

HPSCGA49: Science Policy in an Era of Risk and Uncertainty

[View Online](#)

[1]

J. Arnoldi, Risk: an introduction, vol. Key concepts. Cambridge: Polity, 2009.

[2]

G. Gigerenzer, Risk savvy: how to make good decisions. New York: Viking, 2014.

[3]

D. Lupton, Risk, Second edition. Abingdon, Oxon: Routledge, 2013 [Online]. Available:
<https://doi.org/10.4324/9781135090326>

[4]

A. Burgess, A. Alemanno, and J. Zinn, Routledge Handbook of Risk Studies. Florence: Taylor and Francis, 2016.

[5]

G. Bammer and M. Smithson, Uncertainty and risk: multidisciplinary perspectives, vol. Earthscan risk in society series. London: Earthscan, 2008.

[6]

Ulrich Beck, Risk society: towards a new modernity, vol. Theory, culture&society. London: Sage, 1992.

[7]

S. Jasanoff, *Designs on nature: science and democracy in Europe and the United States.* Princeton, N.J.: Princeton University Press, 2005.

[8]

H. Nowotny, *The cunning of uncertainty.* Cambridge: Polity, 2016.

[9]

P. Slovic, *The perception of risk*, vol. Risk, society, and policy series. London: Earthscan, 2000.

[10]

Gilberto C. Gallopin, Silvio Funtowicz, Martin O'Connor, and Jerry Ravetz, 'Science for the Twenty-First Century: From Social Contract to the Scientific Core', *International Social Science Journal*, vol. 53, no. 168, pp. 219–229, Jun. 2001, doi: 10.1111/1468-2451.00311. [Online]. Available: <https://onlinelibrary.wiley.com/toc/14682451/2001/53/168>

[11]

M. Gibbons, C. Limoges, H. Nowotny, S. Schwartzman, P. Scott, and M. A. Trow, *The new production of knowledge: the dynamics of science and research in contemporary societies.* London: SAGE Publications, 1994 [Online]. Available: <http://ebookcentral.proquest.com/lib/ucl/detail.action?docID=1024114>

[12]

J.R. Ravetz, 'What is Post-Normal Science', *Futures: The journal of policy, planning and futures studies*, vol. 31, no. 7, pp. 647–653, 1999, doi: 10.1016/S0016-3287(99)00024-5. [Online]. Available: <https://www.sciencedirect.com/journal/futures/vol/31/issue/7>

[13]

Jerome R Ravetz and Ziauddin Sardar, 'Rethinking science', *Futures: The journal of policy,*

planning and futures studies, vol. 29, no. 6, pp. 467-470, Aug. 1997, doi: 10.1016/S0016-3287(97)00023-2. [Online]. Available: <https://www.sciencedirect.com/journal/futures/vol/29/issue/6>

[14]

Deborah Dixon, Harriet Hawkins, and Mrill Ingram, 'Art: Blurring the boundaries', *Nature*, vol. 472, no. 7344, pp. 417-417, Apr. 2011, doi: 10.1038/472417a. [Online]. Available: <https://www.nature.com/>

[15]

C. J. Fearnley, W. J. McGuire, G. Davies, and J. Twigg, 'Standardisation of the USGS Volcano Alert Level System (VALS): analysis and ramifications', *Bulletin of Volcanology*, vol. 74, no. 9, pp. 2023-2036, Nov. 2012, doi: 10.1007/s00445-012-0645-6. [Online]. Available: <https://link.springer.com/journal/445/volumes-and-issues/74-9>

[16]

Carolina Garcia and Carina J. Fearnley, 'Evaluating critical links in early warning systems for natural hazards', *Environmental Hazards*, vol. 11, no. 2, pp. 123-137, Jun. 2012, doi: 10.1080/17477891.2011.609877. [Online]. Available: <https://www.tandfonline.com/toc/tenh20/11/2>

[17]

Bruno Latour, 'On actor-network theory: A few clarifications', *Soziale Welt*, vol. 47, no. 4, pp. 369-381, 1996 [Online]. Available: <https://www.jstor.org/stable/40878163>

[18]

D. S. Mileti, *Disasters by design: a reassessment of natural hazards in the United States*, vol. Natural hazards and disasters. Washington, D.C.: Joseph Henry Press, 1999.

[19]

D. Vaughan and American Council of Learned Societies, *The Challenger launch decision: risky technology, culture, and deviance at NASA*. Chicago: University of Chicago Press, 1996 [Online]. Available: <http://hdl.handle.net/2027/heb.01159>

[20]

S. Day and C. Fearnley, 'A classification of mitigation strategies for natural hazards: implications for the understanding of interactions between mitigation strategies', *Natural Hazards*, vol. 79, no. 2, pp. 1219–1238, Nov. 2015, doi: 10.1007/s11069-015-1899-z.

