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Newsletter of The History of Philosophy of Science (HOPOS) Working Group

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Inside this issue:

From the Editor

It is with great excitement and anticipation that we report in the present Newsletter on the upcoming HOPOS international conference, to be held at Concordia University in Montréal next June. The conference organizers for HOPOS 2002 have created a useful website (http://www.hopos2002.org) and a lovely poster—portents of a well-run, successful meeting.

Readers will note that the HOPOS membership form has been removed from the back of the Newsletter, as it is free-standing on the HOPOS website (http://scistud.umkc.edu/hopos). This change helps make room for additional book reviews or conference reports.

The book reviews in this issue range over a broad set of issues, including Comte's views of social science (Gertrude Lenzer's reprinted collection of his work, reviewed by Pawel Kawelec), 19th and 20th century physics (Holton's reprinted Advancement of Science, reviewed by Val Dusek), application of evolutionary theory in the social sciences (Alexander Rosenberg's recent collection of essays, reviewed by Maureen O'Malley), and the history of measurement theory in psychology (Joel Michell's survey, reviewed by Robert Faux).

The travelogue piece is dedicated to resources of Hungary. This rich collection of information was compiled and set into context by Laszlo Ropolyi. His article tells the exciting story of a tremendous growth in HOPOS-related studies in Hungarian institutions over merely two decades.

Growth and change have also marked the HOPOS Working Group, which is now in its tenth year (!). The Working Group has functioned well to date as a relatively informal organization. Nonetheless, the organizational output, interaction of its members, and financial arrangements and needs continue to grow more complex. The time is propitious to reorganize along more formal lines, and a group of the Steering Committee members is exploring the best means of doing so. This may entail adopting an organizational structure similar to that of more established scholarly societies. At all events, the HOPOS informal, gemütlich ethos will continue on, as befits a scholarly society that has been globally connected by electronic means from its inception.

Most humble apologies for (yet another) late issue of the Newsletter,
Saul Fisher

HOPOS 2002 in Montréal: CFP

The Working Group in History of Philosophy of Science (HOPOS) will hold its fourth international congress in Montréal, Canada, June 21-23, 2002. The congress is being held in cooperation with Concordia University, McGill University, the Université de Montréal, and the Université du Québec à Montréal. The conference is open to scholarly work in French or English on the history of philosophy of science from any disciplinary perspective. Submissions of abstracts, in French or English, of papers of approximately 30 minutes' reading length, and of symposia of three to four thematically related papers will be considered for the program.

The plenary speakers will

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be François Duchesneau (Université de Montréal) and Don Howard (University of Notre Dame).

The guidelines for submissions are as follows. Abstracts of individual paper submissions should be between 250 and 500 words in length. Panel proposals should include one panel abstract, names and contact addresses of all participants, and abstracts of 250 words for each of three to four papers. All submissions should arrive by *January 1, 2002*; notification of acceptance of submissions will be provided by *March 1, 2002*. The preferred format for all submissions is plain ASCII text or RTF attachment submitted by email to hopos2002@arts.ubc.ca with "HOPOS 2002 Submission" in the subject line of the email. Other submissions should include one paper copy and one copy in plain ASCII or RTF format on a 3.5" DOS diskette and be sent to:

Alan Richardson, Co-Chair,
HOPOS 2002 Program Committee
Department of Philosophy
1866 Main Mall - E370
University of British Columbia
Vancouver, BC V6T 1Z1
CANADA

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Program Committee for HOPOS 2002:

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Conservatoire National des Arts et Métiers
Lisa Downing,
University of Illinois at Chicago
Jean Leroux,
University of Ottawa
Eric Lewis,
McGill University
Margaret Schabas,
York University

Local Arrangements and Registrar:

Andrew Wayne,
Concordia University

The website of HOPOS 2002 is http://www.hopos2002.org.

Mephistos 2001: 19th annual graduate student conference at Notre Dame—A report

From March 30 through April 1, 2001, twenty-five graduate student presenters plus thirty other attendees gathered at the University of Notre Dame for the nineteenth Mephistos Graduate Student Conference in History, Philosophy, and Sociology of Science, Technology, and Medicine. Presenters from as far away as Massachusetts, Florida, and California gathered at Notre Dame for nine sessions, including: 'History and Philosophy of Modern Physics', 'Aristotle's Philosophy and Natural Inquiries', 'Health in Context: New Approaches to the History of Medicine', and 'Science and Nationality'. Abstracts for all presentations remain available at http://www.nd.edu/~meph2001.

Financial support, including about $4000 for travel grants, was generously provided by the Program in History and Philosophy of Science; the John J. Reilly Center for Science, Technology, and Values; and other academic units at the University of Notre Dame. The conference was organized by Notre Dame HPS graduate students Elizabeth Hayes, Keith Lafortune, and Ryan MacPherson, with assistance from fellow HPS graduate student Matthew Dowd and the previous year's Mephistos organizer, Gary Kroll of the University of Oklahoma.

The Mephistos tradition dates to 1981, when graduate students Lynn Nyhart at the University of Pennsylvania and Thomas Broman at Princeton University organized a 'Mid-Atlantic Seminar in the History of Science'. Nyhart and Broman's conference was then passed around to various eastern universities under the informal title 'graduate student conference'. Following a 'no faculty members allowed' policy, the conference provided graduate students with a low-key atmosphere for honing their skills without worry of making mistakes in front of potential future employers.

The first conference was held during the 1981–1982 academic year with the special aim of fostering communication between students at Penn and Princeton. Half a dozen graduate students delivered papers. This first conference ran on a $40 budget, spent mostly on donuts and soft drinks. As Nyhart recalls, "We paid for our own pizza."

In the years that followed, the conference grew and acquired a new name. By 1994, Harvard was hosting a conference known as 'MEPHISTOS' and advertised as 'the 13th Annual Graduate Student Conference in the History, Philosophy, and Sociology of Science, Technology, and Medicine'. Over 100 graduate students attended. During the 1990s, MEPHISTOS proved to be more than a regional conference: Indiana University hosted in 1995, followed by Toronto (1996), UCLA (1997), Minnesota (1998), Oklahoma (1999, rescheduled for 2000), and most recently, Notre Dame (2001).

The origin of the name 'MEPHISTOS' is uncertain. For a time, the conference was advertised as 'MePHiSToS', apparently an acronym for some of the key words in its descriptive sub-

Mephistos 2001 Report

title: medicine, philosophy, history, technology, and sociology of science. The 2001 conference committee at Notre Dame renamed the conference 'Mephistos', with no acronym intended. Whatever the name, the main intention remains the same as it had been in 1981: Mephistos provides an opportunity for graduate students to present papers, participate in discussions, and meet other students in related disciplines within a relaxed, informal setting. Mephistos is planned by graduate students, for graduate students.

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Feyerabend papers: A Public Appeal

In 1996, the Philosophical Archives of the University of Konstanz acquired the papers of Paul K. Feyerabend. The recent gift of a significant number of letters and documents of Paul Feyerabend by his former assistant Christian Thomas gives us reason to presume that there is still more material in the possession of people who worked with Feyerabend or exchanged letters with him.

To prevent such material from being lost we kindly request all persons who own or know about letters, documents or unpublished writings by Paul Feyerabend to inform the Philosophical Archives at the address given below. If such persons wish to keep the original documents in their possession, it would still be very helpful to register their existence and to arrange an agreement with respect to their future use or at least to make copies of the originals.

Although it is the principle and practice of the Philosophical Archives to make all its holdings easily accessible to all interested users, items that make direct and personal reference to individuals alive today are sequestered unless such individuals declare their willingness to make the documents publicly available. As a rule, such items are entered in the catalogue, but are not open to the users of the archives.

Please feel free to ask about details of the Philosophical Archives as an institution. For information, contact Gereon Wolters (gereon.wolters@uni-konstanz.de) or Brigitte Uhlemann (brigitte.uhlemann@uni-konstanz.de), or go to http://www.uni-konstanz.de/FuF/Philo/Philosophie/Forschung/archiv.htm.

Grazia Borrini Feyerabend

News of the profession.

Call for Reports.

The Newsletter features occasional, concise reports on conferences of interest to HOPOI. If you are interested in writing such reports, please contact the Editor.

Seminars, Conference and Colloquia.

- October 3-December 12, 2001
University of Leeds, UK
History & Philosophy of Science Seminar
Fortnightly seminars
Wednesdays. For information, contact Greg Radick (g.m.radick@leeds.ac.uk).

- October 9, 2001-June 4, 2002
Seminar on the History and Philosophy of Physics:
History and Philosophy of Measurement
REHSEIS, Paris
Monthly, Tuesdays. For information, contact Anouk Barberousse (barberou@philosophie.ens.fr), Nadine de Courtenay (decourtenay@wanadoo.fr), or Olivier Darrigol (darrigol@paris7.jussieu.fr).

