

HPS&ST Note

July 2018

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 pieces, 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/>

Science & Education: Editor Search

The International History, Philosophy and Science Teaching Group (IHPST) is seeking an Editor for *Science & Education*. Internationally respected scholars, with prior editorial and/or managerial experience and some expertise in science education and history, philosophy, or sociology of science are encouraged to apply. The position of Editor will begin a five-year term on January 1, 2020, preceded by one year of transition starting early January 2019. The selected editor will receive a contract with Springer that includes an annual editorial budget, and will negotiate the terms of this contract directly with the publisher. The complete proposal is due August 31, 2018.

The proposal should be submitted as a single Adobe document (*pdf*) file to editor-search@ihpst.net. Interested persons/teams are encouraged to visit ihpst.net for more details and to discuss the nature of this position informally with the current Editor Kostas Kampourakis (Kostas.Kampourakis@unige.ch) and/or Science & Education's Advisory Board Chair, Zoubeida Dagher (editor-search@ihpst.net).

2018 British Society for History of Science, Pickstone Prize Shortlist

The [British Society for the History of Science](#) (BSHS) Pickstone Prize celebrates the best scholarly work in the history of science and medicine in English. The BSHS is delighted to announce the 2018 shortlist.

The five shortlisted books represent exciting new advances in understanding and interpreting science's past. They are:

1. Paola Bertucci, *Artisanal Enlightenment: Science and the Mechanical Arts in Old Regime France* (New Haven, CT: Yale University Press, 2017)
Reconsiders the role of learned artisans, placing them at the heart of the French Enlightenment.
2. Surekha Davies, *Renaissance Ethnography and the Invention of Humans: New Worlds, Maps and Monsters* (Cambridge: Cambridge University Press, 2016)
Reveals how cannibalism was cooked up by Europeans as a way of defining the 'strangeness' of people in Brazil.
3. Rohan Deb Roy, *Malarial Subjects: Empire, Medicine and Nonhumans in British India, 1820-1909* (Cambridge: Cambridge University Press, 2017)
Ambitiously interweaves the histories of malaria and cinchona (used for quinine) to show how knowledge and practices became 'global'.
4. Jutta Schickore, *About Method: Experimenters, Snake Venom, and the History of Writing Scientifically* (Chicago: University of Chicago Press, 2017)
Uncovers the weird and wonderful experiments conducted to understand the power and action of snake venom.
5. Michael Wintroub, *The Voyage of Thought: Navigating Knowledge across the Sixteenth-Century World* (Cambridge: Cambridge University Press, 2017)
Takes its readers on a French mission to carve out an empire in the Indies and conducts them through the oceans of 16th-century thought.

The BSHS Pickstone Prize is awarded every two years, and reflects the Society's mission to promote excellence in the history of science, technology and medicine. The prize was established to honour the late historian of science Professor John Pickstone (1944-2014).

The judging panel for the 2018 Pickstone Prize was chaired by Dr Tim Boon (Head of Research and Public History, Science Museum). It included Dr Patricia Fara (University of Cambridge), Professor Charlotte Sleigh (University of Kent and Editor of the *British Journal for the History of Science*) and Dr Elizabeth Haines (University of Bristol).

Tim Boon said: 'The panel found shortlisting very painful: to select a longlist of only 11 from the 32 wide-ranging recommendations covering many periods, parts of the world and subjects, already provoked much debate. Our shortlist of five books retains great diversity, readability and seriousness. We can be confident that scholarly writing in the history of science – which the Pickstone Prize rewards – is in very good health.'

The winner of the Pickstone Prize will be announced in September 2018. The longlist can be read [here](#).

International Conference: 'Emergence of Modern Science in Colonial India', 14-15 March, 2018-05-23 at INSA, New Delhi

The 3-day International Conference on 'Emergence of Modern Science in Colonial India' was organised by the Indian National Science Academy (INSA) between 14-16th March, 2018 at INSA, New Delhi. The Convener was Prof. Arnab Raichoudhuri of Physics Department of IISc., Bengaluru and whole activity was co-ordinated by an Organising Committee of Prof. Deepak Kumar, JNU; Prof. Suprakash Roy, Editor-in-Chief, Science and Culture; Dr. Rajinder Singh of Oldenburg University, Germany with Prof. Raichoudhuri as the Convener. He was ably assisted from the INSA side by Mr. Madhvendra Narayan, Associate Editor & Member Secretary of IJHS editorial board. The conference venue was the INSA building at Delhi with

good ambience and logistics which are taken care of very professionally by Mr. Madhvendra & Prof. Roychoudhuri.



The Inauguration of the conference was done by Dr. A.K. Bag, the Editor of IJHS in a brief address summarising the objectives and importance of the seminar.

In Session I, Prof. Deepak Kumar (Ex-JNU) delivered on the role of the colonisers and the growth of Indian science. This was the keynote address and set the tune for the conference. It was followed by speeches from Ms. Gulfishan Khan (AMU) on the effect of Persian and Urdu on Indian science. Then Ms. Abhidha Dumatkar spoke on Prof. B.P. Modak (1847-1906) who wrote books in vernacular, an exception for that period.

Session II, chaired by Prof. R. Anderson had Prof. Louradusamy (IIT, Madras) speaking on Dr. M.L. Sircar and Sir Asutosh Mukherjee as institution builders. John Mathew (IISER, Pune) spoke on Sir Ronald Ross whose major work was done in Calcutta. Rahul Bhaumik (Ph.D. Scholar, JU) and Apalak Das (Research Scholar, JU – Asiatic Society) spoke about studies on snake venoms and school of Tropical Medicine respectively.

