HPS&ST Note

June 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 philo-

sophy of science to theoretical, curricular and pedagogical issues in science teach-

ing, and/or interests in the promotion of innovative and more engaging and ef-

fective teaching of the history and philosophy of science. The note is sent on to

different international and national HPS lists and international and national sci-

ence 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 con-

nect to concerns of the HPS&ST community.

Contributions to the note (publications, conferences, opinion pieces, etc.) are wel-

come 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/

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Science & Education: Editor Search

The International History, Philosophy and Science Teaching Grouip (*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).

Philosophy of Science Association (PSA) Election Results

The Governing Board of the Philosophy of Science Association, has announced the results of the 2018 PSA Election.



John Dupré of the University of Exeter has been elected President of the PSA. Professor Dupré will serve a two-year term (from January 1, 2019 through December 31, 20120) as Vice-President and President-Elect of the PSA, after which he will serve a two-year term (January 1, 2021 through December 31, 2022) as President of the Association, delivering the PSA Presidential Address at PSA2022, followed by a two-year term as Past President of the PSA.





Hanne Andersen of the University of Copenhagen, Denmark, and Sean A. Valles of Michigan State University have been elected to the Governing Board of the PSA.

Each will serve a four-year term (1/1/2019-12/31/2022).

The PSA Governing Board, as of January 1, 2019, will be comprised of:

Hanne Andersen (University of Copenhagen, Denmark)

Alisa Bokulich (Boston University)

Hasok Chang (University of Cambridge)

Megan Delehanty (University of Calgary)

Peter Godfrey-Smith (CUNY Graduate Center and University of Sydney)

Edouard Machery (University of Pittsburgh)

Laura Ruetsche (University of Michigan)

Sean A. Valles (Michigan State University)

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 organising committee of ESHS 2018 invite proposals for individual papers to be presented at the conference. The organisers will aim to arrange submissions into coherent strands. In selecting papers for the conference, the organisers will give preference to those that address, in some way, the conference theme of 'Unity and Disunity'. This can be interpreted very broadly, to address, amongst other topics, unity and disunity within and across diverse sciences, nations, periods, and historiographies; unity and disunity as ideals and realities; and unity and disunity as characterizing relations between the sciences and politics, technology, economics, and the arts. Submissions, including an abstract no longer than 300 words in either English of French, should be made, via the conference website http://eshs2018.uk, by 23.59 GMT on 28 February 2018.

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 (ICHSSE), 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

Appropriate Roles for Ethical and Social Values in Scientific Activity

Hugh Lacey, Swarthmore College & University of São Paulo

A review of: Kevin C. Elliott: *A Tapestry of Values: An introduction to values in science*. New York, Oxford University Press, 2017. xiv + 208pp. From: *Metascience* 2018, vol.27 no.1, 69-73. With thanks to editors K. Brad Wray and Luciano Boschiero.

A Tapestry of Values aims to establish that values "are not completely absent from any area of science" (p. 11) and should not "be excluded from central aspects of scientific reasoning, such as decisions about what methodolo-



gies or standards of evidence to employ" (p. 7);¹ and, also, to identify how appropriate and inappropriate roles of values may be distinguished in scientific activity. To pursue these aims, Kevin Elliott critically examines a variety of (appropriate and inappropriate) roles played by values in connection with five aspects of scientific activity:

- 1. choice of research topics and areas of research to prioritize,
- 2. methods utilized for research in areas like agriculture and medicine, and their background assumptions,
- 3. aims of particular scientific investigations,
- 4. responses to uncertainty, and

^{1.} The term "values" (unqualified) designates ethical and social (or, more generally, non-cognitive) values.

5. language used for describing and communicating scientific results.

Instead of discussing the specific arguments offered in connection with each of (1)–(5), I will make a few general remarks. The author maintains that values of any kind, "except for those that violate well-supported ethical principles" (p. 120), may have appropriate roles in scientific activity; and his emphasis is to clarify in general when, where and how values may have such roles. To be appropriate, roles played by values should "do adequate justice to empirical evidence" (p. 163); and they should be transparent, i.e., explicitly and clearly stated, so as to be open for critical discussion in forums, in which the values held among their participants are representative of those held in the social contexts that are affected by the outcomes of the relevant scientific activity, and in which there is engagement with those who question the roles, or the specific values in play in them, that draws in appropriate ways (discussed in detail in ch. 7) on the experience, values and knowledge of all the participants.