- November 9, 2001-May 3, 2002
Centre d'Histoire des Sciences et des Philosophies Arabes et Médiévales, Villejuif, France
Seminar on Experience and Experimentation before the 17th Century
Monthly, Fridays. For information, contact Muriel Rouabah (muriel.rouabah@vjf.cnrs.fr).

- November 16, 2001-June 7, 2002
REHSEIS, Paris
History and Philosophy of Biology Group Seminar on the History of Lamarckism
Fridays, monthly. For information, contact Stéphane Tirard (tirard@paris7.jussieu.fr) or Jean Gayon (gayon@noos.fr).

- November 17-18, 2001
Wake Forest University, Winston-Salem, NC
13th meeting of the Southeastern Seminar in Early Modern Philosophy
For information contact Eric Brandon (brandoe@wfu.edu) or go to http://www4.ncsu.edu:8030/~dmjphi/SESeminar/index.html.

- November 17-18, 2001
Museum für angewandte Kunst Schaumainkai, Frankfurt am Main, Germany
Symposium on Certainty, Doubt, Error: The Production of Knowledge and its Impediments in the Practice of Pre- and Early Modern Science
For information, go to http://www.uni-frankfurt.de/fb13/ign/symposium2001.html or contact Benno van Dalen (dalen@em.uni-frankfurt.de).

- December 5-6, 2001
Paris X-Nanterre, France
Colloquium on Rousseau and the sciences
For information, contact Bernadette Bensaude-Vincent (bernadette.bensaude-vincent@u-paris10.fr).

- December 18-19, 2001
Magdalen College, University of Oxford
British Society for the History of Science Postgraduate Workshop
For information, contact Chris Chilvers (christopher.

Seminars, Conference and Colloquia.

chilvers@linacre.ox.ac.uk), Faidra Papanelopolou (faidra.papanelopolou@linacre.ox.ac.uk), or Jessica Ratcliff (jessica.ratcliff@mhs.ox.ac.uk).

- January 19, 2002
Archives Poincaré, Strasbourg, France
Meeting of the Working Group on "Peirce: Science and Philosophy"
For information, contact P.-E. Bour (pierre.edouard.bour@univ-nancy2.fr).

- Spring semester, 2002
Collège International de Philosophie, Paris
Seminar on Incommensurability
For information, contact Lena Soler (lena.soler@univ-nancy2.fr).

- March 14-17, 2002
Virginia Tech,
Blacksburg, Virginia
20th Annual Mephistos Conference
Call for papers—deadline for submissions: January 7, 2002. For information, contact meph2002@vt.edu.

- March 21-22, 2002
University of East Anglia, Norwich, UK
Conference on 'The Rising Dawn': The Contribution of Alchemy to Medieval Medicine and Intellectual Life
For information, contact Jonathan Hughes (jonathan.hughes@uea.ac.uk) or go to http://www.uea.ac.uk/his/wellcome.

- April 12-13, 2002
Loyola University, New Orleans, Louisiana
South Central Seminar in the History of Early Modern Philosophy
Call for papers—deadline for submissions: January 15, 2002. For information, contact Steve Daniel (sdaniel@philosophy.tamu.edu) or go to: http://www-phil.tamu.edu/~sdaniel/seminar02.html.

- April 15-20, 2002
Nancy, France
Henri Poincaré Colloquium: Mathematics and its Interactions with other Disciplines (127th Congress of Historical and Scientific Societies)
Organized by the CTHS (Comité des Travaux Historiques et Scientifiques), Archives Henri Poincaré. For information, contact G. Heinzmann (gerhard.heinzmann@univ-nancy2.fr) or S. Mazauric (simone.mazauric@univ-nancy2.fr).

- May 8-12, 2002
University of Aarhus, Denmark
Second European Conference of the International Society for Literature and Science: Experimenting Arts and Sciences
For information, contact Randi Markussen (sls@imv.au.dk) or go to http://imv.au.dk/SLS-Europe.

- May 24-25, 2002
Center for History and Philosophy of Science, University of Paris-X (Nanterre), France
Faces of Anti-Newtonianism, 1672-1832
For information contact Philippe Hamou (philippehamou@aol.com) or Neil Ribe (ribe@ipgp.jussieu.fr).

- May 26-28, 2002
University of Toronto
Annual Conference of the Canadian Society for the History and Philosophy of Science (CSHPS)
Call for papers. For information, go to http://www.er.uqam.ca/nobel/r20430/schps_toronto_2002 (program website) or http://www.ukings.ns.ca/cshps (CSHPS website), or contact the Programme Committee—Ernst Hamm (ehamm@yorku.ca), Alan Richardson (alanr@interchange.ubc.ca), or Jean-François Auger (auger.jean-francois@uqam.ca).

- May 27-30, 2002
Águas de Lindóia (São Paulo State, Brazil)
III Philosophy and History of Science Meeting of the South Cone
Sponsored by the Association for Philosophy and History of Science of the South Cone (AFHIC). For information go to http://ghtc.ifi.unicamp.br/afhic/3Enc-port.htm (Portuguese) or http://ghtc.ifi.unicamp.br/afhic/3Enc-esp.htm (Spanish) or contact Roberto de Andrade Martins (http://www.ifi.unicamp.br/~ghtc).

- June 21-23, 2002
Montréal, Canada
Fourth Congress of the International Working Group in History of Philosophy of Science (HOPOS)
For information, go to http://www.hopos2002.org.

- June 22-26, 2002
Granada, Spain
29th Symposium of ICOHTEC - The International Committee for the History of Technology: "Technology, Cultural Interchange and Globalization"
For information, contact James C. Williams, ICOHTEC Program Committee (techjunc@pacbell.net).

- July 3-7 2002
University of Vienna
Karl Popper 2002 Centenary Congress
For information, contact Gerhard Budin (karlpopper2002.econ@univie.ac.at) or go to http://www.univie.ac.at/karlpopper2002.

- August 15-18, 2002
Center for the History of Mathematics and Sciences, Northwest University, Xi'an, China
International Colloquium on the History of Mathematics
For information, contact hs@nwu.edu.cn or go to http://hismath.go.163.com.

- September 30-October 4, 2002
Laboratoire de Philosophie et d'Histoire-Archives Henri Poincaré, Nancy, France
Symposium on Philosophical Insights in Logic and Mathematics: Historical and Current Semantic and Syntactic Theoretical Alternatives
In collaboration with the Université Nancy 2, the Beth Foundation (Amsterdam), the Institute for Logic, Language and Computation (Amsterdam) and the Goethe Institut (Nancy). For information, contact Bernd Buldt (bernd.buldt@uni-konstanz.de) or Manuel Rebuschi (manuel.rebuschi@univ-nancy2.fr)

- November 7-10, 2002
Milwaukee, Wisconsin
Philosophy of Science Association 18th Biennial Meeting
Call for papers—submissions may be sent as email attachments in pdf, ps, ASCII, Word, or html formats to psa2002@pitt.edu or by means of an interactive web site at http://www.pitt.edu/~psa2002.

Books and publication series.

- Ashgate Publishing Company has a new series, "Literary and Scientific Cultures of Early Modernity" for works regarding relations between literature and science in early modern Europe. For information, contact the series editors, Mary Thomas Crane (mary.crane.1@bc.edu) or Henry S. Turner (hsturner@facstaff.wisc.edu).

- Oxford Studies in Early Modern Philosophy is a new annual volume devoted to studies in the history of early modern philosophy. While submitted essays will be considered, most contributions will be at the recommendation of the editorial board. While everything will be published in English, essays may also be submitted in French, German, or Italian. The editors are Daniel Garber (garb@midway.uchicago.edu) and Steven Nadler (smnadler@facstaff.wisc.edu).

- Recent volumes in the Poznan Studies in the Philosophy of the Sciences and the Humanities (http://orca.st.usm.edu/poznan) include:
  - Wladyslaw Krajewski (ed), Polish Philosophers of Science and Nature in the 20th Century, Amsterdam-Atlanta, GA: Rodopi, 2000 (Vol 74).
  - Lieven Decock and Leon Horsten, Quine: Natural Epistemology, Perceptual Knowledge and Ontology, Amsterdam-Atlanta, GA: Rodopi, 2000 (Vol 70).
  - Izabela Nowakowa and Leszek Nowak, The Richness of Idealization, Amsterdam-Atlanta, GA: Rodopi, 2000 (Vol 69).

- James Franklin, The Science of Conjecture: Evidence and Probability Before Pascal. For information, go to http://www.press.jhu.edu/press/books/titles/s01/s01frsc.htm.

- Romano Gatto and Egidio Festa (ed.s), Atomismo e Continuo nel XVII Secolo, Vivarium, Napoli, 2001. For information, go to http://www.vivariumnapoli.it/atomismo.htm.