Session III was chaired by Prof. Arun Murthy (IISER, Mohali). Eminent historian Prof. Dhruv Raina (JNU) spoke on confluence of European Mathematics on Indian Mathematics. Other speeches were by Maidul Rahaman (Assam University), Prof. Suvobrata Sarkar (Burdwan University) and Sri K.V. Sriharsha who spoke respectively on history of veterinary science, electrification of Calcutta and Importance and History of Ayurveda Studies in India during colonial period. Prof. Irfan Habib (Ex-NISTADS) spoke on clash of cultures and its effect on History of Science. Tea was followed by IVth session where Prof. Sekhar Pathak (Ex-Professor of Kumaun University) spoke on Nain Singh Rawat, Dr. G.S. Sodhi (Khalsa College, New Delhi) delivered a very interesting lecture on how in Kolkata use of fingerprinting developed in colonial period.

The Session V chaired by A. Ramanath had the lecture by Prof. Subrata Dasgupta (University of Louisiana, USA) on creative and cognitive aspects of Sir J.C. Bose's discoveries. Next, Prof. Shyamal Chakrabarti (CU) spoke on Sir Prafulla Chandra Ray: 'A Visionary entrepreneur of British India'. Dr. Rajinder Singh's absence (a last minute decision because of his sudden indisposition and who was missed by all) was announced and his 'Raman Paper' was presented by Prof. Arnab Raichoudhuri.

The VIth session, chaired by Prof. John Mathew had presentations on 'The early History of IISc' by T.A. Abhinandan (IISc), on Curzon & Technical Education India jointly by Ms. Sunayana Maiti and Ms. Sujata Banerjee (Asiatic Society), on N.R. Dhar by Ms. Madhumita Mazumdar (Gujrat). Then Prof. Gautam Gangopadhyay and Prof. Anirban Kundu (CU) presented two papers on 'History of Physics Department of Calcutta University'. Much archival material was presented during these two lectures.

Post lunch session VII started with Prof. D. Balasubraminian (Chair or National Commission on History of Science) in the chair. In this session Prof. Atri Mukhopadhyay (SINP) spoke about Meghnad Saha's scientific achievements, Prof. DCV Mallick (Institute of Astrophysics, Bengaluru) spoke on Sir C.V. Raman's collaborator, Dr. K.S. Krishnan and another of Dr. Rajinder Singh's paper on 'D.M. Bose, S.K. Mitra and B.B. Ray' was presented by Prof. Arnab Raichoudhuri.

Session VIII was chaired by Prof. Deepak Kumar. Dr. Biman Nath (Raman Research Institute) presented on Indian Astronomy research during colonial period, Ms. Sneha Nath (Pune) presented on 'Role of Indian Science Congress Association'.

On this day Prof. Malabika Sarkar and Prof. Sabyasachi Bhattacharya (both from Ashoka University) joined and participated in the discussion on starting a course on History of Science and its modalities. The dinner on 2nd day was in honour of Prof. Robert Anderson and Prof. Deepak Kumar – both of whom gave short speeches on their journey along the path of knowledge called 'History of Science'.

The last and third day started with started with lively presentations from Prof. Sabyasachi Bhattacharya (formerly of TIFR) and Prof. Malabika Sarkar (Ashoka University) showing the strong need for a combined science and humanities blend in education with pictorial depiction of Milton-Galileo connection. This was important for History of Science Studies as planned in India.

Session IX started with Prof. Abha Sur (MIT) in the chair. Presentations were by Prof. Robert Anderson (Canada) on Bhatnagar's role in power structure of Indian Science in pre and post colonial phase. Prof. Arnab Raichoudhuri (IISc) presented how FRS award played a role in development of Indian Science. A lecture of Prasanta Chandra Mahalanobis and Indian Statistical Institute was given by Prof. Samir Kumar Saha (formerly JU), Prof. Balasubraminian (INSA) gave his talk on Organic Chemists in India.

Session X was chaired by Prof. Irfan Habib and presentations were by Prof. Ashok Sahni on Birbal Sahani's work in Punjab during the colonial period. Aparajith Ramnath (Amrut School of Management) presented on Technology in Colonial India, and followed by Women Scientists in India by Prof. Abha Sur (MIT) and how they were discriminated against.

Post lunch in session XI, it was Anup Kumar Dhar on 'Psychoanalysis, Freud & G.S. Bose', Indranil Chatterjee on 'History of Forest Conservation' and Ms. Baisakhi Bandyopadhyay on 'Emergence of Environmental Science in India'. This was the concluding session followed by a round table discussion on formation of a Society

for History of Science in India.

The International Conference brought together experts from all over world to take History of Science Studies in India forward. Follow up actions by INSA and the scholars will make its realization possible.

Indian National Science Academy (INSA) evolved from National Institute of Science (NIS) in 1935, originally starting from Calcutta and then shifted to New Delhi in 1970s. It is one of the most prominent Science Academics in India, the other two being in Bengaluru and Allahabad respectively. The concept of Science Academy was mooted by Prof. M.N. Saha in 1930s in the Indian Science Congress first and since its formation INSA gloriously followed the ideals conceived by this visionary scientist.

The History of Science Activities of INSA started in 1960s at the Asiatic Society premises in Kolkata. Presently, the activities are steered by 'Indian National Commission for History of Science'. Under this, there is a 'Research Council', which has been funding Research Projects on History of Science & Technology (including medicine), publishing the reports and has also undertaken publication of books. The journal, *Indian Journal of History of Science* is in its 45th year of publication under the able editorship of Dr. A.K. Bag and has been one of the most valued repository of the History of Indian Science research, done not only in India but worldwide. Since inception, the IJHS encouraged publication by young researchers also.

