
JAMES WILLIAM McALLISTER

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CURRENT APPOINTMENT

Professor of History and Philosophy of Science, University of Leiden, 2017–
Academic Director, Institute of Philosophy, University of Leiden, 2017–

PREVIOUS APPOINTMENTS

Primary

Research Fellow, Darwin College, University of Cambridge, 1988–1990
Lecturer, Department of Philosophy, Logic and Scientific Method, London School of
Economics, 1989
Lecturer, 1990–2004, and Senior Lecturer, 2004–2017, Faculty (since 2008: Institute) of
Philosophy, University of Leiden
Special Professor (Bijzonder Hoogleraar) of Philosophy of Technology and Culture, Faculty of
Technology, Policy and Management, Delft University of Technology, 2002–2005
(sponsored by the Koninklijk Instituut van Ingenieurs; one day per week)

Visiting

Visitor, School of Social Science, Institute for Advanced Study, Princeton, 1997
Visiting Fellow, Center for Philosophy of Science, University of Pittsburgh, 2000
Visiting Fellow, Netherlands Institute for Advanced Study in the Humanities and Social
Sciences, Wassenaar, 2005

EDUCATION

BA (First Class), Natural Sciences, University of Cambridge, 1984; MA, 1988
MA, Philosophy, University of Toronto, Canada, 1987
PhD, History and Philosophy of Science, University of Cambridge, 1989

AREAS OF SPECIALIZATION

Philosophy of science: aesthetic aspects of science, emotion in scientists' work, effort and
effortlessness in science, thought experiments, scientific realism, metaphysics of modern
science, relations between philosophy and history of science
History of science: scientific revolution 1550–1700, historiography of science

RESEARCH FUNDING

Research programme "Philosophical Foundations of the Historiography of Science", 2008–
2013, Netherlands Organization for Scientific Research (NWO), €550,000 + institutional
matching: 1 postdoc, 2 fully funded PhD fellowships, research time and facilities
PhD fellowship, "Valorization of Scientific Knowledge: Philosophy, History, and Policy", 2015–
2019, NWO, €214,000

PREVIOUS ADMINISTRATIVE EXPERIENCE

At the Faculty of Philosophy, University of Leiden:

Secretary, Faculty Board, 1997–1999

Director of Education, 2002–2004

At the Faculty of Humanities, University of Leiden:

Member, Research Committee, 2011–2017; chair, 2013–2015

PROFESSIONAL ACTIVITIES

Leadership of academic organizations

President, Dutch Society for Philosophy of Science, 2006–2010

Member, Executive Committee, Inter-University Centre, Dubrovnik, 2007–2011

Editorial posts

Editor, *International Studies in the Philosophy of Science*, 2001–

Member, Editorial Board, *International Studies in the Philosophy of Science*, 1996–2001

Consulting Editor, *Studies in History and Philosophy of Science*, 2006–

Membership of advisory committees

For the Netherlands Organization for Scientific Research:

Member, Humanities Advisory Board, 2009–2011

Member, Veni assessment committee, Humanities Research Council, 2004–2006; chair, Veni assessment committee II, 2009

Member, Appeals and Complaints Committee, 2014–

For the Netherlands Institute for Advanced Study in the Humanities and Social Sciences (NIAS):

Member, advisory council for fellowships, 2005–2012

Member, Interdisciplinary Program Board, NIAS/Lorentz Center, 2006–2012

Member, teaching assessment committee, Quality Assurance Netherlands Universities, BA and MA programmes in Philosophy of a Specific Discipline, University of Amsterdam, Vrije Universiteit Amsterdam, and University of Groningen, 2006

Organization of academic meetings

Co-director, Annual Philosophy of Science Conference, Inter-University Centre, Dubrovnik, 1998–

Co-organizer, symposia at Biennial Meetings, Philosophy of Science Association:

- *The Epistemology of Thought Experiments*, 18th Biennial Meeting, Milwaukee, 2002
- *Phenomena, Data, and Patterns*, 21st Biennial Meeting, Pittsburgh, 2008
- *The CRU E-mails: Perspectives from Philosophy of Science*, 22nd Biennial Meeting, Montreal, 2010

Organizer, Workshop on Journal Publishing, IUHPS 12th International Congress of Logic, Methodology and Philosophy of Science, Oviedo, 2003

Co-organizer, workshops at the Lorentz Center, University of Leiden:

- *Perspectives on Scientific Practice from Science and the Science Studies*, 2006
- *Symmetry as a Modern Scientific Concept: Historical and Philosophical Perspectives*, 2008
- *Understanding and the Aims of Science*, 2010

PRIZES AND AWARDS

Professional

Medal of Honour, Koninklijke Hollandsche Maatschappij der Wetenschappen, Haarlem, The Netherlands, 2002

Member, Koninklijke Hollandsche Maatschappij der Wetenschappen, 2003–

During student career

Grazebrook Prize, Gonville and Caius College, Cambridge, 1983

Honorary Senior Scholarship, Gonville and Caius College, 1984

Major Studentship, British Academy, 1984–1988

Gerstenberg Studentship, University of Cambridge, 1985–1986

Commonwealth Scholarship, Government of Canada, 1986–1987

Junior Fellowship, Massey College, University of Toronto, 1986–1987

George Paxton Young Memorial Prize, University of Toronto, 1987

LECTURES

Recent lectures, selected

"Effortlessness in Science", 8th Quadrennial International Fellows Conference (of the Center for Philosophy of Science, Pittsburgh), Lunds Universitet, July 2016

Comments on the symposium, "Data in Time: The Epistemology of Historical Data", 25th Biennial Meeting, Philosophy of Science Association, Atlanta, November 2016

"Knowledge without Effort: Epistemological Aspects of *Wu Wei* and *Sprezzatura*", 2nd Beijing–Leiden Conference in Philosophy, Leiden, January 2017

"Effortlessness in Science", Nordic Network for Philosophy of Science, Københavns Universitet, April 2017

"Identifying Thought Experiment in the Historical Record: Logicist and Contextualist Approaches", 44th Annual Philosophy of Science Conference, Inter-University Centre Dubrovnik, April 2017

"Empirical Support for Humean Causality", 45th Annual Philosophy of Science Conference, Inter-University Centre, Dubrovnik, April 2018

Presentations at general conferences, selected

IUHPS International Congress of Logic, Methodology and Philosophy of Science, 10th Congress, Florence, 1995; 11th Congress, Cracow, 1999; 12th Congress, Oviedo, 2003 (invited speaker, Section D3)

Philosophy of Science Association, 18th Biennial Meeting, Milwaukee, 2002; 20th Biennial Meeting, Vancouver, 2006; 21st Biennial Meeting, Pittsburgh, 2008; 22nd Biennial Meeting, Montréal, 2010

British Society for the Philosophy of Science, Summer Conference, University of Nottingham, 1999

Canadian Society for History and Philosophy of Science, Annual Meeting, McMaster University, 1987

Annual Philosophy of Science Conference, Inter-University Centre, Dubrovnik, most years since 1984

Society for Social Studies of Science, Annual Meeting, Vancouver, 2006

Society for Social Studies of Science/European Association for the Study of Science and Technology, Erasmus University Rotterdam, 2008

Willi Hennig Society, 11th Annual Meeting, Paris, 1992

European Sociobiological Society, 16th Meeting, Vrije Universiteit Amsterdam, 1993

Pittsburgh Center for Philosophy of Science Quadriennial International Fellows Conference,
4th Conference, San Carlos de Bariloche, 2000; 5th Conference, Rytro, 2004
Third Bi-Annual Dutch Conference in the History of Science, Woudschoten, 2009
Société de philosophie des sciences, Paris, 2009
European Philosophy of Science Association, 3rd Biennial Conference, Athens, 2011