Elliott discusses the roles played by specific values (e.g., of commerce, or of social justice and respect for human rights) only insofar as they illustrate conflicts that affect scientific outcomes. However, his interpretation of representativeness and engagement is informed by his refined liberal sensibility, awareness of diversity and sense of social justice sharpened by empathy with the marginalized. This leads him to foreground some conflicts (e.g., regarding priorities for medical research) whose outcomes may disadvantage people in poor regions of the world, and methodological approaches that are favorable to the marginalized (e.g., community based participatory research, p. 133).

According to the author, when roles played by values lead to controversial outcomes, "more thoughtful" discussion of the values involved is facilitated by holding to the conditions of transparency, representativeness and engagement, in the light of which, he hopes, "we can guide the values that influence research so that we can better serve our ethical and social goals" (p. xi). It is likely to contribute to more thoughtful discussion, but unlikely to ensure generally that conflicts will be resolved or consensus reached; and, as acknowledged (p. 174), there are dif-

ficulties confronting efforts to engage in discussion in which these conditions are respected, especially when there are inequalities of power and adequate democratic forums are not available.

Questions that do not lie within the purview of *A Tapestry of Values* thereby arise, e.g.: (a) How to proceed in situations when consensus is not reached and conflict remains, or when efforts to engage in discussion, in which the three conditions are satisfied, are unsuccessful? In those situations: (b) what kind of reasoning should be deployed to support the particular value judgments that may inform one's scientific activity? and (c) what political activities and alliances might have to be pursued in order to obtain the financial and other conditions needed to engage in research that is not prioritized by the dominant interests in a society, e.g., where values related to the interests of the marginalized connected with agriculture or medicine inform key aspects of it? (d) What are the systematic implications of adhering to specific values (e.g., those embodied in commercial interests) – either by individual scientists and institutions – regarding the form and direction of the overall trajectory of scientific activity, and regarding adherence to the three conditions of transparency, representativeness and engagement?

What does lie within the book's purview – how values may play appropriate roles in all of the aspects (1)–(5) of scientific activity, and steps that can be taken to identify and counter inappropriate ones – is of considerable interest. Moreover, it is well-argued, well-organized, and presented lucidly. The issues addressed are well illustrated by numerous case studies, engaging anecdotes and mini portraits of relevant scientists. As the author intends, the book is accessible to the general public, as well as to students in elementary courses on science policy, research ethics, history of science, environmental studies, science and technology studies, and the philosophy of science. In addition, it draws freely on, and serves as an introduction to, the wide range of recent philosophical writings that deal with questions of science and values, including writings by Helen Longino, Philip Kitcher, Heather Douglas, Kristin Shrader-Frechette, Carl Cranor, Sheldon Krimsky, Janet Kourany, Hugh Lacey and (of course) the author himself. Kevin Elliott, an associate professor of philosophy at Michigan State University, is a leading and prolific

contributor to current discussions on the themes of the book, and co-editor with Daniel Steel of *Current Controversies in Values and Science* (New York, Routledge, 2017) and with Ted Richards of *Exploring Inductive Risk: Case studies of values in science* (New York, Oxford University Press, 2017). Hopefully he will write a sequel to this book that goes beyond the introductory level and that also addresses questions like (a)–(d) above.

The strength of this book lies in its marshalling of compelling arguments concerning each of the aspects (1)–(5), and enabling some generalizations to be drawn from them. However, a notable aspect of scientific activity (for many scientists, the central one) is barely glanced at, namely, that scientific activity has given rise to a vast and growing repository of settled scientific knowledge, whose empirical credentials are recognized as sound regardless of value disagreements, about a wide range of objects and phenomena. All of (1)–(5), to greater or lesser degrees, draw upon this repository and sometimes contribute to its expansion. Students being educated in the natural science disciplines spend a large part of their time becoming immersed in it. Moreover, the textbooks they study and the journal articles they read do not seem to support (for values are seldom even mentioned in them) that values have a role to play connected with what methodologies to deploy for dealing with their disciplines' objects of inquiry and the standards of evidence deployed in appraising claims of scientific knowledge. A Tapestry of Values does not engage with this.