This report has been prepared by Prof. Samir Kumar Saha (former Professor, Jadavpur University and presently, Dean, MCKVIE), E-mail: sahasamir7@gmail.com

European Society for the History of Science Biennial Conference and British Society for the History of Science Annual Meeting, University College, London, 14-17 September 2018

The first draft of the programme for ESHS2018 is now on the conference website, available [here](#).

The programme is downloadable [here](#).

There is one session on 'History of Science and Education': Haira Emanuela Gandolfi, Xiang Mayrargue Li, and Louis Arnaud Rosenblatt

The Cavendish Laboratory

This archive contains the first installment of historic photographs of people, equipment and events, mostly from the early history of the Cavendish Laboratory up to about 1970. There are many classic photographs of equipment used in the pioneering discoveries made by members of the Laboratory.

The preservation of the most important of these in an accessible digital Photographic Archive has been a priority as we begin a new phase in the history of the Laboratory with the rebuilding of the whole Laboratory to be completed in 2022. We wish this material to be made widely available to all interested parties.

You can find the website [here](#).

4th Latin American Conference of the International History, Philosophy and Science Teaching Group (IHPST-LA), September 3 to 5, 2018, Federal University of ABC, UFABC, Santo André, Brazil

After 8 years from the 1st Latin American Conference, in Maresias (SP), and 3 years from the 13th Biennial Conference of the IHPST, in Rio de Janeiro (RJ), Brazil will host again a group meeting. In three days of intense discussion, we seek to promote a wide debate among historians, educators, teachers and others on the relation between history, philosophy, sociology and science teaching.

There will be three kinds of submission of proposal: oral communication, poster and thematic symposia. Proposals may be submitted in Portuguese, Spanish or English.

Submission of proposals (all categories): from February 19 to March 30

Early registration deadline: June 3

If you have any doubts and suggestions, send an e-mail to ihpstla2018@gmail.com

Complete version of CFP: <http://www.brenoam.com/ihpstla-2018-en>.

International Conference on History of Science and Science Education (ICHSE), 2018 August, 29-31, 2018, State University of Paraiba, Brazil

This is the XI biennial conference gathering together researchers in history and philosophy of science and science education. The conference will be hosted by the Research Group on History of Science and Science Teaching (GHCEN) of State University of Paraiba.

In its 10 years of existence, GHCEN has contributed to Brazilian research on the historical and philosophical approach to science teaching. Composed by under-

graduate and graduate students and high school teachers, the Group has researched and implemented teaching strategies to spread history and philosophy of science in science education. Its focus has been in the inquiry-based learning supported by didactical materials with the historical and philosophical approach. This includes historical research based on the modern historiography of science, lesson plans with a historical and inquiry-based approach, replication of historical experiments and instruments, multimedia materials (videos and cartoons) and theatre plays.

According to the connection with GHCEN research, the theme of this XI Conference will be the similarities between the humanistic goals and the science teaching.

In this Conference, we expect the presentations will indicate how different humanistic didactical approaches can contribute:

- To build a new perspective on science and its meaning to society;
- To improve science teaching from teacher's perspective;
- To motivate students to learn science and about science.

Details available [here](#).

PhilPeople Directory

PhilPeople, a directory and social network for philosophers developed by the PhilPapers Foundation with support from the American Philosophical Association.

PhilPeople's main features include:

1. Personalized profiles for every philosopher, including customizable publication lists and graphical elements.
2. A comprehensive directory of departments offering an array of department-wide statistics.

3. A powerful search engine for searching PhilPeople's database of philosophers based on topics, location, demographics, and other criteria.
4. The news feed, a social networking system that allows you to follow the publications, appointments, updates, paper recommendations, blog posts, and other activities of philosophers.
5. The radar, a tool to discover people traveling near you, and for announcing your own travels.
6. A discussion sessions feature allowing you to share a paper for discussion among as many or as few people as you want, with extensive on-screen commenting and group discussion features.

PhilPeople replaces the social and profile features of PhilPapers.

PhilPeople is an online directory of philosophers, a social network for philosophers, and a tool for keeping up with everything in the philosophical profession.

PhilPeople is of much help to the science education community since it aggregates a vast number of articles and other scholarly publications in one place. With the string "science education" 1000+ entries come up.

More information can be found [here](#).

Scholars can log on to their account and update it, or join PhilPeople, at

<https://philpeople.org/wizard>

Members are encouraged to complete the demographics section of the wizard. This information will be usable by philosophers searching for members of demographic groups, and will also help gather better information on the demographics of the profession worldwide. You may choose between different levels of privacy in how various aspects of your demographic information are used: e.g. included in your profile, used in determining search results, or used only in overall demographic statistics.

Opinion Page

History of Science in Schools

Cormac Ó Raifeartaigh, Waterford Institute of Technology, Ireland

The importance of history as a core subject in school was recently articulated by Prof [Diarmaid Ferriter](#) in *The Irish Times*. Similar sentiments have been expressed by President [Michael D Higgins](#), including the statement “...to be without such knowledge is to be permanently burdened with a lack of perspective, empathy and wisdom”.



In my view, a rudimentary knowledge of the history of science is also of great importance to any citizen. It is extraordinary to think that, despite the all-pervading influence of science and technology in modern life, few students leave school (or college) with any knowledge of the history of the development of modern science.