Presentations at thematic conferences, selected

Francis Hutcheson Tricentenary Conference, University of Glasgow, 1994
Bellezza e rivoluzione nella scienza, National Museum of Science and Technology "Leonardo
da Vinci", Milan, 1998
The Philosophy of Marx Wartofsky, New School University, New York, 1999
Matematica e cultura 2001, Ca' Foscari, Venice, 2001
Thinking through Thought Experiments, Universiteit Gent, 2001
Kunstkamer, Laboratorium, Bühne: Schauplätze des Wissens im 17. Jahrhundert, Freie
Universität Berlin, 2002
Laws and Models in Science, European Science Foundation Network on Historical and
Contemporary Perspectives of Philosophy of Science in Europe, King's College, London,
2003
Beauty of Nature—Beauty of Science, University of Aarhus, 2003
Knowledge and Imagination, Vrije Universiteit Amsterdam, 2004
Spektakuläre Experimente: Praktiken der Evidenzproduktion im 17. Jahrhundert, Freie
Universität Berlin, 2004
Philosophical Perspectives on Scientific Understanding, Vrije Universiteit Amsterdam, 2005
Moral Emotions about Risky Technologies, Technische Universiteit Delft, 2007
Workshop on Thought Experiments, University of Toronto, 2007 and 2009
Contingency in Science: Its Origins and Outcomes, London School of Economics, 2007
Models and Simulations 2, Universiteit van Tilburg, 2007
Aesthetics and Mathematics, Universiteit Utrecht, 2007
Making Small Facts Travel: Labels, Vehicles and Packages, London School of Economics,
2008
Induction: Historical and Contemporary Approaches, Universiteit Gent, 2008
Data—Phenomena—Theories: What's the Notion of a Scientific Phenomenon Good for?,
Ruprecht-Karls-Universität Heidelberg, 2008
Foundations of the Formal Sciences VII, Koninklijke Vlaamse Academie van België voor
Wetenschappen en Kunsten, Brussels, 2008
Science without Data? The Role of Thought Experiments in Empirical Investigations,
Dalhousie University, 2010
Symposium Schoonheid en wetenschap, Museum Boijmans van Beuningen, Rotterdam, 2011
Seminar on Algorithmic Randomness, Université Paris Diderot, 2011
International Conference for the Tercentenary of the Birth of Ruggiero Giuseppe Boscovich,
Università degli Studi di Pavia, 2011

Institute lectures, selected

Universities of Utrecht, Vrije Universiteit Amsterdam, Rotterdam, Groningen, Maastricht,
Delft, Leuven, Vrije Universiteit Brussel, Warwick, Konstanz, Pittsburgh, Stanford, Toronto,
McGill; Shell Research and Technology Centre, Amsterdam; Institute for Advanced Study,
Princeton; European College of Liberal Arts, Berlin; The Hague Philosophical Society

PUBLICATIONS

Books

Beauty and Revolution in Science. Ithaca, N.Y.: Cornell University Press, 1996; paperback
edition, 1999; xiv + 231 pp.

- Alternate Selection, Library of Science Book Club, 1996
- Outstanding Academic Book for 1997, *Choice Magazine*
- Italian edition: *Bellezza e rivoluzione nella scienza*, trans. Mariella R. Fasanelli. Milan: McGraw-Hill Libri, 1998; xvi + 236 pp.
- Chinese (simplified characters) edition: *Mei yu ke xue ge ming*, trans. Li Wei. Changchun: Jilin People's Publishing House, 2000; 295 pp.

Edited volumes

The Question of Style in Philosophy and the Arts, with Caroline A. van Eck and Renée van de Vall. Cambridge: Cambridge University Press, 1995; paperback ed., 2010; xi + 245 pp.

Published lectures

Het station en het museum. Netwerken in techniek en cultuur. Inaugural lecture, Delft University of Technology. Delft: Delft University Press, 2004. 28 pp.

Journal articles and book chapters

- "Theory-assessment in the Historiography of Science", *British Journal for the Philosophy of Science* 37 (1986), pp. 315–333.
- "The Explanative Recourse to Realism", *International Studies in the Philosophy of Science* 3 (1988), pp. 2–18.
- "Truth and Beauty in Scientific Reason", *Synthese* 78 (1989), pp. 25–51.
- "Dirac and the Aesthetic Evaluation of Theories", *Methodology and Science* 23 (1990), pp. 87–102.
- "The Simplicity of Theories: Its Degree and Form", *Journal for General Philosophy of Science* 22 (1991), pp. 1–14.
- "Scientists' Aesthetic Judgements", *British Journal of Aesthetics* 31 (1991), pp. 332–341.
- "Competition Among Scientific Disciplines in Cold Nuclear Fusion Research", *Science in Context* 5 (1992), pp. 17–49.
- "Scientific Realism and the Criteria for Theory-choice", *Erkenntnis* 38 (1993), pp. 203–222.
- "The Formation of Styles: Science and the Applied Arts", in *The Question of Style in Philosophy and the Arts*, edited by Caroline A. van Eck, James W. McAllister, and Renée van de Vall. Cambridge: Cambridge University Press, 1995; pp. 157–176.
- "Scientists' Aesthetic Preferences among Theories: Conservative Factors in Revolutionary Crises", in *The Elusive Synthesis: Aesthetics and Science*, edited by Alfred I. Tauber. Dordrecht: Kluwer, 1996; pp. 169–187.
- "The Evidential Significance of Thought Experiment in Science", *Studies in History and Philosophy of Science* 27 (1996), pp. 233–250.
- "Philosophy of Science in the Netherlands", *International Studies in the Philosophy of Science* 11 (1997), pp. 191–204.
- "Phenomena and Patterns in Data Sets", *Erkenntnis* 47 (1997), pp. 217–228.
- "Laws of Nature, Natural History, and the Description of the World", *International Studies in the Philosophy of Science* 11 (1997), pp. 245–258.
- "Is Beauty a Sign of Truth in Scientific Theories?", *American Scientist* 86 (1998), pp. 174–183.
- "Waarheid en schoonheid in de wetenschap", *Algemeen Nederlands Tijdschrift voor Wijsbegeerte* 91 (1999), pp. 153–167.
- "Universal Regularities and Initial Conditions in Newtonian Physics", *Synthese* 120 (1999), pp. 325–343.
- "Relativism" and "Unification of Theories", in *A Companion to the Philosophy of Science*, edited by W. H. Newton-Smith. Oxford: Blackwell, 2000; pp. 405–407, 537–539.
- "De wetenschapsstudies in Nederland en hun maatschappelijke rol", *Gewina: Tijdschrift voor de Geschiedenis der Geneeskunde, Natuurwetenschappen, Wiskunde en Techniek* 25 (2002), pp. 8–19.