In particular, none of (1)–(5) has to do with the criteria and evidential standards involved in making sound judgments about claims of scientific knowledge, exemplary items of which are found in the natural sciences. Some of them do pertain to research activities carried out in the natural science: "even in theoretical areas of physics, scientists and policymakers still face decisions about how much money to spend on different topics and how best to frame and communicate new findings" (p. 11). All concern the agency of scientists, and/or the interface of scientific activity with social/institutional/political/commercial practices or with phenomena of significance or personal interest in the social world, in contexts where (in varying degrees) agents, who are not professional scientists, are also appropriate

participants in making decisions. The five aspects are indeed value-laden in many of the ways described in the book; but, no basis is offered for generalizing this conclusion to all aspects of scientific activity, in particular to those that involve making judgments about the cognitive credentials of claims of scientific knowledge and understanding.

Elliott maintains that collectively his arguments provide grounds for rejecting what he (and several recent writers) have called the value-free ideal, the ideal that "values should be excluded from central aspects of scientific reasoning, such as decisions about what methodologies or standards of evidence to employ" (p. 7). This "ideal" should be rejected, he maintains, because it is the source of distorted understanding of science and its role in society, and because it can enable claims, based on research or arguments where specific values are covertly functioning, to pass as outcomes of sound scientific research. I agree that it should be rejected, both as an empirical idealization and as a regulative ideal of inquiry. Not only has the author clearly demonstrated the value-laden character of the five aspects of scientific activity he discusses, but also it is hard to imagine what kinds of arguments might be proposed to support it.² Those who do appeal to the "ideal" tend to just insinuate that it is a traditional ideal of modern science.

Elliott cites my book (Lacey, 1999), among other writings, as providing arguments for the *value-free ideal* (p. 17). It does not. Here labels can mislead. Throughout its history, modern science has been said to incorporate two ideals that, at some risk of over-simplification, may be put: (i) the criteria for determining whether or not a claim (hypothesis) is an item of established scientific knowledge, and the standards for appraising the sufficiency of the evidence supporting it, do not presuppose or depend upon any ethical and social value judgments (for convenience, call this the VALUE-FREE IDEAL); and (ii) scientific knowledge belongs to the patrimony of humankind; its uses should be inclusive and evenhanded, not predominantly at the service of interests that embody specific values at the expense of others (Lacey, 1999, 2017).

^{2.} I have kept in close touch with the literature on these themes for decades, but I have never seen a carefully argued defence of the *value-free ideal*.

Note that the VALUE-FREE IDEAL has to do with established scientific knowledge. The standards for appraising the sufficiency of the evidence appealed to, when considering whether or not a claim is an item of established scientific knowledge, do not presuppose or depend upon value judgments.³ They are different from the standards used for judging that a claim is sufficiently well confirmed to justify its informing practical social actions (including those involved in conducting scientific research) and deliberations about regulatory and policy matters. Here we are at the interface of scientific activity and social practices, where – unless action is to come to a standstill – it is appropriate to allow action to be informed by results of scientific research that do not meet the standards of evidence required for items of scientific knowledge. When determining what these latter standards should be, value judgments have roles that cannot be avoided. (How to distinguish appropriate from inappropriate uses of values in this context is well illustrated by the discussion of risk studies in chapter 5.) I do defend the VALUE-FREE IDEAL. But it does not imply the value-free ideal.

Moreover, I suggest, any plausibility that the *value-free ideal* may appear to have derives from its being a distortion of the VALUE-FREE IDEAL, one that results from ignoring or denying that there are different evidential standards, and different kinds of considerations involved in setting them, for (on the one hand) appraising scientific knowledge and (on the other hand) judging that a claim is sufficiently well confirmed to justify its informing decisions at the interface of scientific activity and broader social practices. Furthermore, the ideal (ii) (itself functioning at this interface) is inconsistent with the *value-free ideal*; and adhering to it would support the requirements of transparency, representativeness and engagement in the way that the author proposes.

