

HPS&ST Note

November 2017

Introduction

This HPS&ST monthly note is sent direct to about 7,450 individuals who directly or indirectly have expressed an interest in the contribution of history and philosophy of science to theoretical, curricular and pedagogical issues in science teaching, and/or interests in the promotion of innovative and more engaging and effective teaching of the history and philosophy of science. The note is sent on to different international and national HPS lists and international and national science teaching lists. In print or electronic form it has been published for 20+ years.

The note seeks to serve the diverse international community of HPS&ST scholars and teachers by disseminating information about events and publications that connect to concerns of the HPS&ST community.

Contributions to the note (publications, conferences, Opinion Piece, etc.) are welcome and should be sent direct to the editor: Michael R. Matthews, UNSW, m.matthews@unsw.edu.au .

The Note, along with RESOURCES, OBITUARIES, OPINION PIECES and more, are lodged at the website: <http://www.hpsst.com/>

Philosophy Publications Archive: New Site for Downloadable Papers

PhilPapers Foundation is pleased to announce the launch of a new site for holding and gratis downloading of philosophical papers: [PhilArchive](#).

As its name indicates, PhilArchive is an open access e-print archive for philosophical works. PhilArchive is a relaunch and rebranding of the archive service that has been present within PhilPapers since 2009. The archive service has been widely used, but we have found that some philosophers are unaware of it because of its location within PhilPapers. We anticipate that the new PhilArchive website will significantly increase awareness and use of the service. It will also help to logically separate PhilPapers open access content (which is completely free to all) from its indexing service (for which we ask universities to pay a fee).

PhilArchive includes 28,000+ works, under 5,300 topics making it by far the largest open access archive in philosophy. PhilPapers and PhilArchive will remain tightly integrated, with all archived papers on one service automatically appearing on the other service. PhilArchive also introduces some important new features, including the ability to make different versions of a paper accessible for citation.

We strongly encourage all philosophers to archive their papers on PhilArchive as a matter of course.

We also encourage all users to regularly monitor PhilArchive for new papers. You can set up regular email alerts and also search by fine-grained topics. We hope that the site will help make archival a standard practice in philosophy, as it already is in the physical sciences and some other areas.

Visit [PhilArchive](#)

David Bourget (Western)
David Chalmers (NYU, ANU)
Co-Directors, PhilPapers

The Evolution of Knowledge: &HPS7: Integrated History and Philosophy of Science, 7th conference

Leibniz Universität Hannover, Hannover, Germany, July 5-7, 2018

The Committee for Integrated HPS and the Max Planck Institute for the History of Science invite the submission of individual paper and poster abstracts for “The Evolution of Knowledge/&HPS7”, the 7th conference in the series *Integrated History and Philosophy of Science*. We seek contributions that genuinely integrate the historical and philosophical analysis of science (i.e., the physical sciences, life sciences, cognitive sciences, and social sciences), or discuss methodological issues surrounding the prospects and challenges of integrating history and philosophy of science. (For information about &HPS and previous conferences, see <http://integratedhps.org/en/>)

The theme "evolution of knowledge" aims at refocusing the history and philosophy of science on long-term and global aspects. In recent years the history of science has increasingly transcended micro-histories paying attention to global contexts and long-term developments. What are the implications of this widened focus for philosophical and theoretical reflections on science and knowledge? What can such broader studies of macro and global history in turn learn from philosophical and theoretical investigations? The organizers especially, but not exclusively, welcome contributions dealing with such questions in the hope to create a novel ground for fruitful encounters between the philosophy and the history of science.

<https://easychair.org/conferences/?conf=hps7>

Deadline for submission of paper and poster abstracts: **December 15, 2017**; Date of notification: **February 15, 2018**

Please direct any inquiries to:

Uljana Feest feest@philos.uni-hannover.de (Committee for Integrated HPS)

or

Ohad Parnes oparnes@mpiwg-berlin.mpg.de (MPIWG)

History, Philosophy, and Science Teaching: New Perspectives

Michael R. Matthews (ed.), Springer 2018. ISBN 978-3-319-62614-7

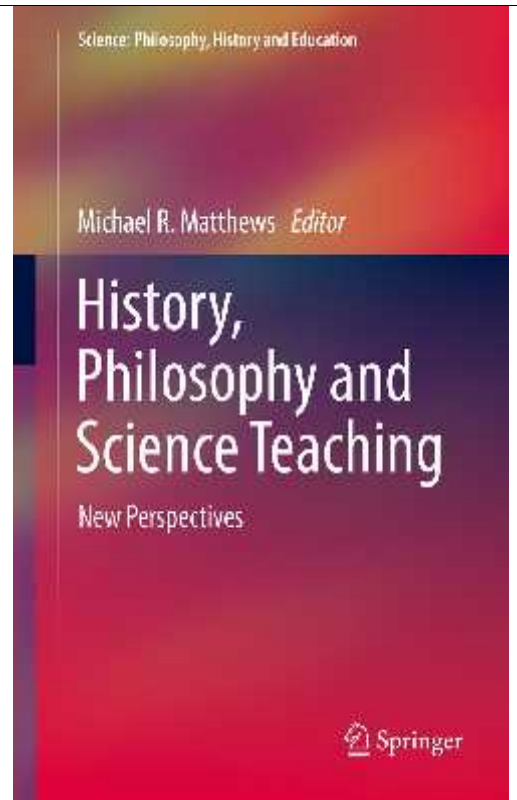
The anthology of 326 pages has 12 chapters in four sections.