What did the Greeks and Romans think of the universe at large? What caused these ideas to be questioned in the Renaissance? What was the nature of the dispute between [Galileo](#) and the Church? Who was [Robert Boyle](#) and why were his experiments so important in the development of the modern scientific method? Many scientists would argue that such knowledge is of fundamental value to any young person, yet such topics are rarely discussed in school. Even at college level, only a tiny minority of students graduate with a knowledge of the great revolutions of science and their impact on society – from Darwin’s theory of evolution to Einstein’s theories of relativity.

Does it matter? I think it does, because the history of science forms an important component of the advance of human knowledge. To pick a topical example, I would suggest a rudimentary knowledge of how man-made global warming was

discovered would help increase awareness of the issue. It is hard to remain sceptical when one learns of the first painstaking observations of a rise in the concentration of atmospheric greenhouse gases, and the correlation of these observations with rising surface temperatures and increased ice melt over the years. Incidentally, few climate sceptics realise that many of the alternate explanations raised by them were carefully considered by climate scientists in the past, but have long been ruled out by observation.

Historians trained in the humanities constructed complicated sociological reasons for the acceptance of a scientific theory, paying little attention to practical issues. Yet the history of science remains an obscure field of study, even at third level. Remarkably few colleges worldwide offer undergraduate programmes in the history of science, and senior university positions in the topic are rare. One reason may be a certain tension within the discipline itself. Until the 1960s, almost all work on the history of science was produced by senior scientists with an interest in the historical development of their field. From the 1960s onwards, professional historians began to take an interest in the subject, and they noted that scientists tended to produce a rather idealized narrative of scientific discovery that took no account of societal influences. Thus, a new “social context” approach to the history of science emerged, inspired by scholars such as [Thomas Kuhn](#), that paid attention to sociological factors such as the status of researchers, the status of their institution and the role of governments and funding bodies in scientific enquiry.

However, professional scientists soon complained that the “social historians” were engaged in revisionism. Historians trained in the humanities rather than the sciences often constructed complicated sociological reasons for the acceptance of a given scientific theory, without paying attention to practical issues such as supporting evidence. This “black boxing” of the technical aspects of science in the study of its development was anathema to most scientists, as it effectively ignored the rigorous process of scientific enquiry.

Today, there are many attempts to encourage scientists and historians to work together to produce narratives of scientific discovery that include both technical and sociological considerations. For example, the International Conference on the His-

tory of Physics, of which I am a committee member, hosts a number of international conferences on the history of physics for both historians and scientists.

Closer to home, the annual [Robert Boyle Summer School](#) offers a number of public talks by scientists and historians on the science of Robert Boyle and his contemporaries in the [Royal Society](#). This year, the summer school takes place on June 21st to 24th at Boyle's ancestral home in [Lismore](#), Co [Waterford](#), and the theme of the meeting is "What do we know and how do we know it?"

[From: *The Irish Times* May 31, 2018]

Invitation to Submit Opinion Piece

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/>

Hugh Lacey, Philosophy Department, Swarthmore College, [Appropriate Roles for Ethics and Social Values in Scientific Activity](#) (June 2018)

Gerald Holton, Physics Department, Harvard University, [Tracing Tom Kuhn's Evolution: A Personal Perspective](#) (April/May 2018)

Monica H. Green, History Department, Arizona State University, [On Learning How to Teach the Black Death](#) (March 2018).

Stephen Pinker, Psychology Department, Harvard University, [The Intellectual War on Science](#) (February 2018).

Michael Ruse, Philosophy Department, Florida State University, [Does Life Have Meaning? Or is it Self-Deception at Best and Terrifyingly Absurd at Worst?](#) (January 2018).

Mario Bunge, Philosophy Department, McGill University, [In Defence of Scientism](#) (December 2017).

Susan Haack, Philosophy and Law Departments, University of Miami, [The Future of Philosophy, the Seduction of Scientism](#) (November 2017).

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](#) (May 2017).

Nicholas Maxwell, University College London, [The Crisis of Our Times and What to do About It](#) (April 2017).

Eric Scerri, UCLA, [Bringing Science Down to Earth](#) (March 2017).

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?](#)

PhD Theses in HPS&ST Domain

This will be a new section of the monthly HPS&ST Note. The Note is the ideal medium for publicizing and making known submitted and awarded doctoral theses in the HPS&ST domain.

The following details should be submitted to the editor at m.matthews@unsw.edu.au:

- Candidate's Name and email
- Institution
- Supervisor
- Thesis title
- Abstract of 100-300 words
- Web link when theses are required to be submitted for Open search on web.

Recent HPS&ST Research Articles

Transversal: International Journal for the Historiography of Science (N. 4, 2018)
Dossier Georges Canguilhem, Mauro L. Condé, Marlon Salomon (Eds.). Link [here](#).