Elliott is right that many important aspects of scientific activity, including some that concern decisions taken in connection with cutting-edge research, are value-

^{3.} There are hints that the author might agree. He writes, "If a group of scientists is trying to decide whether a theory is likely to be true or reliable, then values are typically not relevant to answering this question. ... Values may not be relevant when scientists are deciding what to accept ..." (p. 73), and "When science is being produced primarily for other scientists, it might seem somewhat questionable to appeal to social values when setting standards of evidence" (p. 99). But the hints are not followed up.

laden. It is certainly worthwhile to challenge science students (as well as the public in general) to think about this. But these students are being formed in a context that generally presupposes that scientific activity leaves in its wake a repository of settled knowledge that has been established using criteria/standards that are not value-laden, and that this repository may be drawn upon as appropriate in any ongoing scientific activities without its cognitive credentials being questioned. The challenge to these students is weakened, I suggest, when this presupposition is not addressed. Philosophers, who do not accept it, should offer arguments directly against it; and this would entail offering arguments against the VALUE-FREE IDEAL and not just the *value-free ideal*. It is not uncommon that writings in the philosophy of science (e.g., of the logical empiricists, Popper, Kuhn and Laudan) give scant attention to the interface of scientific activity and broader social practices, and focus on such general matters as confirmation, falsification and explanation, the nature and structure of physical and biological theories, and the unfolding of the internal dynamic of scientific investigation, in connection with which values (as distinct from epistemic or cognitive values) seldom are mentioned. It is as if these writings provide the underpinnings of the VALUE-FREE IDEAL, without bothering to point out that it does not imply the value-free ideal.

A Tapestry of Values does more or less the opposite; it provides compelling arguments to reject the value-free ideal; but, since it includes only passing remarks on the aspects of science under discussion in these writings, it leaves the value-free ideal untouched. There are writings that do put the two together (Feyerabend, Hacking and Kitcher come to mind), but I am not aware of an elementary text that does so. I suggest that this book could be very useful in elementary courses of philosophy of science, especially if it were paired with some elementary writings on the themes just mentioned. That would foster a more complete and ethically informed understanding of science.

References

Lacey, H. (1999) *Is Science Value Free? Values and scientific understanding.* London: Routledge.

Lacey, H. (2017) "Distinguishing between cognitive and social values." In Kevin Elliott & Daniel Steel (eds.), *Current Controversies of Values in Science*, pp. 15–30. New York: Routledge.

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/

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.

Candidate's Name and email: Andreas Henke, ahenke@uni-bremen.de

Institution: University of Bremen, Institute of Didactics of Natural Sciences

Supervisors: Prof. Dr. Dietmar Höttecke and Prof. Dr. Horst Schecker

Thesis title: Lehren und Lernen über die Natur der Naturwissenschaften – Potentiale historisch orientierten Physikunterrichts

(EN: Teaching and learning about the nature of science – exploring the potentials of HPS in teaching physics)

Abstract of 100-300 words

"This thesis highlights the chances, but also the difficulties of stimulating explicit and reflexive learning about the nature of science (NOS)

within the framework of an historical-investigative approach to physics teaching. Within the EU project HIPST teaching units according to this framework were developed in teacher-researcher-teams and were tested multicylically at secondary schools in Lower Saxony. In the course of several empirical investigations, first 8th grade student's conceptions of the historical development of science were investigated. Subsequently, the teachers involved in HIPST were asked about their perceived difficulties in implementing the historical-investigative teaching units. Finally, the effects of this type of teaching were explored in detail by comparing changes in pupils' conceptions about the NOS within two lesson series (also 8th grade): One following a historical-investigative approach, the other following an inquiry-learning approach. Both featured explicit and reflective learning opportunities on the same NOS ideas. Additionally, trait-treatment-interactions were explored, i.e. for both teaching approaches the effects of several motivational measures of students on their learning about the NOS were compared. Quantitatively, both treatments result in similar NOS learning outcomes. Motivational measures only influence Nos learning in the context of the inquiry based unit. Qualitatively, three conclusions can be drawn from the results:

- 1. Some educational properties of historical-investigative teaching of physics need to be consistent with its Nos learning goals and content: the degree of open-endedness and pre-structuredness of classroom experiments and their conceptual and methodological learning goals; the ways and aims of promoting empathy with historical scientists and of dramatizing historical information.
- 2. Science teachers only feel competent about teaching the Nos within historical-investigative lessons, if they have knowledge about pupils' ideas about history and about the Nos, if they know the advantages and disadvantages of different pedagogical models for coordinating historical and current science concepts, and if

- they are able to give meaning to historical classroom investigations by mediating between the pupil's autonomy and the openendedness of authentic investigations on the one hand and the closed-endedness of history and of the curriculums' conceptual learning demands on the other hand.
- 3. Student's perspectives their preexisting ideas about the Nos, their abilities concerning historical thinking, their affinity for physics teaching, as well as their learned expectations towards physics teaching determine whether and how they make sense of historical-investigative physics teaching, of the Nos learning opportunities, and of the historical information contextualizing them."