This book is a timely reminder of why history and philosophy of science are urgently needed to support understanding of science. From major traditions such as the Enlightenment to the tensions around cultural studies of science, the book provides a comprehensive context for the scientific endeavour, drawing on curriculum and instructional examples. -
Sibel Erduran, University of Oxford, UK

The scholarship that each of the authors in this volume offers deepens our understanding of what we teach in science and why that understanding matters. This is an important book exploring a wide set of issues and should be read by anyone with an interest in science or science education.-
Jonathan Osborne, Stanford University, USA

This volume presents new and updated perspectives in the field, such as the Enlightenment Tradition, Cultural Studies, Indoctrination in Science Education, and Nature of Science. Highly recommended. -
Mansoor Niaz, Universidad de Oriente, Venezuela

This volume provides an extremely valuable set of insights into educational issues related to the history and philosophy of science.-
Michael J Reiss, University College London, UK



Section I Science, Culture, And Education

1 Michael R. Matthews

Feng Shui: Some Educational Responsibilities and Opportunities

2 Robert Nola

The Enlightenment: Truths Behind a Misleading Abstraction

3 Deniz Peker & Özgür Taskin

The Enlightenment Tradition and Science Education in Turkey

4 Christine McCarthy

Cultural Studies of Science Education: A Philosophical Appraisal

Section II Teaching and Learning Science

5 Gregory J. Kelly & Peter R. Licona

Epistemic Practices and Science Education

6 Erin E. Peters-Burton

Strategies for Learning Nature of Science Knowledge: A Perspective from Educational Psychology

7 Ernst Mach

About the Psychological and Logical Moment in Natural Science Teaching (1890), [Hayo Siemsen translation]

Section III Curriculum Development and Justification

8 Igal Galili

Scientific Knowledge as a Culture: A Paradigm for Meaningful Teaching and Learning of Science

9 Yaron Lehavi & Bat-Sheva Eylon

Integrating Science Education Research, Science and History and Philosophy of Science in Developing an Energy Curriculum

10 Mike U. Smith

Teaching Evolution: Criticism of Common Justifications and the Proposal of a More Warranted One

Section IV Indoctrination and Science Education

11 Lena Hansson

Science Education, Indoctrination, and the Hidden Curriculum

12 Paul A. Wagner

Warranted Indoctrination in Science Education

More information at: <http://www.springer.com/gp/book/9783319626147>

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University College London, Downloadable Open-Access Book

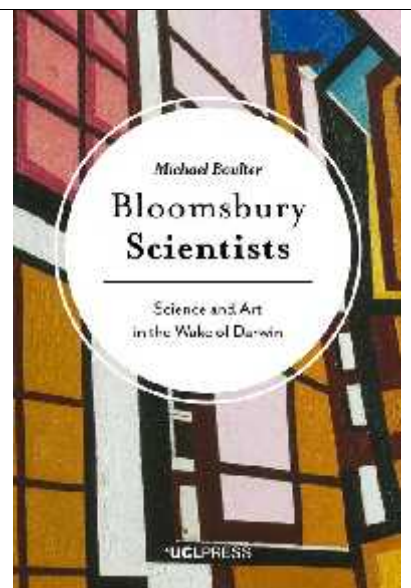
UCL Press is delighted to announce a new open access book that may be of interest to members of this list:

Michael Boulter, *Bloomsbury Scientists: Science and Art in the Wake of Darwin*.

Downloadable gratis at: <https://goo.gl/Gevke8>

“Bloomsbury Scientists is the story of the network of scientists and artists living in a square mile of London before and after World War I. This inspired group of men and women viewed creativity and freedom as the driving force behind nature, and each strove to understand this in their own inventive way. Their collective energy changed the social mood of the era and brought a new synthesis of knowledge to ideas in science and art. Class barriers were threatened as power shifted from the landed oligarchy to those with talent and the will to make a difference.”

Michael Boulter obtained his BSc (1964) and PhD (1970) at UCL, and went on to become Professor of Palaeobiology at the University of East London. He has directed projects for UNESCO, NATO and ICSU.



Rounded Globe, Downloadable Open-Access Books

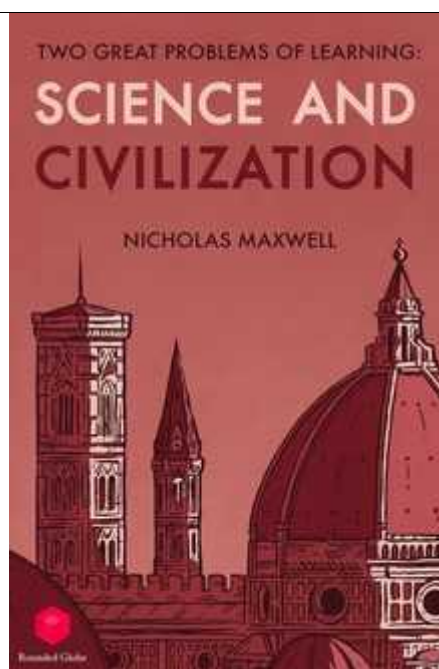
Rounded Globe Publishers have a large list of book across many fields that are freely downloadable as e-books. A unique feature of the publisher's operation is readers can both download the books gratis, and if they so wish, can also make a payment/donation direct to the author through the Rounded Globe website. A suggested, but completely voluntary amount is USD5.

Two books that should be of interest to many on the HPS&ST List are:

Nicholas Maxwell, *Two Great Problems of Learning: Science and Civilization*.

“Two great problems of learning confront humanity: learning about the nature of the universe and about ourselves and other living things as a part of the universe, and learning how to become civilized. The first problem was solved, in essence, in the seventeenth century, with the creation of modern science. But the second problem has not yet been solved.

Solving the first problem without also solving the second puts us in a situation of great danger. All our current global problems have arisen as a result. What we need to do, in response to this unprecedented crisis, is learn from our solution to the first problem how to solve the second.”