[21]

D. Jamieson, 'Scientific Uncertainty and the Political Process', *The ANNALS of the American Academy of Political and Social Science*, vol. 545, no. 1, pp. 35–43, May 1996, doi: 10.1177/0002716296545001004. [Online]. Available: <https://journals.sagepub.com/toc/anna/545/1>

[22]

D. J. Spiegelhalter and H. Riesch, 'Don't know, can't know: embracing deeper uncertainties when analysing risks', *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, vol. 369, no. 1956, pp. 4730–4750, Dec. 2011, doi: 10.1098/rsta.2011.0163. [Online]. Available: <https://royalsocietypublishing.org/toc/rsta/2011/369/1956>

[23]

Andrew, Stirling, 'Risk, precaution and science: towards a more constructive policy debate. Talking point on the precautionary principle', *EMBO reports*, vol. 8, no. 4, pp. 309–315, Apr. 2007, doi: 10.1038/sj.embor.7400953. [Online]. Available: <https://www.embopress.org/toc/14693178/2007/8/4>

[24]

A. Stirling, 'Risk, precaution and science: towards a more constructive policy debate. Talking point on the precautionary principle', *EMBO reports*, vol. 8, no. 4, pp. 309–315, Apr. 2007, doi: 10.1038/sj.embor.7400953.

[25]

M. Douglas and A. B. Wildavsky, *Risk and culture: an essay on the selection of technical and environmental dangers*. Berkeley: University of California Press, 1982 [Online]. Available: <https://www.jstor.org/stable/10.1525/j.ctt7zw3mr>

[26]

Thomas F. Gieryn, 'Boundary-Work and the Demarcation of Science from Non-Science: Strains and Interests in Professional Ideologies of Scientists', *American Sociological Review*, vol. 48, no. 6, pp. 781–795, 1983 [Online]. Available: <http://www.jstor.org/stable/2095325>

[27]

F. H. Knight, *Risk, uncertainty and profit*, vol. Classic reprint series. London: Forgotten Books, 2015.

[28]

D. G. Mayo, *Error and the growth of experimental knowledge*, vol. Science and its conceptual foundations. Chicago: University of Chicago Press, 1996 [Online]. Available: <https://www.vlebooks.com/Vleweb/Product/Index/467948?page=0>

[29]

B. Wisner, Ed., *At risk: natural hazards, people's vulnerability, and disasters*, Second edition. Abingdon, Oxon: Routledge, 2014 [Online]. Available: <https://doi.org/10.4324/9780203714775>

[30]

N. Pidgeon and M. O'Leary, 'Man-made disasters: why technology and organizations (sometimes) fail', *Safety Science*, vol. 34, no. 1, pp. 15–30, Feb. 2000, doi: 10.1016/S0925-7535(00)00004-7. [Online]. Available: <https://www.sciencedirect.com/journal/safety-science/vol/34/issue/1>

[31]

M. Mitchell, *Complexity: a guided tour*. New York: Oxford University Press, 2009 [Online]. Available: <https://ebookcentral.proquest.com/lib/UCL/detail.action?pq-origsite=primo&docID=472328>

[32]

H. Nowotny, 'The Increase of Complexity and its Reduction: Emergent Interfaces between the Natural Sciences, Humanities and Social Sciences', *Theory, Culture & Society*, vol. 22, no. 5, pp. 15–31, Oct. 2005, doi: 10.1177/0263276405057189. [Online]. Available: <https://journals.sagepub.com/toc/tcsa/22/5>

[33]

Ziauddin Sardar and Jerome R. Ravetz, 'Complexity: Fad or future?', *Futures*, vol. 26, no. 6, pp. 563–567, Jul. 1994, doi: 10.1016/0016-3287(94)90028-0. [Online]. Available: <https://www.sciencedirect.com/journal/futures/vol/26/issue/6>

[34]

P. J. Taylor, *Unruly complexity: ecology, interpretation, engagement*. Chicago, [III.]: University of Chicago Press, 2005 [Online]. Available: <http://www.vlebooks.com/vleweb/product/openreader?id=UCL&isbn=9780226790398>

[35]

J. Urry, 'The Complexity Turn', *Theory, Culture & Society*, vol. 22, no. 5, pp. 1–14, Oct. 2005, doi: 10.1177/0263276405057188. [Online]. Available: <https://journals.sagepub.com/toc/tcsa/22/5>

[36]

Peter, Adey and Ben, Anderson, 'Event and anticipation: UK Civil Contingencies and the space – times of decision', *Environment and Planning A*, vol. 43, no. 12, pp. 2878–2899, 2011, doi: 10.1068/a43576. [Online]. Available: <https://journals.sagepub.com/toc/epna/43/12>

[37]

J. Burgess et al., 'Deliberative mapping: a novel analytic-deliberative methodology to support contested science-policy decisions', *Public Understanding of Science*, vol. 16, no. 3, pp. 299–322, Jul. 2007, doi: 10.1177/0963662507077510. [Online]. Available: <https://journals.sagepub.com/toc/pusa/16/3>

[38]

S. Jasenoff, *Designs on nature: science and democracy in Europe and the United States*. Princeton, N.J.: Princeton University Press, 2005 [Online]. Available: <https://www-jstor-org.libproxy.ucl.ac.uk/stable/j.ctt7spkz>