- Stephen Gaukroger, John Schuster, and John Sutton (ed.s), Descartes' Natural Philosophy, London and New York, Routledge, 2001. For information, go to http://www.routledge.com.

- Clemens Jabloner and Friedrich Stadler (ed.s), Logischer Empirismus und Reine Rechtslehre. Beziehungen zwischen dem Wiener Kreis und der Hans Kelsen-Schule, Vienna, New York: Springer, 2001. For information, go to http://www.springer.at/main/book.jsp?bookID=3-211-83586-5.

- Lorenzo Magnani, Philosophy and Geometry: Theoretical and Historical Issues, Western Ontario Series in Philosophy of Science, Vol 66, Kluwer Academic Publishers, Dordrecht, 2001. For information, go to http://www.wkap.nl/book.htm/1-4020-0241-6.

- Lorenzo Magnani, Abduction, Reason, and Science - Processes of Discovery and Explanation, Kluwer Academic/Plenum Publishers, 2001. For information, contact kluwer@wkap.com

- Laurent Rollet, Henri Poincaré, des Mathématiques à la Philosophie, Lille, Presses Universitaires du Septentrion, 2000.

- Anne-Françoise Schmid, Henri Poincaré, les Sciences et la Philosophie, Paris: L'Harmattan, 2001.

- Friedrich Stadler, Studien zum Wiener Kreis. Ursprung, Entwicklung und Wirkung des Logischen Empirismus im Kontext. Frankfurt: Suhrkamp, 2001. For information, go to http://www.suhrkamp.de/sv/sb/index.htm.

- Jaap van Brakel, Philosophy of Chemistry, Leuven University Press, 2000. For information, go to http://www.kuleuven.ac.be/upers/poc.htm.

- Jules Vuillemin, Mathématiques Pythagoriciennes et Platoniciennes, Albert Blanchard, 2001. For information, go to http://www.blanchard75.fr/htfr/0025.htm.

Electronic Resources.

- Website of the PhilSci Archive, an online preprint exchange for papers in philosophy of science: http://philsci-archive.pitt.edu/. This preprint service is sponsored by PSA and the University of Pittsburgh Center for Philosophy of Science and University Library System.

- Website of the Raymond and Beverly Sackler Archive Resource: http://www.royalsoc.ac.uk/library/index.html (under 'Online catalogues'). The Resource is a biographical database of Fellows of the Royal Society from its inception in 1660 to the present day (excluding the current Fellowship).

- An HPS 'internet tutorial'—part of a Web-based resource for British students and faculty members—is located at http://www.humbul.ac.uk/vts/hps/index.htm.

- An electronic collection of classic French texts in the social sciences is located at http://www.uqac.uquebec.ca/zone30/classiques_des_sciences_sociales/index.html.

- Website of the International Association for the Study of Controversies (IASC): http://spinoza.tau.ac.il/hci/dep/philos/iasc/.

- Website of the RSLP Navigational Aids for the History of Science, Technology and the Environment project: http://www.nahste.ac.uk.

- OPAC for French scholarly libraries: http://www.sudoc.abes.fr.

- Pietro Corsi maintains a website dedicated to the works and heritage of Jean-Baptiste Lamarck, at http://www.lamarck.net.

People

Deaths

- Gerd Buchdahl (1914-2001). Obituary: http://www.hps.cam.ac.uk/news/buchdahl.html.
- Wesley C. Salmon (1925-2001). Obituary: http://www.pitt.edu/~pittcntr/Events/salmon1.htm.
- Herbert A. Simon (1916-2001). Memorial website: http://www.cs.cmu.edu/simon/index.html.
- Jules Vuillemin (1920-2001). Obituary: http://www.liberation.fr/livres/2001janv/1701vuillemin.html. Bibliography: http://www.ac-toulouse.fr/philosophie/phpes/vuillemin.htm.

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Honors

Ian Hacking was awarded an honorary doctorate from UBC (2001) and the Molson Prize in Social Sciences and Humanities from the Canadian Council for the Arts (2000). Hacking was elected to the Collège de France (2000).

Jobs, fellowships, and other opportunities.

- The British Society for the History of Science invites entries for the 2001 Slade Prize for an essay (published or unpublished) making a critical contribution to the history of science. For information, contact the BSHS Secretary, Sally M. Horrocks (smh4@le.ac.uk).
- NSF Program in Science and Technology Studies. For information, go to http://www.nsf.gov/sbe/ses/sts/start.htm.
- ETH Zurich. Professorship for science research, in history and philosophy of science. Applications are due January 31, 2002. For information, contact Sibylle Alder, Admin. Präsidialstab ETHZ (alder@sl.ethz.ch).
- History of Science Society. Society Editor (Isis, Osiris, CB). For information, go to http://depts.washington.edu/hssexec/jobs/hsseditor.html.
- History of Science Society and University of Oklahoma. Bibliographer and Associate Editor of Isis (HSS) and Term Faculty Appointment, Dept of the History of Science (OU). For information, contact Steven J. Livesey (slivesey@ou.edu) or go to http://depts.washington.edu/hssexec/jobs/cb.html.
- Rochester Institute of Technology. Assistant Professor, STS, beginning September, 2002. Applications will be reviewed beginning November 1, 2001. For information, go to http://www.rit.edu/~696www/sts/stshome.html or contact Thomas D. Cornell (tdcgsh@rit.edu).
- Northwestern University—Science in Human Culture Program. Postdoctoral fellowships in science, technology, and medicine studies, beginning September, 2002. Applications are due January 15, 2002. For information, contact Phyllis Siegel (p-siegel@northwestern.edu) or go to http://www2.mmlc.nwu.edu/shc.
- University of Sydney. Lecturer, Unit for History and Philosophy of Science (Ref No: A36/001949). For information, contact Rachel A. Ankeny (r.ankeny@scifac.usyd.edu.au).
- Indiana University, Bloomington, Indiana. Open-rank position in history of biology and/or medicine after 1800 and HPS, beginning fall, 2002. Applications are due December 1, 2001. For information, contact the Dept of History and Philosophy of Science (hpscdept@indiana.edu).
- Pennsylvania State University. Graduate fellowships in the Science, Medicine, and Technology in Culture initiative, beginning fall, 2002. Applications are due January 15, 2002. For information, go to http://faculty.la.psu.edu/ssps/smtc.html.
- Yale University. Assistant or Associate Professor in history of the physical sciences, beginning July, 2002. Applications will be reviewed beginning October 15, 2001. For information, contact Daniel Kevles (daniel.kevles@yale.edu).
- Vrije Universiteit Amsterdam, The Netherlands. Research Trainee and Postdoc Positions in philosophy of science, beginning March, 2002. Applications are due November 24, 2001. For information, contact Henk de Regt (h.w.de.regt@ph.vu.nl) or go to http://www.ph.vu.nl/ondz/vacature.htm.

Journals.

- Science & Education (9/6) November 2000: Constructivism and Science Education. For information, contact Michael Matthews (m.matthews@unsw.edu.au).
- Philosophia Scientiae (5/1): Analyses Historiques et Philosophiques sur les Théories Quantiques. For information, contact éditions Kimé, 2 impasse des Peintres, 75002 Paris.
- International Studies in the Philosophy of Science (15/2) July 2001: selected papers from HOPOS 1998 in Notre Dame. For information, go to http://www.tandf.co.uk/journals.
- Ludus Vitalis is a journal of philosophy of life sciences, edited in Mexico in Spanish, English, and French. For information, go to http://www.ludusvitalis.org.mx.
- Public@tions électroniques de Philosophi@ Scienti@e, a new electronic journal of the Archives H. Poincaré, can be viewed at http://philosophiascientiae.free.fr/index.html.
- Expressions, the journal of the IUFM of Réunion, has a new issue dedicated to the history and philosophy of science. For information, contact Dominique Tournès (tournes@univ-reunion.fr).
- SCIAMVS, Sources and Commentaries in Exact Sciences (2) April, 2001. For information go to http://www.sciamvs.org.

Regional maps of HOPOS activity and infrastructure.

Hungary (No. 6).

Report on HOPOS-related resources in Hungary.

Introduction

Ever since the first king was crowned one thousand years ago, Hungary's long history has been full of difficulties. A lack of stable historical and political conditions over the last five centuries has had conflicting influences on Hungarian intellectual life, and the country's scientific institutions have been regularly unstable or weak. Thus, the first universities in Hungary were established in the 14th century but did not survive historical troubles, and the oldest permanently functioning university was established only in the 17th century. Yet the scientists and thinkers who survived disadvantageous environments became stronger and their thinking flourished. Consider the great number of successful Hungarian scientific emigrés, such as John von Neumann, Leo Szilárd, Edward Teller, Eugene Wigner, John Kemeny, Theodore von Kármán, Dénes Gábor, Michael Polányi , and Imre Lakatos. These intellectuals and scientists were at least partly educated in Hungary, and left to pursue research abroad because of weak institutional and political conditions at home. Their thinking in new environments was often considered strange, unusual, or mysterious—from whence the name 'Martians' for those talented Hungarian immigrants who came to the USA in the 1930s (See George Marx, "The Martians' vision of the future" (http://www.kfki.hu/~tudtor/tudos1/martians.html) or his Voice of the Martians, Akadémiai Kiadó, Budapest, 1997). It is characteristic that, among the dozen of Hungarian Nobel laureate scientists, only one performed his research *in* Hungary.