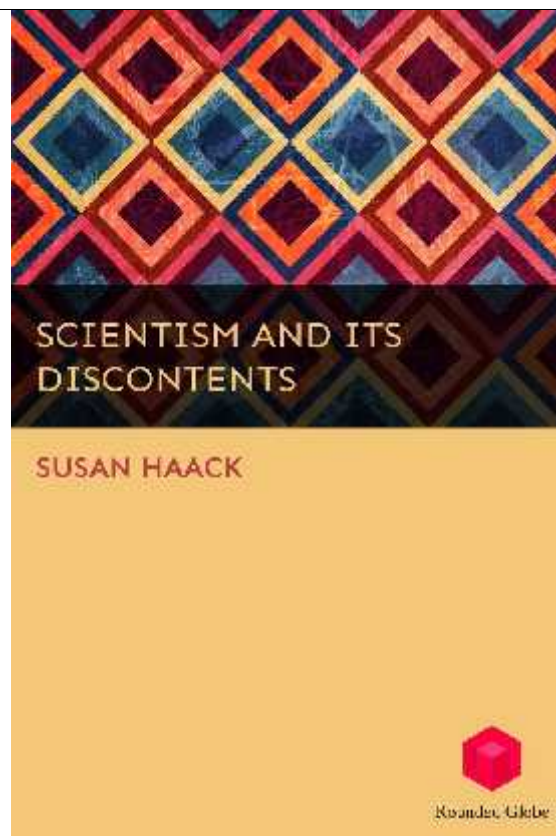
Available at:

<https://roundedglobe.com/books/b88f518b-0c39-4910-ab25-11d5dd2fa601/>

Susan Haack, *Scientism and Its Discontents*

In Defending Science—Within Reason (2003), Haack argued that neither the cynicism then in vogue among post-modernist, post-colonialist “science critics,” nor the uncritical deference characteristic of scientism, is defensible. The achievements of the sciences deserve our respect, even our admiration; but, like all human enterprises, the sciences are fallible, imperfect, stumbling, and susceptible to corruption.

*These days, anti-scientific cynicism seems to be waning; but scientism, the opposite extreme, is flourishing—in public-policy debates, in the legal system, in education, and in philosophy. In *Scientism and its Discontents* Haack shows that this new scientism is no less confused, and no less damaging to our intellectual culture, than the older cynicism.””*



Available at:

<https://roundedglobe.com/books/1b42f98a-13b1-4784-9054-f243cd49b809/>

RISE Special Issue: Epistemic Insight – teaching and learning about the nature of science in real world and multidisciplinary arenas

Epistemic Insight (EI) is a phrase which broadly means ‘knowledge about knowledge’. Here we are using epistemic insight to refer in particular to students’ developing understanding and appreciation of the nature of science particularly in terms of how science relates to religion and the wider humanities.

A call for papers for a special edition of *Research in Science Education* on this theme is now open and will close on **March 1st 2018**.

The guest editors are Berry Billingsley, Professor of Science Education at Canterbury Christ Church University, UK and Dr Sharon Fraser, Associate Professor of Science Education at the University of Tasmania, Australia. The edition is scheduled for publication in November 2018.

Papers (research-based and conceptual) for this special issue will use the notion of epistemic insight as a stimulus to examine and discuss how science is understood and taught in schools and beyond. All levels of education from primary to tertiary and teacher education are encompassed in the issue.

Please email papers and/or queries and outlines to the guest editors: Prof Billingsley (berry.billingsley@canterbury.ac.uk) and/or Dr Fraser (sharon.fraser@utas.edu.au)

Opinion Page: The Future of Philosophy, the Seduction of Scientism

Susan Haack, Philosophy and Law Departments, University of Miami, FL, USA
Email: shaack@law.miami.edu

Science is certainly a good thing. But, of course, it's not a *perfectly* good thing, much less the *only* good thing, or even the only legitimate form of inquiry. It's a human enterprise and, like all human enterprises, fallible, imperfect, and incomplete; moreover, there are many legitimate questions beyond its scope. The sciences have achieved remarkable things; but we shouldn't allow respect for those remarkable achievements to transmute into uncritical deference to anything and everything bearing the label, "scientific." That is scientism.

Of late, the scientism that now seems ubiquitous in our culture has come to threaten philosophy too. Self-styled "evolutionary philosophers" and "neuro-philosophers" try to colonize ethics, epistemology, and philosophy of mind; self-styled "experimental philosophers" try to squeeze substantial philosophical results out of psychological surveys; "radically naturalistic" metaphysicians urge that the sciences hold exclusive authority on all legitimate empirical questions; and evangelical atheists claim that physics fixes all the facts, so that values—ethical, political, legal, aesthetic, epistemological, etc.—can be nothing but illusion.

But scientific philosophy is badly flawed: at best, it ducks or flubs key philosophical questions; at worst, it undermines the very science on which it relies, by denying the legitimacy of standards of better and worse evidence or the reality of the human capacities necessary for the scientific enterprise to be even possible. Why, then, has it proven so attractive to so many?

A key part of the explanation seems to be an inchoate sense that something's badly amiss with our discipline, that we can't just go on with philosophical business-as-usual. And, indeed, something *is* rotten in the state of philosophy: the discipline becomes every day more specialized, more fragmented into cliques, niches, cartels, and fiefdoms, and more determinedly forgetful of its own history.

More and more journals are crammed with more and more unread — and all too often, unreadable — articles about what X said about Y's interpretation of Z's response to W. Anyone with enough frequent-flyer miles to upgrade to publication-by-invitation is relieved to bypass a relentlessly conventional peer-review process often crippled by tunnel-vision, cronyism, and self-promotion. I won't even *mention* the decades of over-production of Ph.D.s, or the disastrous effects of that horrible, and horribly corrupting, "ranking" of philosophy graduate programs.

Combine this with the fact that the neo-analytic philosophical establishment, though institutionally still pretty firmly entrenched, seems close to intellectual exhaustion, and it's certainly no wonder that many are bored and restive, casting around for something new; and no wonder, either, that we're beset by passing fads and fashions — prominent among them

these scientific fads and fashions. Unfortunately, far from solving the problems of our profession, this hydra-headed scientism makes things, not better, but worse; it *seems* to offer quick and easy solutions to long-standing, knotty problems, but in the end, it is nothing but a confession of philosophical failure.