Recent HPS&ST Research Articles

- Blumenthal, G. (2018) Priestley's views on the composition of water and related airs. *Foundations of Chemistry*, 1-32. doi:10.1007/s10698-018-9314-y online first
- Brock, R. (2018) Lucky Belief in Science Education: Gettier Cases and the Value of Reliable Belief-Forming Processes. *Science & Education*, 1-12. doi:10.1007/s11191-018-9972-0 online first
- Fan, F. (2018) Can animals predict earthquakes?: Bio-sentinels as seismic sensors in communist China and beyond. *Studies in History and Philosophy of Science Part A*, 1-12. doi:10.1016/j.shpsa.2018.05.009 online first
- Gandolfi, H. E. (2018) Different People in Different Places: Secondary School Students' Knowledge About History of Science. *Science & Education*, 1-39. doi:10.1007/s11191-018-9971-1 Online first.
- Goulding, R. (2018) Binocular vision and image location before Kepler. Archive for

- History of Exact Sciences, 1-50. doi:10.1007/s00407-018-0210-6
- Williams, M. (2018) The Missing Curriculum in Physics Problem-Solving Education. *Science & Education*, 1-21. doi:10.1007/s11191-018-9970-2 online first
- Kuby, D. (2018) Carnap, Feyerabend and the pragmatic theory of observation. *Ho- Pos: The Journal of the International Society for the History of Philosophy of Science*, 1-52. doi:10.1086/698695
- Lusinchi, D. (2018) 'The Great Fiasco' of the 1948 presidential election polls: status recognition and norms conflict in social science. *Annals of Science*, 1-26. doi:10.1080/00033790.2018.1466194 online first
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- 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
- Nelson, P. G. (2018) What is chemistry that I may teach it? *Foundations of Chemistry*, 1-13. doi:10.1007/s10698-018-9315-x online first
- Niss, M. (2018) What Is Physics Problem-Solving Competency? The Views of Arnold Sommerfeld and Enrico Fermi. *Science & Education*, 1-13. doi:10.1007/s11191-018-9973-z online first
- O'Raifeartaigh, C., O'Keeffe, M., Nahm, W. and Mitton, S. (2018). One Hundred Years of the Cosmological Constant: from 'Superfluous Stunt' to Dark Energy. *Eur. Phys. J.* (*H*), 43(1), pp 1-30. https://arxiv.org/abs/1711.06890.
- O'Raifeartaigh, C., O'Keeffe, M., Nahm, W. and Mitton, S. (2017). Einstein's 1917 Static Model of the Universe: A Centennial Review. *Eur. Phys. J. (H)*, 42 (3), pp 431-474. https://arxiv.org/abs/1701.07261.
- Pekdağ, B., & Azizoğlu, N. (2018) History-Based Instruction Enriched with Various Sources of Situational Interest on the Topic of the Atom: the Effect on Stu-

Recent HPS&ST Related Books

Dooley, Brendan (2018) *The Continued Exercise of Reason: Public Addresses by George Boole.* Cambridge, MA: The MIT Press ISBN: 9780262535007

"George Boole (1815–1864), remembered by history as the developer of an eponymous form of algebraic logic, can be considered a pioneer of the information age not only because of the application of Boolean logic to the design of switching circuits but also because of his contributions to the mass distribution of knowledge. In the classroom and the lecture hall, Boole interpreted recent discoveries and debates in a wide range of fields for a general audience. This collection of lectures, many never before published, offers insights into the early thinking of an innovative mathematician and intellectual polymath.

"Bertrand Russell claimed that "pure mathematics was discovered by Boole," but before Boole joined a university faculty as professor of mathematics in 1849, advocacy for science and education occupied much of his time. He was deeply committed to the Victorian ideals of social improvement and cooperation, arguing that "the continued exercise of reason" joined all disciplines in a common endeavor. In these talks, Boole discusses the genius of Isaac Newton; ancient mythologies and forms of worship; the possibility of other inhabited planets in the universe; the virtues of free and open access to knowledge; the benefits of leisure; the quality of education; the origin of scientific knowledge; and the fellowship of intellectual culture. The lectures are accompanied by a substantive introduction by Brendan Dooley, the editor of the volume, that supplies biographical and historical context." (From the Publisher)

More information available here.