Such tendencies persist, and intellectual circumstances in present-day Hungary are similar to historic ones. In the last few years, the entire scientific institutional system has been forced to change because of financial difficulties and the ideological constraints of systemic transformation in Eastern Europe. In the process, universities decreased their staff and increased radically the student numbers, several smaller universities and colleges were unified with larger institutions, the Hungarian Academy of Sciences (HAS) network of research institutions was remolded and greatly cut back, and the official system of scientific qualification was overhauled. Many Hungarian scientists now work abroad because of a lack of jobs at home and other disadvantageous conditions. Hopefully these new 'Martians' will also attain great success.

In spite of a tradition of instability and uncertainty, a Hungarian cultural tradition emerged around the sciences—though rather less significantly around philosophy. The most important scientific accomplishments are associated with mathematicians and physicists: János Bolyai (1802-1860) devised the first non-Euclidean and absolute geometry (independently of Lobachevskii, in a small Transylvanian city isolated from the scientific community), Ányos Jedlik (1800-1895) created the first dynamo (electromagnetic generator), and Loránd Eötvös (1848-1919) experimentally demonstrated the equivalence of gravitational and inertial mass of bodies (a crucial element of general relativity). Many Hungarian physicists and mathematicians contributed to the foundations of quantum physics around 1930, John von Neumann (1903-1957) and Eugene Wigner (1902-1995) foremost among them. Dénes Gábor (1900-1979) invented holography. John von Neumann and Pál Erdős (1913-1996) contributed to almost every field of mathematics in the 20th century, and von Neumann also had an important role in constructing the first computers. In medicine, Ignác Semmelweis (1818-1865) devised the first successful treatment of puerperal fever, György Hevesy (1885-1966) first proposed how to apply nuclear isotopes in diagnoses and treatments, György Békésy (1899-1972) contributed fundamentally to the description of the ear, and Albert Szent-Györgyi (1893-1986) isolated vitamin C.

By contrast, there have been very few original philosophical thinkers in Hungary. French, German, and Soviet influences successively dominated Hungarian philosophy for the better part of the 19th and 20th centuries. The first important era of genuinely Hungarian philosophy was created by the decay of the Austro-Hungarian monarchy, around the end of the 19th and beginning of the 20th centuries. In this period several remarkable individual thinkers and intellectual circles entered the stage, such as the young Michael Polányi and Karl Mannheim. Georg Lukács' thinking also took root in this intellectual atmosphere. Original Hungarian philosophy practically started with Lukács—his influence was significant among progressive Hungarian intellectuals (including the young Imre Lakatos), especially after the Second World War and during the formation (and deformation) of socialist-oriented Hungary. A group of younger philosophers around Lukács—Ágnes Heller, György Márkus, Mihály Vajda, Ferenc Fehér—formed a 'Budapest School', which constitutes one of the better-known faces of philosophy in Hungary today.

Recent Hungarian intellectual life has a post-Marxist character that marks philosophical endeavors in particular. After decades of official Marxist ideological dominance, other elements of Western philosophy—including Continental and analytic approaches—now have been widely accepted. Under official Marxist ideology, many problems of philosophy of science were described according to a special terminology as, for example, problems of dialectical or historical materialism. The replacement of official phraseology and its concomitant philosophy of science with Western thinking was a difficult and long process, and state institutions sometimes considered proponents of such change as members of the political opposition or its

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sympathizers. Márta Fehér, Ferenc Altrichter, and László Vekerdi propelled this westernization process beginning in the 1960s and 1970s. In those years, publications from the West appeared in translation, and philosophical seminars, schools, and conferences were organized in this new spirit. Philosophy of science as an accepted discipline appeared in Hungary in the early 1980s, and the first department under this name—the present Department of History and Philosophy of Science at Eötvös University—was established in 1994.

The history of philosophy of science in Hungary goes well beyond the official institutional story. Given the Hungarian cultural and ideological links of philosophers of science such as Michael Polányi, Karl Mannheim, and Imre Lakatos, Hungary's history is no doubt richer in this domain than its current output. In addition, one might mention in this context Georg Lukács (1885-1971) who, though *not* a philosopher of science, nevertheless addresses issues concerning science in his writings. His influence was felt by three generations of Hungarian philosophers, whatever their research area. (Similarities between Polányi and Lukács were apparently discovered in recent years by vandals who destroyed memorial markers on each of their past Budapest dwellings.)

The two most important philosophers of science with Hungarian roots—Polányi (1891-1976) and Lakatos (1922-1974)—emigrated from Hungary as young people (28 and 34 years old) and became well known as philosophers of science in England. Polányi studied medicine, chemistry, and physical chemistry in Hungary (and Germany) and started work as a chemist—a distinctive career choice among his extended circle of relatives and friends engaged in humanities scholarship and progressive social movements. His interest in philosophy of science flourished in England only three decades after emigrating from Hungary. On this basis, it is fair to state that his philosophy of science does not reflect directly on his Hungarian experiences. Moreover, he had no serious relations with Hungarian intellectuals at home, so his ideas were almost unknown there until the 1980s. The Michael Polanyi Liberal Philosophical Association was established in 1991 at the Budapest Technical University (see below) to study and publish his works. The first collection of his papers appeared in Hungarian in 1992; his Personal Knowledge was published in 1994.

Lakatos, for his part, studied mathematics, physics, and philosophy in Debrecen (eastern Hungary). After World War II he sought a double career as scientist and politician in Budapest. During these years, his political activities in the communist movement (which did not preclude his imprisonment by the Stalinists for three years) and scholarly studies (influenced by György Pólya and Georg Lukács) each played apparently minor roles in the path leading to his signal work on mathematics and science in England after 1956. The young Lakatos published about ten short political and philosophical papers and completed his doctoral dissertation in Hungary. His few philosophical papers were written under the influence of Lukács (especially the latter's History and Class Consciousness), practically without any intellectual reflections; intriguingly, his doctoral dissertation was mysteriously lost. His political papers contributed to Party policy hence were considered significant in those times, but when his position in the Party became unstable, this status disappeared. In England, Lakatos developed an anticommunist rhetoric that made his thought unacceptable in official Hungarian philosophical life. His philosophy of mathematics did not appear in Hungary until the late 1970s, and his philosophy of science became well-known in his home country in the early 1980s. Lakatos-related research at present is concentrated mainly in the Eötvös University Department of History and Philosophy of Science. As for their legacies in England, neither Polányi nor Lakatos had Hungarian students. They preserved their early personal Hungarian contacts, however.

Hungarian intellectual life today is not very extensive: only a few people in any given field work at a department or institute. Accordingly, I mention individual working philosophers here by name; my sincere apologies to those whom I may have neglected to mention.

Travel and contact information. Up-to-date information on Hungarian cities, services, addresses, Internet links, and events can be found at http://www.fsz.bme.hu/hungary/homepage.html. Telephone and fax numbers are given here in the format for dialing to Hungary from abroad. The country code (36) is followed by the area code (1, for Budapest) and then the institution's number. When calling within Hungary, dial '06' instead of the country code. When calling a number in the same area it is unnecessary to dial the area code; thus, calling from one Budapest number to another requires dialing only the last 7 digits. Mailing addresses are provided here instead of street addresses.

Academic and Scholarly Institutions.
As with the Hungarian administrative system generally, the academic system is concentrated in Budapest. Additional universities, research groups, and institutes featuring philosophical studies are found in Debrecen, Szeged, Miskolc, and Pécs.[1]

Budapest

Eötvös University (EU)
(Eötvös Loránd Tudományegyetem [ELTE]) H-1364 Budapest Pf. 109 (tel 1-2669833; http://www.elte.hu)
The oldest continuously functioning Hungarian university was founded in 1635 at Nagyszombat (now Trnava in the Slovak Republic) by cardinal Péter Pázmány and moved to the capital at the end of 18th c as the 'Royal Hungarian University of Sciences'. Now named for Loránd Eötvös, the ELTE has faculties, colleges, institutes, and departments in all scientific fields except engineering, medicine, and economics. It is one of the most

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significant centers of scientific research in Hungary.