None of this is very surprising. For, these days, almost everything about the way universities are organized conspires against the spirit of serious inquiry. The professional administrators who now “manage” universities stress productivity, the need for everyone to be research-active, and above all, anything and everything that could possibly be described as “prestigious.” It’s bad enough that professors are constantly distracted by conference calls, requests for referee’s reports on the ever-growing flood of submissions, pointless meetings, and time-consuming electronic noise; but the demands for abstracts of the paper or the lecture you haven’t yet written and for proposals spelling out the important discoveries you will make in the next few years, and the tyranny of the annual review demanding lists of the honors, the prestigious publications, and the coups in landing grant money you have pulled off over the last twelve months (!) are much *more* corrupting. For these erode the very virtues needed to get good work done: they positively discourage patience and painstaking and encourage, instead, self-promotion, self-deception, effort to create the *appearance* of progress, genuine or not.

These perverse incentives threaten the health of the sciences themselves, encouraging salami publishing, misleading multiple attributions of authorship, the corruption and manipulation of the peer review process, the bureaucracy, the endless hours spent writing (and reading) grant applications, etc. But it’s no wonder that their consequences for the humanities in general, and for philosophy in particular — where the pressure to accommodate hard facts is looser and more indirect — have been even worse; nor that they have helped make scientific philosophy so irresistibly seductive to so many.

More than a century ago, the great American philosopher Charles Sanders Peirce wrote movingly of his hopes for the future:

We must expect arduous labours [*sic*] yet to be performed before philosophy can work its way out of the jungle and emerge on the high road of science. But the prospect is no longer so desperately gloomy, if philosophers will only resign themselves to the toilsome procedure of science, and recognize that a single generation can make little headway, but yet may faithfully clear away a few obstacles, and lying down to die, resign the axe to their successors.

Philosophy, he argued, should be conducted in the same spirit—“drawing the bow upon truth, with intentness in the eye, with energy in the arm”—that enabled those heroes of the history of science to make their discoveries. But when our attention is systematically distracted, and our energy regularly sapped, the jungle grows thicker every day.

Above is excerpted and adapted from Susan Haack, *Scientism and Its Discontents* (2017), downloadable free at:

<https://roundedglobe.com/books/038f7053-e376-4fc3-87c5-096de820966d/Scientism%20and%20its%20Discontents/>

A substantial collection of Susan Haack’s papers and book flyers can be found at <https://miami.academia.edu/SusanHaack>.

See especially:

- Susan Haack, "The Real Question: Can Philosophy be Saved?" *Free Inquiry* 37, no.6 (2017): 40-43.
- Susan Haack, "The Fragmentation of Philosophy, the Road to Reintegration," in Julia Göhner and Eva-Maria Jung, eds., *Susan Haack: Reintegrating Philosophy* (Berlin: Springer, 2016), 3-33.
- Susan Haack, "Out of Step: Academic Ethics in a Preposterous Environment," in Susan Haack, *Putting Philosophy to Work: Inquiry and Its Place in Culture* (Amherst, NY: Prometheus Books, second ed., 2013), 251-68 (text) and 315-17 (notes).
- Susan Haack, "Six Signs of Scientism" (2010), in Haack, *Putting Philosophy to Work*, 105-120 (text) and 278-83 (notes).
- Susan Haack, "The Integrity of Science: What It Means, Why It Matters" (2006) in Haack, *Putting Philosophy to Work*, 121-40 (text) and 283-93 (notes).
- Susan Haack, *Defending Science—within Reason: Between Scientism and Cynicism* (Amherst, NY: Prometheus Books, 2003), especially chapter 11, on the value, and the values, of science.
- Susan Haack, "Preposterism and Its Consequences" (1996), in Susan Haack, *Manifesto of a Passionate Moderate: Unfashionable Essays* (Chicago: University of Chicago Press, 1998), 188-208.

Invitation to Submit

In order to make better educational use of the wide geographical and disciplinary reach of this *HPS&ST Note*, invitations are extended for readers to contribute opinion or position pieces or suggestions about any aspect of the past, present or future of HPS&ST studies.

Contributions can be sent direct to editor. Ideally, they might be pieces that are already on the web, in which case a few paragraphs introduction, with link to web site can be sent, or else the pieces will be put on the web with a link given in the Note.

They will be archived in the OPINION folder at the HPS&ST web site:
(<http://www.hpsst.com/>).

Previous HPS&ST Note Opinion Pieces (at <http://www.hpsst.com/>)

Nicholas Maxwell, University College London, *What's Wrong with HPS and What Needs be Done to Put it Right?* (June 2017)

Heinz W. Drodste, *An Interview with Mario Bunge*

Nicholas Maxwell, University College London, *The Crisis of Our Times and What to do About It*.

Eric Scerri, UCLA, *Bringing Science Down to Earth*

Robert Nola, University of Auckland, *Fake News in the Post-Truth World*, (February 2017)

Michael D. Higgins, President of Ireland, *The Need to Teach Philosophy in Schools* (December 2016)

Philip A. Sullivan, University of Toronto, *What is wrong with Mathematics Teaching in Ontario?* (July 2016)

Gregory Radick, Leeds University, *How Mendel's legacy holds back the teaching of science* (June 2016).
Matthew Stanley, New York University, *Why Should Physicists Study History?*

Recent HPS&ST Research Articles

Noctua, (Year IV, Numbers 1-2.)