- Bangu, S. (2018) Indispensability, causation and explanation. *THEORIA. An International Journal for Theory, History and Foundations of Science*, 33(2), 219-232. doi:[10.1387/theoria.17619](https://doi.org/10.1387/theoria.17619)
- Biddle, J. B. (2018) “Antiscience Zealotry”? Values, Epistemic Risk, and the GMO Debate. *Philosophy of Science*, 85(3), 360-379. doi:[10.1086/697749](https://doi.org/10.1086/697749)
- Currie, A. (2018) Big dragons on small islands: generality and particularity in science. Review of Angela Potochnik’s idealization and the aims of science. *Biology & Philosophy*, 1-12. doi:[10.1007/s10539-018-9631-5](https://doi.org/10.1007/s10539-018-9631-5) online first
- Endersby, J. (2018) A visit to Biotopia: genre, genetics and gardening in the early twentieth century. *The British Journal for the History of Science*, 1-33. doi:[10.1017/S000708741800047X](https://doi.org/10.1017/S000708741800047X) online first
- Francis, K. B., Haines, A., & Briazu, R. A. (2017). Thinkering through experiments: Nurturing transdisciplinary approaches to the design of testing tools. *AVANT. Trends in Interdisciplinary Studies*, 8, 107-115. doi:[10.26913/80s02017.0111.0011](https://doi.org/10.26913/80s02017.0111.0011) and [here](#).
- Fuselier, L., Eason, P. K., Jackson, J. K., & Spaulding, S. (2018) Images of Objective Knowledge Construction in Sexual Selection Chapters of Evolution Textbooks. *Science & Education*, 1-21. doi:[10.1007/s11191-018-9978-7](https://doi.org/10.1007/s11191-018-9978-7) online first
- Halpern, P. (2018) Celebrity Physicist: How the Press Sensationalized Einstein’s Search for a Unified Field Theory. *Physics in Perspective* 1-18. doi:[10.1007/s00016-018-0224-0](https://doi.org/10.1007/s00016-018-0224-0)
- van Helvoort, T. & Sankaran, N. (2018) How Seeing Became Knowing: The Role of the Electron Microscope in Shaping the Modern Definition of Viruses. *Journal of the History of Biology*, 1-36. doi:[10.1007/s10739-018-9530-2](https://doi.org/10.1007/s10739-018-9530-2) online first
- Kragh, H. (2016) Georges Lemaître, Pioneer of Modern Theoretical Cosmology. *Foundations of Physics*, 1-16. doi:[10.1007/s10701-018-0186-8](https://doi.org/10.1007/s10701-018-0186-8) online first

- Mauro, M. D., Esposito, S., & Naddeo, A. (2018) When Physics Meets Biology: A Less Known Feynman. *Transversal: International Journal for the Historiography of Science*, 4, 163-173. doi:[10.24117/2526-2270.2018.i4.14](https://doi.org/10.24117/2526-2270.2018.i4.14)
- Mormann, T. (2018) Scientific worldviews as promises of science and problems of philosophy of science. *Centaurus*, 59(3),189-203 doi:[10.1111/1600-0498.12159](https://doi.org/10.1111/1600-0498.12159)
- Odden, T.O.B., & Russ, R. S. (2018) Defining sensemaking: Bringing clarity to a fragmented theoretical construct. *Science Education*, 1-19. doi:[10.1002/sci.21452](https://doi.org/10.1002/sci.21452) online first
- Partridge, D. (2018). Darwin's two theories, 1844 and 1859. *Journal of the History of Biology*, 1-30. doi:[10.1007/s10739-018-9509-z](https://doi.org/10.1007/s10739-018-9509-z) online first
- Quílez, J. (2018) A historical/epistemological account of the foundation of the key ideas supporting chemical equilibrium theory. *Foundations of Chemistry*, 1-32. doi:[10.1007/s10698-018-9320-0](https://doi.org/10.1007/s10698-018-9320-0)
- Schummer, J. (2018). Why Chemists Need Philosophy, History, and Ethics. *Substantia*, 2(1), 5-6. doi:[10.13128/Substantia-36](https://doi.org/10.13128/Substantia-36)
- Upahi, J. E., Ramnarain, U., & Ishola, I. S. (2018) The Nature of Science as Represented in Chemistry Textbooks Used in Nigeria. *Res Sci Educ*, 1-19. doi:[10.1007/s11165-018-9734-7](https://doi.org/10.1007/s11165-018-9734-7)
- Virmajoki, V. (2018) Could Science be Interestingly Different? *Journal of the Philosophy of History*, 1-22. doi:[10.1163/18722636-12341388](https://doi.org/10.1163/18722636-12341388) online first
- Zion, M., Schwartz, R.S., Rimerman-Shmueli, E. *et al.* (2018) Supporting Teachers' Understanding of Nature of Science and Inquiry Through Personal Experience and Perception of Inquiry as a Dynamic Process. *Res Sci Educ*, 1-24. doi:[10.1007/s11165-018-9732-9](https://doi.org/10.1007/s11165-018-9732-9) online first
- Zuidervaart, H., & Cocquyt, T. (2018) The Early Development of the Achromatic Telescope Revisited. *Nuncius*, 33(2), 265 – 344. doi:[10.1163/18253911-03302004](https://doi.org/10.1163/18253911-03302004)

Recent HPS&ST Related Books

Assis, André K. T. (2018) *The Experimental and Historical Foundations of Electricity*. (Volume 2), Apeiron: Montreal. ISBN: 978-1-987980-11-0

“This work deals with the most fundamental aspects of physics. The book describes the main experiments and discoveries in the history of electricity. It deals with attractions and repulsions, positive and negative charges, conductors and insulators, electrification by friction/contact/induction, the triboelectric series, electrification of adhesive tapes, distribution of charges in conductors, electric equilibrium and the instrument which indicates potential difference, electric shielding, the power of points, sparks and electric discharges in air, electrets and the temporal preservation of the electrification of bodies, the mysterious non-electrostatic forces, etc. This work explains how to build several instruments: versorium, electric pendulum, electroscope, charge collector, circuit tester, electrophorus, the Leyden jar and capacitors, etc. All experiments are clearly described and performed with simple, inexpensive materials. These experiments lead to clear concepts, definitions and laws describing these phenomena. Historical aspects are presented, together with relevant quotations from the main scientists. A large bibliography is included at the end of the work” (From the author)

Book freely available [here](#) and [here](#) (Portuguese version).