Department of History and Philosophy of Science (DHPS)
(ELTE Tudománytörténet és Tudományfilozófia Tanszék) H-1518 Budapest Pf. 32 (tel 1-3722924; http://hps.elte.hu)
The DHPS is an important center of HOPOS-related activities in Hungary. A part of the *EU* Faculty of Sciences, the DHPS encompasses 10 instructors, including 7 tenured faculty. DHPS faculty typically have degrees in the sciences and in philosophy—which facilitates the Department's service teaching in HPS for *EU* students in the natural sciences. The DHPS participates in doctoral programs associated with the Faculty of Science and the *BUTE* Departments of Philosophy and History of Science. The main research profile of the DHPS includes history, philosophy, and foundations of science: the chair, George Kampis (gk@hps.elte.hu), works on history and philosophy of biology and general philosophy of science; Miklós Rédei's works on philosophy of physics; Péter Szegedi works on history, philosophy, and sociology of physics; László Ropolyi works on social constructivism, hermeneutics, Lakatos, philosophy of physics, and history of natural philosophy; Gábor Kutrovátz works on history and philosophy of logic, science, and mathematics; and László E. Szabó (also a faculty member in the Department of Theoretical Physics) works on philosophy of physics, problems of space-time, and foundations of quantum theory. In addition, László Székely (a fellow of the *HAS Institute for Philosophical Research*) works with the DHPS and pursues research in history of astronomy and cosmology. The DHPS enjoys extensive Hungarian and international relations.

Institute of Philosophy
(ELTE BTK Filozófia Intézet) H-1364 Budapest Pf. 107 (tel 1-2663769, 1-2664612)
This institute, Hungary's traditional center of philosophical education, comprises departments of general history of philosophy and logic. Teaching in the former is focused on historical approaches to philosophical problems, through continental and analytic orientations. Philosophy of science is a small part of the curriculum, with an emphasis on the social sciences; research in HOPOS-related fields is sporadic. János Kelemen (director) has written on historical problems of relations among philosophy of language and science; Ágnes Erdélyi works on philosophy of social sciences (Dilthey and Weber); and István M. Fehér writes on historical relations between hermeneutics and science. Thirty years ago, György Bence wrote an important dissertation at the Institute on Marxian philosophy of science; at that time it was rejected—and more recently, highly celebrated. By now, though, the field has moved on.

Institute of Philosophy—Department of Logic and Methodology of Science
(ELTE BTK Szimbolikus logika és Tudománymetodológia Tanszék) H-1364 Budapest Pf. 107 (tel 1-2664195; http://www.btk.elte.hu/logikat/magyar/rolunk.html)
The major research areas of this *Institute* department include philosophy of logic and metaphysics. Other areas include philosophy of linguistics, sociology, and economics, philosophy of mathematics, and history of logic (Imre Ruzsa, Anna Madarász, András Máté, and László Pólos); and structuralist philosophy of science (Tibor Szécsényi). Together with the *Alfréd Rényi Institute of Mathematics of the Hungarian Academy of Sciences*, the Department runs the Budapest Postgraduate Logic School. The School curriculum (besides logic courses) includes historical courses on the history and philosophy of logic and mathematics.

Institute of Sociology and Social Policy
(ELTE Szociológiai és Szociálpolitikai Intézet) H-1518 Budapest Pf. 32 (tel 1-2090555; http://www.szoc.elte.hu/default.htm)
Some members of this institute work on philosophical problems of social systems: Anna Wessely works on sociology of knowledge and Mannheim; Nikosz Fokasz works on complexity in social systems; and Péter Somlai and Dénes Némedi have written on history and philosophy of social theories.

Budapest University of Technology and Economics (BUTE)
(Budapesti Műszaki és Gazdaságtudományi Egyetem [BME]) H-1521 Budapest Pf. 91 (tel 1-4631111; http://www.bme.hu/)
The BUTE came into existence when it was split off from the university Pázmány founded in 1635. In 1782 the Institutum Geometricum—the direct predecessor of the BUTE—was established as part of the Royal University's Faculty of Liberal Arts. It is among the first European institutions to train engineers on the university level, and still issues most of Hungary's engineering diplomas. More than 110 departments and institutes now operate within the structure of seven faculties. On campus, there is a statue of Theodore von Kármán, the great applied mathematician and aeronautics engineer.

Department of Philosophy and History of Science
(BME Filozófia és Tudománytörténet Tanszék) H-1111 Budapest Stoczek u. 2-4 (tel 1-4631181; http://phil.philos.bme.hu/)
This department is part of the *BUTE* Faculty of Economic and Social Sciences. Although its main focus is service teaching (including courses in STS and HPS) for *BUTE* engineering undergraduates, the Department also offers programs at the PhD level and (starting in 2002) at the MA level, in collaboration with other departments of the *BUTE* and *EU*. A subgroup—consisting of the chair, Tihamér Margitay (margitay@phil.philos.bme.hu), Márta Fehér, and István Zentai—is active in such fields of research as history of scientific method, 17th c physics, philosophy of 20th c physics and cosmology, 20th c philosophy of science, and sociology of scientific knowledge (SSK) and the Bloorian 'strong program'. Márta Fehér, the former chair, is one of the key founders of Hungarian philosophy of science, and her interests are appropriately

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global in this realm. The DPHS is home to the *Michael Polányi Liberal Philosophical Association (MPLPhA)* and regularly plays host to visiting scholars, who give short courses, lectures, and pursue research. The DPHS cooperates with the *EU DHPS* and *Institute of Philosophy,* and the *HAS Institute for Philosophical Research* to jointly organize workshops, seminars, and colloquia in HPS.

Innovation Studies and History of Technology
(BME Innovációmenedzsment és Technikatörténet Tanszék) H-1111 Budapest Stoczek u. 2-4 (tel 1-4631074; tempus@eik.bme.hu; http://www.bme.hu/)
This newly established department works with the *BUTE DPHS* PhD program and is chaired by Imre Hronszky (hronszky@eik.bme.hu). Research topics include engineering methodology, and history and philosophy of technology and chemistry.

Budapest University of Economic Sciences and Administration (Budapesti Közgazdaságtudományi és Államigazgatási Egyetem)
Department of Philosophy
(Filozófia Tanszék) H-1093 Budapest Fővám tér 8 (tel 1-2188189; http://www.bkae.hu/)
Olga Kiss works on history and philosophy of mathematics and hermeneutics.

Central European University (CEU)
Department of Philosophy
H-1051 Budapest Nádor u. 11 (tel 1-3273806; biberk@ceu.hu; http://www.ceu.hu/phil/)
CEU is an English-language post-graduate institution for the social sciences and humanities, founded and supported mainly by George Soros (other sites are in New York and Warsaw). The current President and Rector of the CEU is Yehuda Elkana, renowned for his work in HPS. The Philosophy Department in Budapest has a PhD program; staff includes Ferenc Huoranszki (metaphysics), Katalin Farkas (epistemology), and visiting professors such as György Márkus and Nenad Miscevic.

Collegium Budapest. Institute for Advanced Study
H-1014 Budapest Szentháromság u. 2 (tel 1-2248300; colbud@colbud.hu; http://www.colbud.hu/main/table.html)
The first Institute for Advanced Study in Central and Eastern Europe was founded in 1991. Every year, 25-30 scholars from the humanities and social and natural sciences are invited for an academic year. Collegium visitors have included Richard Rorty, Yehuda Elkana, Helga Novotny, György Márkus, John Maynard Smith, Thomas Sebeok, and Barry Loewer. Lectures, workshops, and smaller conferences are organized at the Collegium from time to time.

The Invisible College. Budapest
(Láthatatlan Kollégium) H-1364 Budapest 4 Pf. 232 (tel 1-3221325, 1-3217544; icoffice@ella.hu; http://www.invisible.hu/indexe.htm)
This college, established in 1992, offers supplementary education, including tutorials in HPS, to a select group of 60-70 gifted students on the undergraduate and doctoral levels.

Hungarian Academy of Sciences (HAS)
(Magyar Tudományos Akadémia [MTA]) H-1051 Budapest Roosevelt tér 9 (tel 1-4116100; http://www.mta.hu)
Founded in 1825 to advance and organize scientific activity in Hungary, the Academy elects its own members and gives awards and scientific degrees. An administrative apparatus supports a network of research groups and institutes. Although this network was cut back greatly over the last two decades, it still represents a fundamental component of Hungarian science—and includes some HOPOS-related institutes.

Institute for Philosophical Research
(MTA Filozófiai Kutatóintézet) H-1054 Budapest Szemere u. 10 (tel 1-3120243; http://www.philinst.hu/)
This institute—the main research area of which is philosophy of communication (lead by the director, Kristóf Nyíri, and based on ideas of Havelock and Ong)—has 30 research fellows, some of whom work on HPS. Vera Békés works on Polányi and Kuhnian perspectives on the history of linguistics; János Laki works on positivism, hermeneutics, and Kuhn; László Székely works on history and philosophy of cosmology, and hermeneutics and HPS; and Gábor Palló works on the history of Hungarian science. Palló has a rich collection of oral interviews with Hungarian-rooted scientists from all around the world. The institute has created an international virtual university for philosophy (http://www.uniworld.hu) which shares resources with the institute's Hungarian-language Open University (http://nyitottegyetem.philinst.hu/).