Theme: Philosophy and Mathematics at the Turn of the 18th Century: New Perspectives

Available at: <http://www.didaschein.net/ojs/index.php/noctua/issue/current/showToc>

Teorema. (Vol. XXXVI, Number 3, Autumn 2017)

Thematic Issue: Experimental Philosophy

<https://dialnet.unirioja.es/servlet/revista?codigo=4274> (numbers available since 1971)

Blumenthal, G. Ladyman, J. (2017) Theory comparison and choice in chemistry, 1766–1791. *Foundations of Chemistry*, 1-21. Doi: s10698-017-9301-8. Online first

Elgin, M., Sober, E. (2017) Popper's Shifting Appraisal of Evolutionary Theory. *HOPOS: The Journal of the International Society for the History of Philosophy of Science*, 7(1), 31-55. doi: 10.1086/691119

Gasparatou, R. (2017) Scientism and Scientific Thinking: A Note on Science Education. *Science & Education*, 1-14. doi: 10.1007/s11191-017-9931-1 online first

Haskel-Ittah, M., Yarden, A. (2017) Toward Bridging the Mechanistic Gap Between Genes and Traits by Emphasizing the Role of Proteins in a Computational Environment. *Science & Education*, 1.18. doi: 10.1007/s11191-017-9927-x online first

Hecht, E. (2017) Kepler and the origins of pre-Newtonian mass. *American Journal of Physics* 85, 115. doi: 10.1119/1.4972044

Kokkonen, T. (2017). Models as Relational Categories. *Science & Education*, 1-22. Doi: 10.1007/s11191-017-9928-9 online first

Icard, Thomas (2017) Bayes, Bounds, and Rational Analysis. *Philosophy of Science*. Doi: 10.1086/694837 online first

Miller, D. P. (2017) The story of 'Scientist: The Story of a Word'. *Annals of Science*, 1-7. doi: 10.1080/00033790.2017.1390155 online first

Mormann, T. (2017) Philipp Frank's Austro-American Logical Empiricism. *HOPOS: The Journal of the International Society for the History of Philosophy of Science* 7(1), 56-87. doi: 10.1086/687595

Schmiemann, P., Nehm, R. H, Tornabene, R. E (2017) Assessment of Genetics Understanding: Under What Conditions Do Situational Features Have an Impact on Measures? *Science & Education*, 1-31. doi: 10.1007/s11191-017-9925-z online first

Recent HPS&ST Related Books

Bowler, Peter J. (2017) *A History of the Future: Prophets of Progress from H. G. Wells to Isaac Asimov*. Cambridge: CUP. ISBN: 9781316602621

“In this wide-ranging survey, Peter J. Bowler explores the phenomenon of futurology: predictions about the future development and impact of science and technology on society and culture in the twentieth century. Utilising science fiction, popular science literature and the novels of the literary elite, Bowler highlights contested responses to the potential for

revolutionary social change brought about by real and imagined scientific innovations. Charting the effect of social and military developments on attitudes towards innovation in Europe and America, Bowler shows how conflict between the enthusiasm of technocrats and the pessimism of their critics was presented to the public in books, magazines and exhibitions, and on the radio and television. A series of case studies reveals the impact of technologies such as radio, aviation, space exploration and genetics, exploring rivalries between innovators and the often unexpected outcome of their efforts to produce mechanisms and machines that could change the world.” (From the publisher)

More information at: <http://www.cambridge.org/us/academic/subjects/history/history-science-and-technology/history-future-prophets-progress-h-g-wells-isaac-asimov?format=PB#5GDMOUGDe8YIpLkQ.97>

Elgin, Catherine Z. (2017). *True Enough*. Cambridge, MA: The MIT Press. ISBN: 9780262036535

“True Enough advances Catherine Elgin’s pioneering endeavor to develop an epistemology consonant with the practices of science. While others see idealizations and other ‘false models’ as mere heuristic devices, Elgin’s analysis explains how they play an ineliminable role in advancing scientific understanding. The book provides a bridge between epistemology and philosophy of science by offering important insights for contemporary debates in the philosophy of scientific practice.” - Nancy J. Nersessian, Regents’ Professor Emerita of Cognitive Science, Georgia Institute of Technology; author of *Creating Scientific Concepts*

“If the aims and methods of science baffle you, this book offers the key to unlock their mysteries. It urges nothing less than a reorientation of epistemology away from truth and toward understanding. Rather than being a collection of individual facts, science offers an understanding of a wider range of phenomena. Understanding is not factive, and divergence from truth fosters rather than hinders the epistemic goals of science. This book is a must-read for anyone interested in the nature of scientific knowledge, and Elgin’s provocative thesis will give food for thought to students of science for years to come.” - Roman Frigg, Professor of Philosophy, London School of Economics

More information at: <https://mitpress.mit.edu/books/true-enough>

Greer, Sandra C. (2017) *Elements of Ethics for Physical Scientists*. Cambridge, MA: The MIT Press. ISBN: 9780262036887

“This book offers the first comprehensive guide to ethics for physical scientists and engineers who conduct research. Written by a distinguished professor of chemistry and chemical engineering, the book focuses on the everyday decisions about right and wrong faced by scientists as they do research, interact with other people, and work within society. The goal is to nurture readers’ ethical intelligence so that they know an ethical issue when they see one, and to give them a way to think about ethical problems.

“After introductions to the philosophy of ethics and the philosophy of science, the book discusses research integrity, with a unique emphasis on how scientists make mistakes and how they can avoid them. It goes on to cover personal interactions among scientists, including authorship, collaborators, predecessors, reviewers, grantees, mentors, and whistle-blowers. It considers underrepresented groups in science as an ethical issue that matters not only to those groups but also to the development of science, and it examines human participants and animal subjects. Finally, the book examines scientifically relevant social issues, including public policy, weapons research, conflicts of interest, and intellectual property.