Frischmann, Brett, & Selinger, Evan (2018) *Re-Engineering Humanity*. Cambridge, UK: CUP ISBN: 9781107147096

"Every day, new warnings emerge about artificial intelligence rebelling against us. All the while, a more immediate dilemma flies under the radar. Have forces been unleashed that are thrusting humanity down an ill-advised path, one that's increasingly making us behave like simple machines? In this wide-reaching, interdisciplinary book, Brett Frischmann and Evan Selinger examine what's happening to our lives as society embraces big data, predictive analytics, and smart environments. They explain how the goal of designing programmable worlds goes hand in hand with engineering predictable and programmable people. Detailing new frameworks, provocative case studies, and mind-blowing thought experiments, Frischmann and Selinger reveal hidden connections between fitness trackers, electronic contracts, social media platforms, robotic companions, fake news, autonomous cars, and more. This powerful analysis should be read by anyone interested in understanding exactly how technology threatens the future of our society, and what we can do now to build something better." (from the publisher)

More information available here.

Lepore, Frederick E. (2018) *Finding Einstein's Brain*. New Brunswick, NJ: Rutgers University Press. ISBN: 978-0-8135-8039-5

"Albert Einstein remains the quintessential icon of modern genius. Like Newton and many others, his seminal work in physics includes the General Theory of Relativity, the Absolute Nature of Light, and perhaps the most famous equation of all time: $E=mc^2$.

"Following his death in 1955, Einstein's brain was removed and preserved, but has never been fully or systematically studied. In fact, the sections are not even all in one place, and some are mysteriously unaccounted for! In this compelling tale, Frederick E. Lepore delves into the strange, elusive afterlife of Einstein's brain, the controversy surrounding its use, and what its study represents for brain and/or intelligence studies.

"Carefully reacting to the skepticism of 21st century neuroscience, Lepore more broadly examines the philosophical, medical, and scientific implications of brain-examination. Is the brain simply a computer? If so, how close are we to artificially creating a human brain? Could scientists create a second Einstein? This "biography of a brain" attempts to answer these questions, exploring what made Einstein's brain anatomy exceptional, and how "found" photographs—discovered more than a half a century after his death—may begin to uncover the nature of genius." (From the Publisher)

More information available here.

Morris, Errol (2018) *The Ashtray (Or the Man Who Denied Reality)*. Chicago, IL: University of Chicago Press

"A wonderful read, combining memoir, epistemological reflection, the ethnography of academic philosophy – and confession of faith. *The Ashtray* will provoke and stimulate any serious reader, but it will provide particular insights for anyone familiar with Morris's important films."

- Charles E. Rosenberg, Harvard University

"Errol Morris is a remarkable documentary film maker. He pursues his craft in the conviction that there is truth to be found and that creative and determined efforts will uncover it. In this extraordinary book, Morris explores his animating philosophical commitments about truth, reality, and knowledge. He presents his outlook in sharp opposition to ideas about relativism and incommensurability that he associates with Thomas Kuhn's profoundly influential The Structure of Scientific Revolutions. Morris's book is entertaining and engaging, but above all else it offers us a compelling exploration of the value of truth." – Joshua Cohen, Apple University

"This book is brilliant, thought-provoking, sometimes infuriating, and nearly always convincing. Everyone interested in the fate of truth and knowledge in these postmodern, alternative fact times should read it." – David Wootton, author of *Power, Pleasure, and Profit*

More information available here.

Ohl, Michael (2018) *The Art of Naming*. (Elisabeth Lauffer, Trans.). Cambridge, MA: Cambridge University Press. ISBN: 9780262037761

"Tyrannosaurus rex. Homo sapiens. Heteropoda davidbowie. Behind each act of scientific naming is a story. In this entertaining and illuminating book, Michael Ohl considers scientific naming as a joyful and creative act. There are about 1.8 million discovered and named plant and animal species, and millions more still to be discovered. Naming is the necessary next step after discovery; it is through the naming of species that we perceive and understand nature. Ohl explains the process, with examples, anecdotes, and a wildly varied cast of characters. He describes the rules for scientific naming; the vernacular isn't adequate. These rules—in standard binomial nomenclature, the generic name followed by specific name—go back to Linnaeus; but they are open to idiosyncrasy and individual expression. A lizard is designated *Barbaturex morrisoni* (in honor of the Doors' Jim Morrison, the Lizard King); a member of the horsefly family *Scaptia bey*-

onceae. Ohl, a specialist in "winged things that sting," confesses that among the many wasp species he has named is *Ampulex dementor*, after the dementors in the Harry Potter novels. Scientific names have also been deployed by scientists to insult other scientists, to make political statements, and as expressions of romantic love: "I shall name this beetle after my beloved wife."