Alfréd Rényi Institute of Mathematics
(MTA Rényi Alfréd Matematikai Kutatóintézet) H-1364 Budapest Pf. 127 (tel 1-4838302; math@renyi.hu; http://www.renyi.hu/main.html)
Founded in 1949, this institute comprises 70 members from various fields of mathematics. Its first director, Alfréd Rényi, published a nice collection of Pascal's fictitious letters to Fermat about the fundamental problems of probability. Imre Lakatos was a member of the institute between 1954-56, during which time he translated mathematical books into Hungarian, studied mathematics with other members, and read philosophy of science. Later on, Lakatos' earlier teacher and friend, Árpád Szabó (who passed away in September, 2001), worked here on his conception of the beginning of Greek mathematics. The algebraic logic research group collaborates with the *EU Department of Logic and Methodology of Science* and the *EU DHPS*. István Németi has written on philosophy of science, including its historical aspects.

KFKI Research Institute for Particle and Nuclear Physics Department of Biophysics
(MTA KFKI RMKI Neurobiológia és nukleáris biofizika csoport) H-1525 Budapest Pf. 49 (tel 1-3959220; http://www.rmki.kfki.hu/biofiz/biophysics.html)
While this department focuses on mathematical and computational models of neural structures, Péter Érdi (the department head) works on the broader context of these problems, particularly in philosophy of science.

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HOPOS-related resources in Hungary

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Computer and Automation Research Institute
(MTA Számítástechnikai és Automatizálási Kutató Intézet) H-1518 Budapest Pf. 63 (tel 1-4665644; http://www.sztaki.hu/index.jhtml)
Tibor Vámos (the chair) works on HPS and the social context of knowledge.

Debrecen

University of Debrecen
(Debreceni Egyetem) H-4010 Debrecen Egyetem tér 1 (tel 52-412060; http://www.unideb.hu)
The roots of higher education in Debrecen go back to the 16th century. The Reformed College of Debrecen, founded in 1538, has played a leading role in preserving and developing Hungarian education and culture for much of the time since then. The university was founded in 1912, and a summer school founded in 1927 is still one of the most important institutions for the teaching of Magyar (Hungarian). Now the university complex comprises five university and three college level faculties, and several independent institutes. Imre Lakatos was born in Debrecen and was a student of the university in mathematics, physics, and humanities (1940-1944)., during which time he changed his name (for the first of two times), to avoid the attention of the Nazi-sympathizing regime. Based on his dissertation in 1948 he received a doctorate Sub Laurea Almae Matris from the University.

Institute of Philosophy
(Debreceni Egyetem Filozófiai Intézet) H-4010 Debrecen, Egyetem tér 1 (tel 52-412060 ext 2573; http://www.unideb.hu)
HOPOS-related activity is concentrated in the institute's department of philosophy, where research is pursued in logic, philosophy of logic (Tamás Mihálydeák and János Kovács), and philosophy of science (Tamás Mihálydeák and István Kelemen). The institute has MA and PhD programs and publishes the philosophical periodical, *Care (Gond)*.

Imre Lakatos (1954)

Szeged

University of Szeged
(Szegedi Tudományegyetem) H-6720 Szeged Dugonics tér 13 (tel 62-544001; http://www.u-szeged.hu/)
The predecessor of the university was founded in 1872 at Kolozsvár (now Cluj, in Romania). The university moved to Szeged in 1921 and became a significant center of mathematics and biology research. In 2000, all universities and colleges in the region were merged into one institution, which now has a well organized library (http://www.bibl.u-szeged.hu/).

Department of Philosophy
(Szegedi Tudományegyetem Filozófia Tanszék) H-6722 Szeged Petőfi sgt. 30-34 (tel 62-544179; http://primus.arts.u-szeged.hu/philo/tanszek.htm)
This department, with eighteen lecturers, has a primary research and teaching focus in the history of philosophy. Active scholars in philosophy of science include András Kocsondi (models in sciences) and János I. Tóth (philosophy of biology).

Department of Psychology
(Szegedi Tudományegyetem Pszichológia Tanszék) H-6722 Szeged Petőfi sgt. 30-34 (tel 62-544509; http://www.arts.u-szeged.hu/pszichologia/)
Beyond his central work on cognitive theory and studies of the Hungarian language, Csaba Pléh focuses on the history of psychology and social science.

Miskolc

University of Miskolc
Faculty of Humanities
Department of Philosophy, and Department for the History of Philosophy
(Miskolci Egyetem Bölcsészettudományi Kar Filozófia Tanszék, Filozófiatörténet Tanszék) H-3515 Miskolc Egyetemváros (tel 46-565111 ext 1880; http://www.uni-miskolc.hu/)
Four faculty members and an emeritus professor (László Hársing) work on philosophy of science related topics, including confirmation theory, philosophy of cognitive science, and the work of Lakatos (Gábor Forrai) and Polányi (Tibor Schwendtner).

Pécs

University of Pécs
Faculty of Humanities
Department of Philosophy, and Department for the History of Philosophy
(Pécsi Egyetem Filozófia Tanszék, Filozófiatörténeti Tanszék) H-7624 Pécs Ifjúság u. 6 (tel 72-501515; http://www.btk.pte.hu/tanszekek/filozofia/ism.html)
These departments host an annual conference on works of a significant philosopher, with his or her participation. János Boros (pragmatism) and János Weiss (Frankfurt school) are active in philosophy of science.

PhD Programs in HOPOS-related fields

PhD School in History of Technology and Science at BUTE
(Technika-, és Tudománytörténet doktori (PhD) iskola) http://phil.philos.bme.hu/phd/phd.html
In the BUTE *DPHS*, a PhD program in the history of science and technology (including HPS) features subprograms in history of technology and engineering, history of scientific method, and social history of science. The chair is Márta Fehér (feherm@phil.philos.bme.hu).

HOPOS-related doctoral work is possible, though less common, in the philosophy PhD programs at Eötvös University (Institute of Philosophy), Central European University (Department of Philosophy), and the University of Debrecen (Institute of Philosophy), as well as the EU logic PhD program (Institute of Philosophy, Department of Logic and Methodology of Science) and EU cognitive PhD program (DHPS).

Seminars and Conferences

Philosophy of Science Semi-

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nar of the EU DHPS
(Tudományfilozófiai Szeminárium) H-1117 Budapest Pázmány sétány 1/a Room 6.54 (tel 1-3722924; http://hps.elte.hu/seminar/)
The seminar offers lectures and discussion every week of the semester, in Hungarian or English. For information, contact László E. Szabó (leszabo@hps.elte.hu).

Annual Conferences of Hungarian Cognitivists
MAKOG konferenciák
http://hps.elte.hu/~kampis/MAKOG
Although history is often alien to traditional cognitive science, these annual conferences feature discussions of history of philosophy of science and epistemology at every meeting. Proceedings are published irregularly.

Libraries and Archives

Libraries and archives in Hungary regularly need to address budgetary, technical, and administrative deficits. Collections are frequently incomplete. Electronic catalogues and resources, which have been rudimentary and impoverished for some time, are slowly improving. Librarians, in any case, are familiar with their topic and ready to help. This is a typical Eastern European situation: a sub-optimal system is sustained by extra-human effort, so personal contacts and appearances in the process are important.

Library of the Hungarian Academy of Sciences
(A Magyar Tudományos Akadémia Könyvtára) H-1245 Budapest Pf. 1002 (tel 1-4116100; mtak@vax.mtak.hu; http://w3.mtak.hu)
Founded in 1826, this is one of the largest scientific libraries in the country, with a collection of 2 million items—including the best HPS collection in Hungary. The HAS Library has separate collections of manuscripts (of important Hungarian scholars), antique books, and Oriental materials. One of the most important Hungarian HPS scholars, László Vekerdi, is a librarian here. In the last two decades he published biographies (in Hungarian) of Newton and Galileo; his latest collection is Knowledge and Science (Typotex Kft Elektronikus Kiadó, 1997).

Lukács Archive and Library
(MTA Lukács Archívum és Könyvtár) H-1056 Budapest Belgrád rakpart 2 (tel 1-3182414)
An archive run by the HAS Library in Lukács' last apartment supports research on his philosophy and life. While Lukács did not contribute directly to the philosophy of science, his works contain relevant discussions, and his relations to and influence on Mannheim, Polányi, Lakatos, and other Hungarian thinkers are significant.