“Each chapter ends with discussion questions and case studies to encourage debate and further exploration of topics. The book can be used in classes and seminars in research ethics and will be an essential reference for scientists in academia, government, and industry.”
(From the Publisher)

More information at: <https://mitpress.mit.edu/books/elements-ethics-physical-scientists>

Kampourakis, Kostas (2017) *Making Sense of Genes*. New York, NY: Cambridge University Press. ISBN: 9781107567498

‘A beautifully and lucidly written book of great insights ... I have not seen in one volume such clear analysis of the nuanced view of the ‘gene’ ... A valuable book that gives genes a new and accurate meaning and does justice to understanding genetics in a non-reductive [manner] through a systems approach. The clarity, precision and insights are wonderful.’
Sheldon Krimsky, Tufts University, Massachusetts

‘... an extremely intellectual and erudite treatment of the history and meaning of genes and genomes. The book is half hard-core genetics and half provocative and fascinating philosophy of science ... cogently written, highly informative and genuinely thought-provoking.’ John Avise, University of California

‘... it is really marvelous: very clearly written, very thoughtfully structured and marvellously sensitive to the needs of the reader, especially in providing ‘take-home message’ summaries just when and where they are most welcome. I especially admired the way the author consistently manages to help the reader dial down expectations when faced with hype about genetic tests and the latest ‘gene for’ discoveries.’ Gregory Radick, University of Leeds

‘There is a vast and curious mismatch between what biological science has discovered by empirical investigations on the mechanisms of heredity and the understanding of what appears to be the central concept, that of the gene. Despite careful attempts to show both the nature and the significance of this gap, the scientific media, and public perceptions of the concept, persistently follow a successfully popularized view that is not justified by what we now know. Kampourakis’ book is an excellent attempt to correct the situation ... by bringing impressive scholastic skills to tackle the problem, the author has in my view made a very major contribution. The book deserves very wide attention.’ Denis Noble, University of Oxford

CUP book trailer:

<https://www.youtube.com/watch?v=ut0UBQJqqbg&feature=youtu.be>

More information at: <http://www.cambridge.org/us/academic/subjects/life-sciences/genetics/making-sense-genes?format=PB#IA01Qa4Y7iSk6BtP.97>

Kampourakis, Kostas (2018) *Turning Points: How Critical Events Have Driven Human Evolution, Life, and Development*. Amherst NY: Prometheus Books

“In this extremely original, incisive, and informative treatise concerning human evolution, Kampourakis asserts that the evolution of our species, *Homo sapiens*, was determined by a number of contingent events, or ‘turning points,’ starting perhaps with the fusion of two chromosomes in one of our hominin ancestors two to four million years ago. Contingent events are also turning points that determine what we are as individuals. No biological

expertise is needed. . . . Whether or not you are persuaded by Kampourakis's arguments, you'll enjoy his originality and the multitude of his illuminating examples. I very much enjoyed the book." - Francisco J. Ayala, University Professor and Donald Bren Professor of Biological Sciences, University of California-Irvine

"Many people still believe that their lives are governed by fate; others have replaced the latter with the genetic plan in the DNA of our cells. Many, while not explicitly denying evolution, nevertheless accept that the emergence of humankind is the outcome of Intelligent Design. Kampourakis convincingly shows that all of these ideas are wrong. I am confident that by reading this book many readers will experience a healthy turning point in their worldview." - Alessandro Minelli, professor of zoology (ret.), University of Padova, and editor in chief, *Frontiers in Evolutionary Developmental Biology*

More information at: <https://www.penguinrandomhouse.com/books/556319/turning-points-by-kostas-kampourakis/>

Matthews, Michael (Ed.) (2017) *History, Philosophy and Science Teaching: New Perspectives*. Dordrecht: Springer. ISBN 978-3-319-62614-7

"This book is a timely reminder of why history and philosophy of science are urgently needed to support understanding of science. From major traditions such as the Enlightenment to the tensions around cultural studies of science, the book provides a comprehensive context for the scientific endeavour, drawing on curriculum and instructional examples." - Sibel Erduran, University of Oxford, UK

"The scholarship that each of the authors in this volume offers deepens our understanding of what we teach in science and why that understanding matters. This is an important book exploring a wide set of issues and should be read by anyone with an interest in science or science education."- Jonathan Osborne, Stanford University, USA

"This volume presents new and updated perspectives in the field, such as the Enlightenment Tradition, Cultural Studies, Indoctrination in Science Education, and Nature of Science. Highly recommended. - Mansoor Niaz, Universidad de Oriente, Venezuela

"This volume provides an extremely valuable set of insights into educational issues related to the history and philosophy of science."- Michael J Reiss, University College London, UK

More information at: <http://www.springer.com/gp/book/9783319626147>

Wagner, Paul A., Johnson, Daphne, Fair, Frank & Fasko Jr., Daniel (2018) *Thinking Ahead Engaging All Teachers in Critical Thinking*. Lanham, MD: Rowman & Littlefield. ISBN: 978-1-4758-4100-8

"To foster success for their students in our chaotic world, teachers must model deliberative reasoning and critic-creative thinking. Across a range of subjects, Wagner, Johnson, Fair and Fasko's book highlights effective instructional practices that infuse deep cognition and dialogue into classroom learning. A valuable resource for pre-service and in-service teachers." — Chris Dede, Wirth professor in Learning Technologies, Harvard University

More information at: <https://rowman.com/ISBN/9781475841008>

Wagner, Paul A., Johnson, Daphne, Fair, Frank & Fasko Jr., Daniel (2017) *Focus on Thinking: Engaging Educators in Higher-Order Thinking*. Lanham, MD: Rowman & Littlefield. ISBN 978-1-4758-3351-5

“*Focus on Thinking* makes a valuable contribution to teachers who are committed to encouraging their students to think more critically about their day-to-day learning experiences and about their worlds in general. The scripts provide powerful and appropriate exemplars of stimuli that can be used to encourage students to explore the meaning of concepts and effectively develop their reasoning skills. *Focus on Thinking* also provides a clear underpinning of practice within a well-grounded theoretical framework. This text supports and empowers teachers to adapt the guidelines given so that their teaching practice can be developed to encourage more skillful thinking in their students, while at the same time meeting the realities of core curricula and high stakes assessments. *Focus in Thinking* is clearly written, practical, wide-ranging yet focused, and it will be a welcome resource for teachers who are determined to support and challenge their students to think more critically”.