"The Art of Naming takes us on a surprising and fascinating journey, in the footsteps of the discoverers of species and the authors of names, into the nooks and crannies and drawers and cabinets of museums, and through the natural world of named and not-yet-named species." (From the Publisher)

More information available here.

Porter, Theodore M. (2018) *Genetics in the Madhouse: The Unknown History of Human Heredity*. Cambridge MA; Princeton University Press ISBN:9781400890507

"In the early 1800s, a century before there was any concept of the gene, physicians in insane asylums began to record causes of madness in their admission books. Almost from the beginning, they pointed to heredity as the most important of these causes. As doctors and state officials steadily lost faith in the capacity of asylum care to stem the terrible increase of insanity, they began emphasizing the need to curb the reproduction of the insane. They became obsessed with identifying weak or tainted families and anticipating the outcomes of their marriages. Genetics in the Madhouse is the untold story of how the collection and sorting of hereditary data in mental hospitals, schools for "feebleminded" children, and prisons gave rise to a new science of human heredity.

"In this compelling book, Theodore Porter draws on untapped archival evidence from across Europe and North America to bring to light the hidden history behind modern genetics. He looks at the institutional use of pedigree charts, censuses of mental illness, medical-social surveys, and other data techniques—innovative quantitative practices that were worked out in the madhouse long before the manipulation of DNA became possible in the lab. Porter argues that asylum doctors developed many of the ideologies and methods of what would come to be known as eugenics, and deepens our appreciation of the moral issues at stake in data work conducted on the border of subjectivity and science. "A bold rethinking of asylum work, *Genetics in the Madhouse* shows how heredity was a human science as well as a medical and biological one." (From the Publisher)

More information available here.

Reynolds, Andrew S. (2018) *The Third Lens: Metaphor and The Creation of Modern Cell Biology*. Chicago, IL: University of Chicago Press. ISBN: 9780226563268

"Does science aim at providing an account of the world that is literally true or objectively true? Understanding the difference requires paying close attention to metaphor and its role in science. In *The Third Lens*, Andrew S. Reynolds argues that metaphors, like microscopes and other instruments, are a vital tool in the construction of scientific knowledge and explanations of how the world works. More than just rhetorical devices for conveying difficult ideas, metaphors provide the conceptual means with which scientists interpret and intervene in the world.

"Reynolds here investigates the role of metaphors in the creation of scientific concepts, theories, and explanations, using cell theory as his primary case study. He explores the history of key metaphors that have informed the field and the experimental, philosophical, and social circumstances under which they have emerged, risen in popularity, and in some cases faded from view. How we think of cells—as

chambers, organisms, or even machines—makes a difference to scientific practice. Consequently, an accurate picture of how scientific knowledge is made requires us to understand how the metaphors scientists use—and the social values that often surreptitiously accompany them—influence our understanding of the world, and, ultimately, of ourselves.

"The influence of metaphor isn't limited to how we think about cells or proteins: in some cases they can even lead to real material change in the very nature of the thing in question, as scientists use technology to alter the reality to fit the metaphor. Drawing out the implications of science's reliance upon metaphor, *The Third Lens* will be of interest to anyone working in the areas of history and philosophy of science, science studies, cell and molecular biology, science education and communication, and metaphor in general." (From the Publisher)

More information available here.

Rutten, Kris, Blancke, Stefaan and Soetaert, Ronald (Eds.) (2018) *Perspectives on Science and Culture*. West Lafayette, IN: Purdue University Press. ISBN 13: 9781557537973

"This is a fascinating interdisciplinary collection exploring the tensions between what C.P. Snow famously called the 'two cultures' of science and the humanities, at the same time very positively showing how themes and methods from philosophy, history, literature studies, and much more can lead to a deeper understanding both of science and of the culture that produced it. It is very well worth reading." – Michael Ruse, Lucyle T. Werkmeister Professor and Director of HPS Program, Florida State University

"Public (mis)understanding of science plays an increasingly important role, with widespread misconceptions regarding vaccines, climate change, evolution, or GMOs leading to misguided political actions.