- "Recent Work on Aesthetics of Science", *International Studies in the Philosophy of Science* 16 (2002), pp. 7–11.
- "Bellezza matematica", in *Matematica e cultura 2002*, edited by Michele Emmer. Milan: Springer-Verlag Italia, 2002; pp. 125–134.
- "Historical and Structural Approaches in the Natural and Human Sciences", in *The Future of the Sciences and Humanities*, edited by Peter Tindemans, Alexander Verriijn-Stuart, and Rob Visser. Amsterdam: Amsterdam University Press, 2002; pp. 19–54.
- "Effective Complexity as a Measure of Information Content", *Philosophy of Science* 70 (2003), pp. 302–307.
- "Algorithmic Randomness in Empirical Data", *Studies in History and Philosophy of Science* 34 (2003), pp. 633–646.
- "Das Virtuelle Labor: Gedankenexperimente in der Mechanik des siebzehnten Jahrhunderts", translated by Saskya I. Jain, in *Kunstkammer, Laboratorium, Bühne: Schauplätze des Wissens im 17. Jahrhundert*, edited by Helmar Schramm, Ludger Schwarte, and Jan Lazardzig. Berlin: De Gruyter, 2003; pp. 35–55.
- "Absence of Contingency in the Newtonian Universe", *Foundations of Science* 9 (2004), pp. 191–210.
- "Thought Experiments and the Belief in Phenomena", *Philosophy of Science* 71 (2004), pp. 1164–1175.
- "Algorithmic Compression of Empirical Data: Reply to Twardy, Gardner, and Dowe", *Studies in History and Philosophy of Science* 36 (2005), pp. 403–410.
- "The Composite Species Concept: A Rigorous Basis for Cladistic Practice" (with D. J. Kornet), in *Current Themes in Theoretical Biology: A Dutch Perspective*, edited by Thomas A. C. Reydon and Lia Hemerik. Dordrecht: Springer, 2005; pp. 95–127.
- "Mathematical Beauty and the Evolution of the Standards of Mathematical Proof", in *The Visual Mind II*, edited by Michele Emmer. Cambridge, Mass.: MIT Press, 2005; pp. 15–34.
- "The Virtual Laboratory: Thought Experiments in Seventeenth-century Mechanics", in *Collection, Laboratory, Theater: Scenes of Knowledge in the 17th Century*, edited by Helmar Schramm, Ludger Schwarte, and Jan Lazardzig. New York: De Gruyter, 2005; pp. 35–56.
- "Emotion, Rationality, and Decision Making in Science", in *Logic, Methodology and Philosophy of Science: Proceedings of the Twelfth International Congress*, edited by Petr Hájek, Luis Valdés-Villanueva, and Dag Westerståhl. London: King's College Publications, 2005; pp. 559–576.
- "Die Rhetorik der Mühelosigkeit in der Wissenschaft und ihre barocken Ursprünge", translated by Christiane Hitzemann, in *Spektakuläre Experimente. Praktiken der Evidenzproduktion im 17. Jahrhundert*, edited by Helmar Schramm, Ludger Schwarte, and Jan Lazardzig. Berlin: De Gruyter, 2006; pp. 154–175.
- "Model Selection and the Multiplicity of Patterns in Empirical Data", *Philosophy of Science* 74 (2007), pp. 884–894.
- "Dilemmas in Science: What, Why, and How", in *Knowledge in Ferment: Dilemmas in Science, Scholarship and Society*, edited by Adriaan in 't Groen, Henk Jan de Jonge, Eduard Klasen, Hilje Papma, and Piet van Slooten. Leiden: Leiden University Press, 2007; pp. 13–24.
- "The Ontology of Patterns in Empirical Data", *Philosophy of Science* 77 (2010), pp. 804–814.
- "What Do Patterns in Empirical Data Tell Us About the Structure of the World?", *Synthese* 182 (2011), pp. 73–87.
- "Climate Science Controversies and the Demand for Access to Empirical Data", *Philosophy of Science* 79 (2012), pp. 871–880.