Bodenmann, Siegfried, & Rey Anne-Lise (Eds.) (2018) *What Does it Mean to be an Empiricist? Empiricisms in Eighteenth Century Sciences*. (BSPS, volume 331) Dordrecht: Springer. ISBN: 978-3-319-69858-8

“This book begins with an observation: At the time when empiricism arose and slowly established itself, the word itself had not yet been

coined. Hence the central question of this volume: What does it mean to conduct empirical science in early modern Europe? How can we catch the elusive figure of the empiricist?

“Our answer focuses on the practices established by representative scholars. This approach allows us to demonstrate two things. First, that empiricism is not a monolith but exists in a plurality of forms. Today’s understanding of the empirical sciences was gradually shaped by the exchanges among scholars combining different traditions, world views and experimental settings. Second, the long proclaimed antagonism between empiricism and rationalism is not the whole story. Our case studies show that a very fruitful exchange between both systems of thought occurred. It is a story of integration, appropriation and transformation more than one of mere opposition.

“We asked twelve authors to explore these fascinating new facets of empiricisms. The plurality of their voices mirrors the multiple faces of the concept itself. Every contribution can be understood as a piece of a much larger puzzle. Together, they help us better understand the emergence of empiricism and the inventiveness of the scientific enterprise.” (From the Publisher)

More information available [here](#).

Csiszar, Alex (2018) *The Scientific Journal: Authorship and the Politics of Knowledge in the Nineteenth Century*. Chicago, IL: University of Chicago Press. ISBN: 9780226553238

“A scientific journal can make for dry reading; *The Scientific Journal*, on the other hand, does not. Csiszar provides a fascinating account about how this particular genre came to have its current form and, most importantly, its overwhelming status. There are thought-provoking challenges to our assumptions about scientific communication on just about every page.” – Michael D. Gordin, Princeton University

”This clever and absorbing history charts the coming into being and imminent passing away of one of the most important forms of scientific activity - journal publication. Stocked with fascinating tales of scientific authors’ deeds and sufferings, and of publishers’ market savvy and ingenious trickery, Csiszar shows that the allegedly novel and dramatic alliance between scientific writing and commercial interest is nothing new, and in fact dominated the original developments of scientific literature and its vagaries in earlier centuries. The book explains how the notion of a quick and cheap technological fix for any apparent trouble of public knowledge first gained ground and why its mythology so evidently survives. The book will be indispensable for anyone interested in the roots of trust in scientific facts and their authors, and the central role played by print media in the crisis of intellectual authority.” – Simon Schaffer, University of Cambridge

More information available [here](#).

Deniz, Hasan, Borgerding, Lisa A. (Eds.) (2018) *Evolution Education Around the Globe*. Dordrecht: Springer. ISBN 978-3-319-90939-4

“This edited book provides a global view on evolution education. It describes the state of evolution education in different countries that are representative of geographical regions around the globe such as Eastern Europe, Western Europe, North Africa, South Africa, North America, South America, Middle East, Far East, South East Asia, Australia, and New Zealand. Studies in evolution education literature can be divided into three main categories: (a) understanding the interrelationships among cognitive, affective, epistemological, and religious factors that are related to peoples’ views about evolution, (b) designing, implementing, evaluating evolution education curriculum that reflects contemporary evolution understanding, and (c) reducing antievolutionary attitudes. This volume systematically summarizes

the evolution education literature across these three categories for each country or geographical region. The individual chapters thus include common elements that facilitate a cross-cultural meta-analysis. Written for a primarily academic audience, this book provides a much-needed common background for future evolution education research across the globe.” (From the Publisher)

More information available [here](#).

Linden, David J. (Ed.) (2018) *Think Tank: Forty Neuroscientists Explore the Biological Roots of Human Experience*. New Haven, CT: Yale University Press. ISBN: 9780300225549

“Neuroscientist David J. Linden approached leading brain researchers and asked each the same question: ‘What idea about brain function would you most like to explain to the world?’ Their responses make up this one-of-a-kind collection of popular science essays that seeks to expand our knowledge of the human mind and its possibilities. The contributors, whose areas of expertise include human behavior, molecular genetics, evolutionary biology, and comparative anatomy, address a host of fascinating topics ranging from personality to perception, to learning, to beauty, to love and sex. The manner in which individual experiences can dramatically change our brains’ makeup is explored.

“Professor Linden and his contributors open a new window onto the landscape of the human mind and into the cutting-edge world of neuroscience with a fascinating and enlightening compilation that science enthusiasts and professionals alike will find accessible and enjoyable.” (From the Publisher)

More information available [here](#).

Stuewer, Roger H. (2018) *The Age of Innocence: Nuclear Physics between the First and Second World Wars*. Oxford: OUP ISBN: 9780198827870

“The two decades between the first and second world wars saw the emergence of nuclear physics as the dominant field of experimental and theoretical physics, owing to the work of an international cast of gifted physicists. Prominent among them were Ernest Rutherford, George Gamow, the husband and wife team of Frédéric and Irène Joliot-Curie, John Cockcroft and Ernest Walton, Gregory Breit and Eugene Wigner, Lise Meitner and Otto Robert Frisch, the brash Ernest Lawrence, the prodigious Enrico Fermi, and the incomparable Niels Bohr.

“Their experimental and theoretical work arose from a quest to understand nuclear phenomena; it was not motivated by a desire to find a practical application for nuclear energy. In this sense, these physicists lived in an ‘Age of Innocence.’ They did not, however, live in isolation. Their research reflected their idiosyncratic personalities; it was shaped by the physical and intellectual environments of the countries and institutions in which they worked. It was also buffeted by the political upheavals after the Great War: the punitive postwar treaties, the runaway inflation in Germany and Austria, the Great Depression, and the intellectual migration from Germany and later from Austria and Italy.