Library of the Eötvös University
(ELTE Egyetemi Könyvtár) H-1053 Budapest Ferenciek tere 6 (tel 1-2665866; http://lib.elte.hu/)
This library has a relatively good collection of older books including HOPOS-related fields; in the last decades only its periodicals can be considered up-to-date.

CEU Library
H-1051 Nádor u. 9 (tel 1-3273000; library@ceu.hu; http://www.library.ceu.hu)
The CEU library holds the largest collection of English-language materials in social sciences and humanities in Central and Eastern Europe; they have core and new publications in philosophy, history of philosophy, and philosophy of science.

National Széchényi Library
(Országos Széchényi Könyvtár) H-1827 Budapest Budavári Palota F épület (tel 1-2243700; http://www.oszk.hu/eng/org/index.html)
The national library's collection includes every book (and newspapers and other periodicals) published in Hungary since 1712, and abroad (in Hungarian) since 1601. The many other collections include manuscripts, maps, music, early books, and motion pictures.

Library of the University of Miskolc
(Miskolci Egyetem - Könyvtár, Levéltár, Múzeum) H-3515 Miskolc Egyetemváros (tel 46-361416; http://www.lib.uni-miskolc.hu/lib/)
The Selmec Museum Library (http://www.lib.uni-miskolc.hu/lib/archive/selmec/selmec_e.html)—part of the University of Miskolc library—is the oldest and only intact special technical library in Hungary. The collection has some 45,000 volumes, among which there are many valuable works from the 16th through 19th centuries relevant to history of science. It contains the Annalen der Physik (complete runs from 1790) and Annales des Mines (complete runs from 1794).

Scientific Societies

Hungarian Philosophical Association (HPA)
(Magyar Filozófiai Társaság [MFT]) H-6722 Szeged Petőfi sgt. 30-34 (tel 62-425109; laczkos@bibl.u-szeged.hu; http://hps.elte.hu:8080/indexen.htm)
The HPA, with some 1,000 members, has divisions dedcated to history of philosophy and philosophy of science, and distributes a quarterly newsletter, MFT Hírek. The president is Csaba Pléh (*University of Szeged* and *BUTE*), and the secretary is Sándor Laczkó (*University of Szeged*).

Michael Polányi (about 1910)

Michael Polanyi Liberal Philosophical Association (MPLPhA)
(Polányi Mihály Szabadelvű Filozófiai Társaság) H-1111 Budapest Stoczek u. 2 (tel 1-4631181; polanyi@phil.philos.bme.hu; http://www.kfki.hu/(hu)/~cheminfo/polanyi/index.html)
This association (hosted by the *BUTE DPHS*) deliberates, translates, and publishes Polányi's works in philosophy of science, and organizes international workshops and conferences. For ten years, the MPLPhA has published *POLANYIANA* semi-annually in Hungarian and English. The MPLPhA has regular contacts with the British and US Polányi societies and exchanges material with their periodicals, *Appraisal* and *Tradition and Discovery*.

International Society for Hermeneutics and Science (ISHS), Budapest Center
H-1518 Budapest Pf. 32 (tel 1-3722949; http://hps.elte.hu/ishs/home.htm)
This society is dedicated to

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HOPOS-related resources in Hungary

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the study of the role of hermeneutics in natural sciences. It holds meetings, produces a newsletter and other publications, and has a center as well at SUNY Stony Brook (USA). The Budapest center is managed by Olga Kiss (*Budapest University of Economic Sciences and Administration, Department of Philosophy;* kissolga@freemail.hu) and László Ropolyi (*EU DHPS;* ropolyi@hps.elte.hu).

Hungarian Division of IUHPS/DLMPS
Az IUHPS/DLMPS Magyar Nemzeti Bizottsága
H-1117 Budapest Pázmány sétány 1/a (tel 1-3722924; http://hps.elte.hu/dlmps/index.html)
This division supports HOPOS-related activities within a limited framework. The president is George Kampis (*EU DHPS,* gk@hps.elte.hu), and the secretary is Gábor Forrai (*University of Miskolc,* forrai@isis.elte.hu).

International Society for the Interdisciplinary Study of Symmetry (ISIS-Symmetry)
H-1245 Budapest Pf. 994 (tel 1-3318326; sym@freemail.hu, http://isis-symmetry.org/)
ISIS-Symmetry was formed in Budapest in 1989 as a society dedicated to studies of symmetry and related concepts in science, art, and technology. The International Symmetry Foundation and Institute of Symmetrion and a specialised library (the Symmetrotheca) are affiliated entities. The society publishes a quarterly journal called *SYMMETRY: Culture and Science*. The secretary (and institute director) is György Darvas (h492dar@ella.hu), who is also active in more traditional philosophy of science.

ELMOHA (Theory-Model-Tradition) Circle
ELMOHA (Elmélet-modell-hagyomány) kör (Budapest)
This informal, unofficial society of scientists, philosophers, and philosophers of science was formed by Péter Érdi (*HAS*; erdi@rmki.kfki.hu) and János Tóth (*BUTE;* jtoth@math.bme.hu), and now has some 20 fellows. Over the last ten years, the circle has hosted lectures and discussions on current intellectual, cultural, ideological, and philosophical developments. Philosophy of science generally provides a common language for these discussions, which are frequent sources for books, papers, and university courses.

Museums

Museology exists at a relatively low level in Hungary. There are good museums in the arts but not in science and technology, where collections are neither rich nor complete, and not well-treated. Museum buildings are frequently unfit for exhibitions. In short, the high level of Hungarian science is poorly related by the nation's museums.

Hungarian Natural History Museum
(Magyar Természettudományi Múzeum) H-1083 Budapest Ludovika tér 6 (tel 1-2101085; http://www.nhmus.hu/e_index.html)
The Hungarian Natural History Museum is the largest of its kind in Hungary, including departments of Zoology, Mineralogy and Petrology, Anthropology, Botany, Geology and Palaeontology, and Education. A predecessor institution was established in 1802; the museum was set up in its present form in 1933.

Semmelweis Medical Historical Museum, Library, and Archives
(Semmelweis Orvostörténeti Múzeum, Könyvtár és Levéltár) H-1013 Budapest Apród u. 1-3 (tel 1-3753533)
Founded in 1951, this library has a rich collection of books and periodicals.

National Museum for Science and Technology
(Országos Műszaki Múzeum) H-1519 Budapest Pf. 311 (tel 1-2044095; http://www.omm.hu/)
This collection, founded 1954, is good but lacks sufficient exhibition space. The former director, Ferenc Szabadváry, was an excellent historian of chemistry; the present director, Éva Vámos, works on traditional and feminist approaches to history of science.

Hungarian Chemistry Museum
(Magyar Vegyészeti Múzeum) H-8081 Várpalota Thury-vár Pf. 39 (tel 88-472391; vegymuz@ax.hu; http://www.kfki.hu/~cheminfo/hun/mvm/mvm1e.html)
Founded in 1961, the museum is in a medieval fortress that stands on the central square of the town of Várpalota. The focus of the museum Hungarian chemistry—its artifacts and its educational and industrial facets. The collection includes 8,100 pieces, 37,200 historical documents, and 8,700 photo negatives; the library contains over 16,500 volumes.

Journals

No Hungarian journal is dedicated to philosophy of science. About 20-30 percent of published papers are translations from English, German, and French; some journals also publish special issues featuring English translations of selected papers.

Hungarian Philosophical Review
(Magyar Filozófiai Szemle) H-1054 Budapest Szemere u. 10 (tel 1-3115443; http://www.c3.hu/~mfsz/)
Editors: Kornél Steiger, Ferenc L. Lendvai (bollelfe@gold.uni-miskolc.hu), László Áron (aron@ludens.elte.hu). This bimonthly journal of the HAS Philosophical Committee is published in Hungarian by the *Áron Kiadó*.

Replika
H-1276 Budapest Pf. 129 (tel 1-3119121; replika@c3.hu; http://www.replika.c3.hu/)
Editor: Miklós Hadas. This social science quarterly is devoted to debate and dialogue among the social sciences and humanities. Replika publishes English language issues every year and frequently features papers on philosophy of science.

BUKSZ - Budapest Review of Books
(BUKSZ - Budapesti Könyvszemle) H-1126 Budapest Németvölgyi út 6. III/2 (tel 1-2122827, 1-2143770; buksz@c3.hu; http://buksz.c3.hu, http://books.c3.hu)
Editor: Gábor Pajkossy. This quarterly, founded in 1989, combines lively criticism with an open spirit of inquiry concerning the social sciences and humanities. The journal (which has an English edition) occasionally features reviews and debates regarding HPS.

World of Nature
(Természet Világa) H-1444 Budapest 8 Pf. 256 (tel 1-

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3187506; termvil@mail.datanet.hu; http://www.kfki.hu/~cheminfo/TermVil/)
Editor: Gyula Staar. This monthly journal, founded in 1869, is devoted to public understanding of science and the scientific worldview. Papers on history of the natural sciences and mathematics appear regularly, sometimes with philosophical analyses. Some issues appear in English as well.

