adds that “Sheila Jasanoff has been one of the most influential figures studying risk policies and institutions, both within the United States and across countries. Professor Jasanoff has pioneered careful comparisons of American and European policies, coupled with an ever-deepening theoretical understanding of comparative methodology and its limitations. Moreover, she has contributed path breaking analyses of pivotal institutions in American risk regulation, notably federal expert advisory bodies (in The Fifth Branch) and courts reviewing regulatory science (in Science at the Bar). She relentlessly challenges herself and us all to see further and appreciate more fully the intertwined relationships among policies, science, institutions, and political culture. Professor Jasanoff is also a riveting and enchanting speaker. It is always a delight—and a deservedly bracing experience—to grapple with Professor Jasanoff’s intellect.”

4. SUGGESTIONS AND NEXT STEPS

Dr. Jasanoff’s research and writing continues. Her recent work includes a volume of her collected essays on the politics of rationality (entitled Science and Public Reason), and a co-authored book in Italian on the limits of quantitative prediction. Continuing the cross-national research that brought her to the risk analysis field more than three decades ago, she is now studying the role of national imaginations of progress in shaping technological choices.

We ended our conversation with Dr. Jasanoff’s advice for people just coming into risk analysis field: “Not only acquire the specific technical background, but keep a sense of context and the history of the field.”

Books by Sheila Jasanoff


REFERENCE