“Their pioneering experimental and theoretical achievements in the interwar period therefore are set within their personal, institutional, and political contexts. Both domains and their mutual influences are conveyed by quotations from autobiographies, biographies, recollections, interviews, correspondence, and other writings of physicists and historians.”

Wise, M. Norton (2018) *Aesthetics, Industry, and Science: Hermann Von Helmholtz and the Berlin Physical Society*. Chicago, IL: University of Chicago Press. ISBN:

9780226531359

“On January 5, 1845, the Prussian cultural minister received a request by a group of six young men to form a new Physical Society in Berlin. In fields from thermodynamics, mechanics, and electromagnetism to animal electricity, ophthalmology, and psychophysics, members of this small but growing group—which soon included Emil Du Bois-Reymond, Ernst Brücke, Werner Siemens, and Hermann von Helmholtz—established leading positions in what only thirty years later had become a new landscape of natural science. How was this possible? How could a bunch of twenty-somethings succeed in seizing the future?

“In *Aesthetics, Industry, and Science* M. Norton Wise answers these questions not from a technical perspective of theories and practices but with a broader cultural view of what was happening in Berlin at the time. He emphasizes in particular how rapid industrial development, military modernization, and the neoclassical aesthetics of contemporary art informed the ways in which these young men thought. Wise argues that aesthetic sensibility and material aspiration in this period were intimately linked, and he uses these two themes for a final reappraisal of Helmholtz’s early work. Anyone interested in modern German cultural history, or the history of nineteenth-century German science, will be drawn to this landmark book.” (From the Publisher)

More information available [here](#).

Authors of HPS&ST-related papers and books are invited to bring them to attention of the Note’s assistant editors, Paulo Maurício at paulo.asterix@gmail.com or Nathan Oseroff at nathanoseroff@gmail.com for inclusion in these sections.

Coming HPS&ST Related Conferences

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/>

July 17-19, 2018, Eight International Conference on Language, Culture and Mind. Venue: Denison University in Granville, Ohio, USA

Details at: <https://conferences.denison.edu/lcm8/>

July 17-21, 2018, International Committee for the History of Technology, 45th symposium, Jean Monnet University, Saint-étienne, France.

Further information at: <http://www.icohtec.org/annual-meeting-2018.html>

July 19-27, 2018, 2018 Summer Institute; From Biological Practice to Scientific Metaphysics. Taipei, Taiwan

Details available [here](#)

July 23-27, 2018, The 2018 Conference on Artificial Life (ALIFE 2018), Tokyo, Japan.

Details at: <http://2018.alife.org/>

July 25-29, 2018, International Workshop-Conference on Teaching Philosophy (IWCTP), North Carolina A&T State University, USA.

Details available [here](#).

July 28 – August 1, 2018, American Association of Physics Teachers (AAPT), Annual Conference, Washington DC, USA.

Details at: programs@aapt.org

July 29 – August 2, 2018, 25th Biennial Conference in Chemical Education, University of Notre Dame, Notre Dame, IN, USA

Details at: <http://bcce2018.org/Default.html>

August 1-3, 2018, Varieties of Mathematical Abstraction, University of Vienna, Austria.

More information at: <https://structuralism.phl.univie.ac.at/events/>

August 5-11, 2018, 41st International Wittgenstein Symposium. Kirchberg am Wechsel, Austria.

Details at: http://www.alws.at/index.php/symposium/view/call_for_papers/

August 8-10, 2018, A Materialist Theory of the Mind: 50 Years On. University of Sydney, Australia.

More information available [here](#).

August 20-21, 2018, First International Conference on Philosophy and Meaning in Life, Sapporo, Japan

More information at: <http://caep-hu.sakura.ne.jp/en/event/>

August 22-24, 2018, Society for the Metaphysics of Science (4th Annual Conference), Milan, Italy.

Further information: Christina Conroy at c.conroy@moreheadstate.edu

August 29-31, 2018, XI International Conference on History of Science and Science Education (ICHSSE), State University of Paraiba, Campina Grande, Brazil.

Information available [here](#).

August 29 – September 1, 2018, Society for Social Studies of Science – Transnational STS, Sydney, Australia

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

September 3-4, 2018, First Irvine-Munich-PoliMi-Salzburg Conference in Philosophy and Foundations of Physics (IMPS 2018). Salzburg, Austria.

More information available [here](#).

September 3-4, 2018, “Kinds of Reasoning”: IV FINO Graduate Conference in Mind, Language and Science, Vercelli and Novara, Italy.

More information available [here](#).

September 3-5, 2018, 4th Latin American Conference of the International History, Philosophy and Science Teaching Group (IHPST-LA), Federal University of ABC, UFABC, Santo André, Brazil
Information at: <http://www.brenoam.com/ihpstla-2018-en>.

September 6-7, 2018, 3rd International Congress of the Portuguese Philosophical Society, Covilhã, Universidade da Beira Interior, Portugal
Details available [here](#).

September 10-12, 2018, The Insides of Nature: Causalities, Causal Processes and Conceptions of Nature. Faculdade de Filosofia e Ciências Sociais Universidade Católica Portuguesa, Braga, Portugal
More information at: <http://braga.ucp.pt/filosofiadanatureza/eng.html#>

September 12-14, 2018, Cognitive Structures: Linguistic, Philosophical and Psychological Perspectives (CoSt18), Duesseldorf, Germany.
More information available [here](#).