[39]

Paul, Slovic, Baruch, Fischhoff, and Sarah, Lichtenstein, 'Why Study Risk Perception?', *Risk Analysis*, vol. 2, no. 2, pp. 83–93, Jun. 1982, doi: 10.1111/j.1539-6924.1982.tb01369.x. [Online]. Available: <https://onlinelibrary.wiley.com/toc/15396924/1982/2/2>

[40]

Michael S. Carolan, 'Science, Expertise, and the Democratization of the Decision-Making Process', *Society & Natural Resources*, vol. 19, no. 7, pp. 661–668, Aug. 2006, doi: 10.1080/08941920600742443. [Online]. Available: <https://www.tandfonline.com/toc/usnr20/19/7>

[41]

H.M. Collins and Robert, Evans, 'The Third Wave of Science Studies', *Social Studies of Science*, vol. 32, no. 2, pp. 235–296, Apr. 2002, doi: 10.1177/0306312702032002003. [Online]. Available: <https://journals.sagepub.com/toc/sssb/32/2>

[42]

S. Jasenoff, *States of knowledge: the co-production of science and social order*, vol. International library of sociology. London: Routledge, 2004.

[43]

S. Lash, B. Szerszynski, and B. Wynne, *Risk, environment and modernity: towards a new ecology*, vol. Theory, culture&society. London: Sage, 1996 [Online]. Available: <https://ebookcentral.proquest.com/lib/ucl/detail.action?docID=1023984>

[44]

G. A. Bradshaw and Jeffrey G. Borchers, 'Uncertainty as Information: Narrowing the

'Science-policy Gap', *Conservation Ecology*, vol. 4, no. 1, 2000, doi: 10.5751/ES-00174-040107. [Online]. Available: <https://www.ecologyandsociety.org/vol4/iss1/>

[45]

John R. Durant, Geoffrey A. Evans, and Geoffrey P. Thomas, 'The public understanding of science', *Nature*, vol. 340, no. 6228, pp. 11–14, Jul. 1989, doi: 10.1038/340011a0. [Online]. Available: <https://www.nature.com/>

[46]

Culture, Media, Language. Abingdon, UK: Taylor & Francis, 1980 [Online]. Available: <http://www.tandfebooks.com/action/showBook?doi=10.4324/9780203381182>

[47]

G. Rowe, 'A Typology of Public Engagement Mechanisms', *Science, Technology & Human Values*, vol. 30, no. 2, pp. 251–290, Apr. 2005, doi: 10.1177/0162243904271724. [Online]. Available: <https://journals.sagepub.com/toc/sthd/30/2>

[48]

S. Shackley and B. Wynne, 'Representing Uncertainty in Global Climate Change Science and Policy: Boundary-Ordering Devices and Authority', *Science, Technology & Human Values*, vol. 21, no. 3, pp. 275–302, Jul. 1996, doi: 10.1177/016224399602100302. [Online]. Available: <https://journals.sagepub.com/toc/sthd/21/3>

[49]

Deborah Trumbull et al., 'Thinking scientifically during participation in a citizen-science project', *Science education*, vol. 84, no. 2, pp. 265–275 [Online]. Available: [http://onlinelibrary.wiley.com/doi/10.1002/\(SICI\)1098-237X\(200003\)84:2%3C265::AID-SCE7%3E3.0.CO;2-5/abstract](http://onlinelibrary.wiley.com/doi/10.1002/(SICI)1098-237X(200003)84:2%3C265::AID-SCE7%3E3.0.CO;2-5/abstract)

[50]

J. Burgess et al., 'Deliberative mapping: a novel analytic-deliberative methodology to support contested science-policy decisions', *Public Understanding of Science*, vol. 16, no.

3, pp. 299-322, Jul. 2007, doi: 10.1177/0963662507077510. [Online]. Available:
<https://journals.sagepub.com/toc/pusa/16/3>

[51]

Shane J. Cronin, David R. Gaylord, Douglas Charley, Brent V. Alloway, Sandrine Wallez, and Job W. Esau, 'Participatory methods of incorporating scientific with traditional knowledge for volcanic hazard management on Ambae Island, Vanuatu', *Bulletin of Volcanology*, vol. 66, no. 7, pp. 652-668, Oct. 2004, doi: 10.1007/s00445-004-0347-9. [Online]. Available: <https://link.springer.com/journal/445/volumes-and-issues/66-7>

[52]

George E. Marcus, 'Ethnography in/of the World System: The Emergence of Multi-Sited Ethnography', *Annual Review of Anthropology*, vol. 24, pp. 95-117, 1995 [Online]. Available: <http://www.jstor.org/stable/2155931>

[53]

Andrea J. Nightingale, 'A Feminist in the Forest: Situated Knowledges and Mixing Methods in Natural Resource Management', *ACME: An International E-Journal for Critical Geographies*, vol. 2, no. 1, pp. 77-90, 2003 [Online]. Available: <http://hdl.handle.net/1842/1405>