— Steven Trickey, Lecturer, School of Education, American University

More information at: <https://rowman.com/isbn/9781475833539>

Wagner, Paul A., Johnson, Daphne, Fair, Frank & Fasko Jr., Daniel (2016) *Thinking Beyond the Test: Strategies for Re-Introducing Higher-Level Thinking Skills*. Lanham, MD: Rowman & Littlefield. ISBN: 978-1-4758-2320-2

“In the wake of initiatives such as No Child Left Behind and the use of high-stakes testing, the emphasis in schools has been on drill and practice for the test. Genuine understanding and critical thinking have been increasingly shortchanged. As a result, students have fewer opportunities to advance their insight into cognitive and emotional challenges, even though both teachers and parents recognize the importance of developing deliberative and reflective thinking skills.

“This book uniquely combines two things. First, it provides resources for classroom teachers in grades 3 – 6 that make it possible for them, at a moment’s notice, to take advantage of a teachable moment by drawing students into productive intellectual discussions. Second, it gives the reader an overview of the rationale and the research base for engaging students in educational activities that are truly intellectual and that are not limited to training for testing success.” (From the Publisher)

More details at: <https://rowman.com/ISBN/9781475823202/Thinking-Beyond-the-Test-Strategies-for-Re-Introducing-Higher-Level-Thinking-Skills#>

Saatsi, Juha (Ed.) (2017) *The Routledge Handbook of Scientific Realism*. Oxford, UK: Routledge. ISBN: 9781138888852

“Scientific realism is a central, long-standing, and hotly debated topic in philosophy of science. Debates about scientific realism concern the very nature and extent of scientific knowledge and progress. Scientific realists defend a positive epistemic attitude towards our best theories and models regarding how they represent the world that is unobservable to our naked senses. Various realist theses are under sceptical fire from scientific antirealists, e.g. empiricists and instrumentalists. The different dimensions of the ensuing debate centrally connect to numerous other topics in philosophy of science and beyond.

“The Routledge Handbook of Scientific Realism is an outstanding reference source – the first collection of its kind – to the key issues, positions, and arguments in this important topic. Its thirty-four chapters, written by a team of international experts, are divided into five parts. (...) In these sections the core issues and debates presented, analysed, and set into broader historical and disciplinary contexts. The central issues covered include motivations and arguments for realism; challenges to realism from underdetermination and history of science; different variants of realism; the connection of realism to relativism and perspectivism; and the relationship between realism, metaphysics, and epistemology.

“The Routledge Handbook of Scientific Realism is essential reading for students and researchers in philosophy of science. It will also be very useful for anyone interested in the nature and extent of scientific knowledge.” (From the publisher)

More information at: <https://www.routledge.com/The-Routledge-Handbook-of-Scientific-Realism/Saatsi/p/book/9781138888852>

Salguero, C. Pierce (ed.) (2017) *Buddhism & Medicine: An Anthology of Premodern Sources*. New York: Columbia University Press. ISBN: 9780231179942

“This is a most unusual project. It will be a unique and valuable resource, both for students of Buddhism and for students of the history of medicine. There has never been anything like it in any language.”-Victor Mair, Professor of Chinese Language and Literature, University of Pennsylvania

“A welcome addition to studies involving the healing traditions connected with Buddhism in South, Southeast, and East Asia. It will appeal to students of Buddhism, Asian medicine, and, importantly, the history of medicine.”- Kenneth Zysk, University of Copenhagen

More information at: <https://cup.columbia.edu/book/buddhism-and-medicine/9780231179942>

Authors of HPS&ST-related papers and books are most welcome to bring them to attention of the Note’s assistant editor, Paulo Maurício at paulo.asterix@gmail.com for inclusion in these sections.

Coming HPS&ST Related Conferences

December 4-7, 2017, New Zealand Association of Philosophy (NZAP) Conference 2017
Dunedin, University of Otago, New Zealand

Details at: <http://www.otago.ac.nz/philosophy/misc-pages/NZAP-2017.html>

December 7–9, 2017, Genealogies of Knowledge I: Translating Political and Scientific Thought across Time and Space, Manchester, UK

Details at: <http://genealogiesofknowledge.net/2016/11/23/genealogies-knowledge-i-translating-political-scientific-thought-across-time-space/>

January 5-8, 2018, Episteme 7, biennial conference, Homi Bhabha Centre for Science Education, Mumbai, India,

Details at: <http://www.hbcse.tifr.res.in/episteme>

February 2-3, 2018, AAI/ACM Conference on AI, Ethics, and Society, New Orleans, USA.