September 13-14, 2018, Uniting Two Perspectives on Mental Illness: Philosophy and Linguistics. University of Essex, UK.
More information available [here](#).

September 14-16, 2018, Colloquium Logicum 2018, University of Bayreuth, Germany.
More information available [here](#).

September 14-17, 2018, European Society for the History of Science Biennial Conference and British Society for History of Science annual conference, 'Unity and Disunity', University College London's Institute of Education, London, UK
More information at: <http://eshs2018.uk/index.php/call-for-papers/>
For further details please contact the Programme Co-ordinator, Frank James: fjames@ri.ac.uk.

September 17-19, 2018, Evolving Minds: Integrating Philosophy, Science and the Arts. Charles Darwin University, Australia

- Details available [here](#).
- September 17-20, 2018, Tenth international conference (GAP.10) of the German Society for Analytic Philosophy (GAP), Cologne, Germany
More information at: <https://gap10.de/en/>
- September 19-21, 2018, CiNaPS 2018: Causality in the Neuro- and Psychological Sciences. University of Antwerp, Belgium.
More information available [here](#).
- September 19-22, 2018, 19th European Association of Museums of the History of Medical Sciences biennial Congress, Barcelona, Spain.
More information available [here](#).
- September 26-28, 2018, Deuxième colloque de la SFHSH – Histoire des sciences humaines et sociales. Paris, France.
Details at: <https://sfhsh.hypotheses.org/1018>
- September 28-29, 2018, Practice-Based Approaches in Science, Mathematics, and Logic: Challenges and Prospects (PASML2018), Vrije Universiteit, Brussels, Belgium
Details available [here](#).
- September 28-29, 2018, Space and Time: An Interdisciplinary Approach, Institute of Philosophy, Vilnius University, Vilnius, Lithuania
Details available [here](#).
- 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/>
- October 15-17, 2018, Philosophy of Cancer Biology. Bordeaux, France.
More information available [here](#).
- October 17-21, 2018, 3rd International Conference on the History of Physics under

- the auspices of the European Physical Society, Donostia-San Sebastian (Spain)
Details at: <http://www.ehu.es/ehusfera/hopdss2018/>
- October 19-20, 2018, “The Ethics of Conduct in Debate” University of Tartu Graduate Conference 2018, Tartu, Estonia.
More information available [here](#).
- October 26-27, 2018, HSTM Network Ireland Annual Conference, The School of Natural and Built Environment, Queen’s University Belfast, Ireland
Details at: <https://hstmnetworkireland.org/>
- October 26-27, 2018, Central States Philosophical Association 2018 Meeting, University at Buffalo, Buffalo, NY.
More information available [here](#).
- October 28, November 1st, 2018, 18th International Conference on Systems Biology Humanities and Social Sciences, Lyon, France.
More information available [here](#).
- November 1-4, 2018, 26th Biannual Meeting of Philosophy of Science Association, Seattle, Washington.
More information available [here](#).
- November 8-10, 2018, Investigating the Mind: Pain, Emotion & Affective Disorders, Ruhr-University Bochum, Germany.
More information available [here](#).
- November 13-16, 2018, IX conference of the Spanish Society of Logic, Methodology and Philosophy of Science (SLMFCE), Madrid, Spain.
More information at: <http://www.solofici.org/congreso2018/>
- November 15-17, 2018, 7th Making of the Humanities conference, University of Amsterdam, The Netherlands.
More information available [here](#).
- November 16-17, 2018, Indiana Philosophical Association’s Fall 2018 meeting, In-

diana University, Bloomington, IN, USA.

Details at: <https://ipa.hanover.edu/>

November 23-28, 2018, East Asian Science Education Association (EASE) annual conference, National Dong Hwa University, Hualien Taiwan.

Details at: <http://new.theease.org/conference2018.php>

November 28-30, 2018, 29th Novembertagung on the History of Mathematics: “History of Mathematical Concepts and Conceptual History of Mathematics”, University of Seville, Spain.

Details available [here](#).

November 30 – December 1, 2018, CYBERSPACE 2018, Brno, Czech Republic

Details available [here](#).

December 5-7, 2018, First Annual Meeting of The Australasian Society for Philosophy and Psychology, Macquarie University, Sydney, Australia.

Details available [here](#).

January 17-18, 2019. Double-Helix History: DNA and the past Abstract deadline: 15 September

Details available [here](#).

February 25-27, 2019, Third International Conference of the German Society for Philosophy of Science (GWP.2019), Cologne, Germany.

More information available [here](#).

March 31 – April 3, 2019, NARST Annual Conference, Baltimore, USA

Details at: <https://www.narst.org/>

April 24-26, 2019, British Society for the History of Philosophy Annual Conference, King’s College London. Strand Campus, London, UK.

Details available [here](#).

May 24-27, 2019, American Symposium on the History of Logic: Validity throughout History, University of California, Los Angeles, US.

For further information: Graziana Ciola (grazianaciola@g.ucla.edu)

July 15-19, 2019, International History, Philosophy and Science Teaching Group,
Biennial Conference, Thessaloniki, Greece.

Details from conference chair, Fanny Seroglou, fannyseroglou@gmail.com

July 22-26, 2019, The 46th Annual Hume Society Conference, University of Nevada,
Reno, NV, USA.

Details available [here](#).

July 26-28, 2019, 4th International Periodic Table Conference: 'Mendeleev 150',
ITMO University, St Petersburg, Russia

Details available [here](#).

August 5-10, 2019, 16th Congress of Logic, Methodology and Philosophy of Sci-
ence and Technology (CLMPST), Prague, Czech Republic.

For updates and details see [here](#).