In Perspectives on Science and Culture, the editors have assembled a rich set of chapters in order to better grasp the factors that shape public understanding of science. The book's strength lies in drawing on a very diverse set of traditions, from literary analysis to cognitive science. In doing so, the editors demonstrate that putting aside the culture war between science and the humanities, while often still difficult, is a worthwhile effort." – Hugo Mercier, CNRs researcher, Institut des Sciences Cognitives - Marc Jeannerod

"Rutten, Blancke, and Soetaert's volume is a wonderful achievement. Drawing together scholars of rhetoric, culture, cognitive science, and epistemology, each chapter offers intriguing insights into the discourse structures, cultural representations, and psychological tendencies that can impede public understanding of science. In an age where ignorance about the science of anthropogenic climate change and evolution grows ever more costly, this important volume could not be more timely. Its clarion call for consilience between the sciences and humanities is profoundly welcome." – Deborah Kelemen, Professor of Psychological and Brain Sciences, Boston University

More information available here.

Shank, J.B. (2018) *Before Voltaire: The French Origins of "Newtonian" Mechanics*, 1680-1715. Chicago, IL: University of Chicago Press. ISBN: 9780226509297

"We have grown accustomed to the idea that scientific theories are embedded in their place and time. But in the case of the development of mathematical physics in eighteenth-century France, the relationship was extremely close. In Before Voltaire, J.B. Shank shows that although the publication of Isaac Newton's *Principia* in 1687 exerted strong influence, the development of calculus-based physics is better understood as an outcome that grew from French culture in general.

"Before Voltaire explores how Newton's ideas made their way not just through the realm of French science, but into the larger world of society and culture of which *Principia* was an intertwined part. Shank also details a history of the beginnings of calculus-based mathematical physics that integrates it into the larger intellectual currents in France at the time, including the Battle of the Ancients and the Moderns, the emergence of wider audiences for science, and the role of the newly reorganized Royal Academy of Sciences. The resulting book offers an unprecedented cultural history of one the most important and influential elements of Enlightenment science." (From the Publisher)

More information available here.

Winther, Rasmus Grønfeldt (Ed.) (2018) *Phylogenetic Inference, Selection Theory, and History of Science: Selected Papers of A.W.F. Edwards with Commentaries.* Cambridge, UK: CUP ISBN: 9781107111721

"A.W.F. Edwards is one of the most influential mathematical geneticists in the history of the discipline. One of the last students of R.A. Fisher, Edwards pioneered the statistical analysis of phylogeny in collaboration with L.L. Cavalli-Sforza, and helped establish Fisher's concept of likelihood as a standard of statistical and scientific inference. In this book, edited by philosopher of science Rasmus Grønfeldt Winther, Edwards's key papers are assembled alongside commentaries by leading scientists, discussing Edwards's influence on their own research and on thinking in their field overall. In an extensive interview with Winther, Edwards offers his thoughts on his contributions, their legacy, and the context in which they emerged. This book is a resource both for anyone interested in the history and philosophy of genetics, statistics, and science, and for scientists seeking to develop new algorithmic and statistical methods for understanding the genetic relationships between and among species both extant and extinct." (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

June 29-July 1, 2018, Annual Conference of the Society for Applied Philosophy. Utrecht, The Netherlands.

More information available here.

- June 30-July 2, 2018, 7th spsp Congress, Ghent University, Belgium Details, Erik Weber, Erik.Weber@UGent.be.
- July 2-4, 2018, 3rd International Conference on Science and Literature, Paris. Details, George N. Vlahakis, gvlahakis@yahoo.com.
- 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 4-6, 2018, BSPS 2018 Annual Conference, University of Oxford, UK. More information available here.
- July 4-6, 2018, VIIème Congrès de la Société de Philosophie des Sciences, Nantes, France.

Details at: https://congressps.sciencesconf.org/resource/page/id/1

July 4-6, 2018, BSPS 2018 Annual Conference, University of Oxford, UK More information available here.

July 4-6, 2018, VIIème Congrès de la Société de Philosophie des Sciences, Nantes, France.

Details available here.

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 9-11, 2018, FAPSA 2018 Conference: The Future of Philosophy in Schools. The University of Notre Dame, Fremantle, Australia.

Details available here.

July 9-12, 2018, нороз 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/

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 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 Transna-

tional 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.eus/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 Dis-

orders, 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 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, Austalia.

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