More information at: <http://www.aies-conference.com/>

- February 8-10, 2018, 4th Conference of the Public Philosophy Network: 'Understanding Impact'. University of North Texas
 Details at: <https://philosophyimpact.org/ppn2018/>
- January 15-17, 2018, 7th International Conference on The History of Medicine in Southeast Asia (HOMSEA), Vientiane, Lao People's Democratic Republic.
 Inquiries: james.dunk@sydney.edu.au
- January 20-21, 2018, Eleventh Annual Cambridge Graduate Conference on the Philosophy of Mathematics and Logic, St John's College, Cambridge
 Details at: <https://www.phil.cam.ac.uk/events/camb-grad-conf-2018>
- January 26-27, 2018, New Perspectives on Truth and Deflationism. University of Salzburg
 More information at: <https://truthparadoxandcontext.com/conservativeness-workshop/>
- February 14-16, 2018, The Third Munich Workshop in the Philosophy of Institutions, Technical University of Munich/ Bavarian School of Public Policy, Munich, Germany
 More information: philosophyofinstitutions@hfp.tum.de
- March 10-13, 2018, NARST annual conference, Atlanta, USA
 Details at: <http://www.narst.org/>
- March 23-24, 2018, Joint Meeting of the South Carolina Society for Philosophy and the North Carolina Philosophical Society, Winthrop University (Rock Hill, SC), USA.
 Inquiries to: dholiday@coastal.edu
- March 23-24, 2018, Midsouth Philosophy Conference, Rhodes College, Memphis, TN, US.
 Details at: <https://sites.google.com/a/lclark.edu/midsouth/mpc/mupc>
- March 26-31, 2018, 37^o Congress Association des Sociétés de Philosophie de Langue Française, Rio de Janeiro, Brazil
 Details at: <http://www.imagination2018.fr/>
- March 30-31, 2018, Sixty Years of an Idea: Peter Winch's *The Idea of a Social Science* after more than Half a Century, University of Pécs, Hungary
 More information: Dr. Akos Sivado, akos.sivado@gmail.com deadline: 1st December
- March 30-April 1, 2018, 13th Maghrebian Colloquium on the History of Arabic Mathematics, Tunis City
 Information from Mahdi Abdeljaouad mahdi.abdeljaouad@gmail.com
- April 4-6, 2018, BSHS Postgraduate Conference 2018, Centre for the History of Science, Technology and Medicine (CHSTM), University of Manchester, UK.
 Details at: <http://www.bsbs.org.uk/conferences/postgraduate-conference>
- April 6-7, 2018, Humanities for STEM: Using Archives to Bridge the Two Culture Divide, NYU Tandon School of Engineering in Brooklyn, NY.
 Inquiries: humanitiesforSTEMsymposium@nyu.edu
- April 6-7, 2018, Learning from Empirical Approaches to HPS. Center for Philosophy of Science, University of Pittsburgh, Pittsburgh, PA, USA
 More information at:
http://www.pitt.edu/~pittctr/Events/All/Conferences/others/other_conf_2017-18/04-06-18_leahps/leahps.html
- April 18-20, 2018, Evolution and Moral Epistemology, Utrecht University, The Netherlands.
 More information at: <http://www.evoethics.com/evolution-and-moral-epistemology-2018.html>
- April 26, 2018, Graduate Philosophy Conference, Department of Philosophy, National Taiwan University.
 More information at: <http://ntu-graduate-philosophy-conference.webnode.tw/>

- May 16-19, 2018, Scientiae: Disciplines of Knowing in the Early Modern World. University of Minnesota, Twin Cities, Minneapolis, USA
Inquiries to: scientiaeminnesota@gmail.com
- May 18-20, 2018, 46th annual meeting of the Society for Exact Philosophy. University of Connecticut, USA.
More information at: <http://www.phil.ufl.edu/SEP/meeting/2018/index.html>
- May 31, June 1, 2018, Is Religion Natural?, Centre for Ethics and the Centre Pieter Gillis, University of Antwerp (Belgium)
Inquiries with Esther Kroeker: esther.kroeker@uantwerpen.be
- May 31, June 2, 2018, Moral Epistemology. Centre for Moral Philosophy and Applied Ethics, ACU, Melbourne, Australia.
Inquiries to: david.killoren@acu.edu.au
- June 4-7, 2018, Canadian Philosophical Association: 2018 Annual Congress. Montreal, Quebec, Canada
More information at: <https://www.acpepa.ca/cpages/home-page>
- June 14-15, 2018, Explanatory Power. A workshop in the DACH project: Inferentialism, Bayesianism, and Scientific Explanation. University of Geneva.
More information at:
[http://www.unige.ch/lettres/philos/files/1114/9917/0204/Explanatory Power.pdf](http://www.unige.ch/lettres/philos/files/1114/9917/0204/Explanatory_Power.pdf)
inquiries to: lorenzo.casini@unige.ch
- June 14-16, 2018, Phenomenological Approaches to Physics Historical and Philosophical Perspectives, University of Graz, Austria
Details at: <http://phenphysics.weebly.com/>
- June 18-20, 2018, Society of European Philosophy and Forum for European Philosophy Annual Conference, University of Essex, UK.
More information at: <https://societyforeuropeanphilosophy.com/2017/10/09/sep-fep-2018-call-for-papers/>
- June 29 – July 1, 2018, Annual Conference of the Society for Applied Philosophy. Utrecht, The Netherlands.
More information at: <http://www.appliedphil.org/details/event/10570598/Society-for-Applied-Philosophy-Annual-Conference-2018.html>
- June 30 – July 2, 2018, 7th SPSP Congress, Ghent University, Belgium
Details, Erik Weber, Erik.Weber@UGent.be
- July 3-6, 2018, 9th Conference of the International Society for the Study of Argumentation (ISSA), University of Amsterdam, The Netherlands
Details at: <https://www.conftool.net/issa2018/>
- July 5-7, 2018, The Evolution of Knowledge. &HPS7: Integrated History and Philosophy of Science, 7th conference. Leibniz Universität Hannover, Hannover, Germany
Inquiries to: Uljana Feest feest@philos.uni-hannover.de
Or, Ohad Parnes oparnes@mpiwg-berlin.mpg.de
- July 6-8, 2018, 92nd Joint Session of the Aristotelian Society and the Mind Association. University of Oxford, UK.
More information at: <https://www.philosophy.ox.ac.uk/event/2018-joint-session>
- July 9-12, 2018, HOPOS 2018 International Conference, Groningen, the Netherlands
Details at: <http://www.hopos2018.nl/>
- July 16-18, 2018, Annual Conference of the International Society for the Philosophy of Chemistry (ISPC). Department of Philosophy, University of Bristol, UK
Inquiries to gb0859@bristol.ac.uk More information at:
<https://sites.google.com/site/socphilchem/>
- August 29 – September 1, 2018, Society for Social Studies of Science – Transnational STS,

Sydney, Australia

http://www.4sonline.org/item/4s_sydney_18_announced

September 14-17, 2018, European Society for the History of Science Biennial Conference 2018: 'Unity and Disunity', University College London's Institute of Education, London, UK

Submissions due December 6, 2017

More information at: <http://eshs2018.uk/index.php/call-for-papers/>

October 2-6, 2018, XIII International Ontology Congress: Physics and Ontology. San Sebastian (University of the Basque Country) and Barcelona Autonomous University of Barcelona, Spain.

Details at: <http://www.ontologia.info/>

November 1-4, 2018, 26th Biannual Meeting of Philosophy of Science Association, Seattle, Washington.

More information at: <http://philsci.org/psa-biennial-meeting/psa2018-contact-information.html>