- "Thought Experiment and the Exercise of Imagination in Science", in *Thought Experiments in Philosophy, Science, and the Arts*, edited by Mélanie Frappier, Letitia Meynell, and James R. Brown. New York: Routledge, 2013; pp. 11–29.
- "Empirical Evidence that the World Is Not a Computer", in *Imagine Math 2: Between Culture and Mathematics*, edited by Michele Emmer. Milan: Springer, 2013; pp. 127–135.
- "Reasoning with Visual Metaphors", *Knowledge Engineering Review* 28 (2013), pp. 367–379.
- "Methodological Dilemmas and Emotion in Science", *Synthese* 191 (2014), pp. 3143–3158.
- "Le Rôle de l'émotion dans la résolution des dilemmes méthodologiques en science", in *Sciences et décision*, edited by Daniel Andler. Besançon: Presses universitaires de Franche-Comté, 2015; pp. 77–92.
- "Rhetoric of Effortlessness in Science", *Perspectives on Science* 24 (2016), pp. 145–166.
- "Historicism and Cross-culture Comparison", in *The Routledge Companion to Thought Experiments*, edited by Michael T. Stuart, Yiftach Fehige, and James R. Brown. London: Routledge, 2018; pp. 425–438.

Chapters and articles accepted and in the process of publication

- "Using History as Evidence in Philosophy of Science: A Methodological Critique", *Journal of the Philosophy of History* 12 (2018).
- "Scientists' Reuse of Old Empirical Data: Epistemological Aspects", *Philosophy of Science* 85 (2018).

Editorials in *International Studies in the Philosophy of Science*

- "New Editorial Team and Policy Statement", *ISPS* 15 (2001), pp. 229–230.
- "The Integration of European Higher Education and the Nature of Philosophy", *ISPS* 17 (2003), pp. 3–5.
- "Contours of a European Philosophy of Science", *ISPS* 22 (2008), pp. 1–3.
- "Editor's Report", yearly since 2002

Discussion notes and book reviews

- Review of Pietro Redondi and P. V. Pillai, eds., *The History of Sciences: The French Debate* (London: Sangam Books, 1989), *International Studies in the Philosophy of Science* 4 (1990), pp. 221–223.
- Review of Roy A. Sorensen, *Thought Experiments* (New York: Oxford University Press, 1992), *Mind* 102 (1993), pp. 686–689.
- "Warrants for Truth", review of Jarrett Leplin, *A Novel Defense of Scientific Realism* (New York: Oxford University Press, 1997) and Roger G. Newton, *The Truth of Science: Physical Theories and Reality* (Cambridge, Mass.: Harvard University Press, 1997), *The Times Literary Supplement* no. 4963 (15 May 1998), p. 28.
- "Author's Response" (to an essay review by Theo C. Meyering of *Beauty and Revolution in Science*), *Metascience* 7 (1998), pp. 112–116.
- Review of Caroline A. Jones and Peter Galison, eds., *Picturing Science, Producing Art* (London: Routledge, 1998), *British Journal of Aesthetics* 40 (2000), pp. 270–272.
- Review of Anthony Zee, *Fearful Symmetry: The Search for Beauty in Modern Physics* (Princeton, N.J.: Princeton University Press, 1999), *Isis* 92 (2001), pp. 130–131.
- "Experimenten en de plaatsen van kennis", *Algemeen Nederlands Tijdschrift voor Wijsbegeerte* 95 (2003), pp. 211–214.
- Review of Malcolm Gladwell, *Blink: The Power of Thinking Without Thinking* (New York: Little, Brown, 2005), *Minds and Machines* 17 (2007), pp. 125–128.

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