Care
(Gond) H-4010 Debrecen Egyetem tér 1. Pf. 11 (tel 52-316666; http://www.c3.hu/~gond/)
Editor: Mihály Vajda. This philosophical quarterly, housed at the University of Debrecen Institute of Philosophy, features essays in the continental tradition, occasionally on methodological and scientific problems.

Our Age
(Korunk) CP 273, 3400 Cluj, Romania (tel +40-64-432154; korunk@mail.dntcj.ro; http://www.hhrf.org/korunk/index.htm)
Editors: Lajos Kántor, Andor Horváth, Szilárd Demeter. This monthly, published in Hungarian in Kolozsvár (Cluj, Romania), is an important element of Hungarian culture in Transylvania, and occasionally features articles on historical and philosophical aspects of science and scientific culture.

Hungarian Science
(Magyar Tudomány) H-1051 Budapest Nádor u. 7 (tel 1-3179524; matud@helka.iif.hu; http://www.matud.iif.hu)
Editor: Vilmos Csányi. This journal was established in 1840 as a bulletin of the *HAS;* after 1956 it focused on the public life of the Hungarian scientific community. The journal reports on scientific problems and literature, public debates, and methodological questions.

Vulgo
H-4010 Debrecen Pf. 34 (tel 52-530355; vulgo@elender.hu; http://www.extra.hu/vulgo/)
Edited by the HAS Vulgus Research Group (Gábor Gulyás, Tibor Sutyák, Mihály Vajda, Tamás Valastyán) at the *University of Debrecen*, this philosophical journal publishes five times a year.

Publishers

Atlantisz Könyvkiadó
H-1364 Budapest Pf. 287 (tel 1-2663870; atlantis@c3.hu; http://www.c3.hu/~atlantis/)
This publisher has released works in intellectual history and philosophy and methodology of history, including works of Polányi, Mannheim, and Lakatos.

Akadémiai Kiadó
H-1519 Budapest Pf. 245 (tel 1-4648252; custservice@akkrt.hu; http://www.akkrt.hu)
This publisher was once the official publishing house of the *HAS* but that relationship has become weaker; they continue to publish most academic journals and many scientific books.

Jelenkor Kiadó
H-7621 Pécs Munkácsy Mihály u. 30/A (tel 72-314782, 72-335767; jelenkor@mail.datanet.hu)
H-1081 Budapest Rákóczi út 59. II. 9 (tel 1-3133804; jelenkor@freemail.c3.hu; http://www.jelenkor.com)
This publisher, founded in 1993, has released works in continental philosophy and pragmatism, and produces a cultural quarterly, *Magyar Lettre Internationale*.

Osiris Kiadó
H-1053 Budapest Egyetem tér 5 II/10 (tel 1-2666560; kiado@osiriskiado.hu; http://www.osiriskiado.hu)
This publisher releases primarily translations, including a Library of Philosophy featuring dozens of items.

Typotex Kft
H-1024 Budapest Retek u. 33-35 (tel 1-3163759, 1-3162473; info@typotex.hu; http://www.typotex.hu)
This publisher focuses on the natural sciences, mathematics, and related fields, including HPS. Recently, they published Hungarian translations of Lakatos' Proofs and Refutations, and the Sokal-Bricmont volume; a new series on the history of natural philosophy is forthcoming.

Áron Kiadó
H-1447 Budapest Pf. 487 (tel 1-3131793; http://isis.elte.hu/~aron/kiado.htm)
This very small publisher is rather active in philosophy, including philosophy of science. Their list includes German and English books and the *Hungarian Philosophical Review*.

Electronic Catalogue of Hungarian Publishers
(Magyar Könyvkiadók elektronikus katalógusa)
http://www.bibl.u-szeged.hu/mke_eksz/links/kiadok.html
This catalogue is mostly in Hungarian.

Bookstores

Most significant publishers have their own bookstores, often with customer-friendly services.

Atlantisz Book Island
(Atlantisz Könyvsziget)
H-1052 Budapest Pesti Barnabás u. 1 (atlbook@c3.hu; http://www.c3.hu/~atlantis/)
This is one of the fastest and least expensive book-importers in Hungary.

Osiris Kiadó - Osiris Könyvesház
H-1053 Budapest Veres Páln éu. 4-6 (tel 1-266-4999; konyveshaz@osiriskiado.hu; http://www.osiriskiado.hu)
This bookstore has a good selection in the social sciences and humanities, and offers discounts for students and educators.

CEU Academic Bookstore
H-1051 Budapest Nádor utca 9 (tel 1-3273096; bookshop@ceu.hu; http://www.bestsellers.hu)
This bookstore serves the university community and other educational institutions in the area, and is open to the general public. It has the most extensive range of English language academic books available anywhere in Budapest.

Second-hand bookshops in Budapest
Gábor Bálint has an excellent website (in Hungarian) on the used and antiquarian bookshops of Budapest. The site, called 'Antikváriumok Budapesten', can be seen at http://isis.elte.hu/~balint/ant.htm. These second-hand bookshops have relatively rich collections in HPS (in German and Hungarian):

Budai Krónika Antikvárium
H-1012 Budapest Várfok u. 8 (tel 1-2121899)

Ex Libris Antikvárium
H-1054 Budapest Kálmán Imre u. 16 (tel 1-3319571)

Központi Antikvárium
H-1053 Budapest Múzeum krt. 13-15 (tel 1-3173514; rarebooks@mail.matav.hu)

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Novotny Antikvárium
H-1136 Budapest Balzac u. 15 (tel 1-3408016)

Rhythm 'N' Books (books in English)
H-1053 Budapest Szerb u. 21-23 (tel 1-2669833 ext 2226)

Electronic Resources

Hungarian Electronic Library
Magyar Elektronikus Könyvtár (MEK)
info@mek.oszk.hu; http://www.mek.iif.hu/oszkcim.html
The Hungarian Electronic Library aims to be the central collection of public domain Hungarian educational, research, and cultural e-texts. It is under construction and at present contains a few thousand items.

Hungarian Online Librarian
(MIT-HOL? Magyar Internetes Tájékoztatás)
http://mit-hol.oszk.hu/
Librarians participating in this online reference service receive questions by e-mail and respond after several hours, or in the worst case, within two working days.

Hungarian Philosophical Collection
(A magyar nyelvű Filozófiai irodalom adatbázisa)
http://www.arts.u-szeged.hu/doktar/dtar/filo.html
This is an incomplete but useful database of Hungarian philosophy-related texts.

ChemoNet
(ChemoNet Informatikai Alapítvány)
http://www.kfki.hu/~cheminfo/menu/index1.htm
Chemonet is a forum for Hungarian chemists and students. The site features links to Hungarian research sites and universities (particularly related to chemistry) and an electronic directory that may be useful for HOPOS researchers. Here, too, one can find the contents of the Hungarian Journal of Chemistry and Chemical Communications, abstracts of doctoral theses, synopses of inaugural lectures at the HAS, and articles from Polanyiana. One may also visit virtual 'rooms' at the *Hungarian Chemistry Museum,* peruse Hungarian translations of classic scientific papers, and view a collection of Hungarian documents on natural science and its history (see below).

Documents on natural science and history of science in Hungary
(Magyar természettudományi és tudománytörténeti dokumentumok)
http://www.kfki.hu/~tudtor/
This collection of papers and other documents concerning Hungarian science, maintained by the ChemoNet collective, consists of some one hundred scientific papers from the 19th and 20th centuries. Most are in Hungarian, with a select few in English.

Research Funding Agencies

Research funding is based principally on direct or indirect redistribution of governmental monies, distributed by state agencies and scientific committees. Recent financial support for scientific research in Hungary has been less than one percent of GDP, which is low compared to European standards. The position of HPS in the funding system is worse than the average. Private funding activity practically does not exist in the country; one exception was the important activities of the Soros Foundation in earlier decades. International funding agencies, such as the IIE and British Council offer restricted programs for Hungarian scientists, and over the last two years, European Union resources became more available for Hungarians (though this is currently in the beginning stages).

Hungarian Scientific Research Fund
(Országos Tudományos Kutatási Alapprogramok [OTKA]) H-1087 Budapest Könyves Kálmán krt. 48-52 (tel 1-2100167; otka@ella.hu; http://www.otka.hu/)
This is the principal funding agency in Hungary for the support of basic scientific research. It receives a distinct piece of the national budget, and independently elected boards and committees decide on the distribution of funds among applicants. The Fund covers every scientific discipline and has a program for young scholars.

Pro Renovanda Cultura Hungariae Fund
(Pro Renovanda Cultura Hungariae Alapítvány) H-1146 Budapest Ajtósi Dürer sor 19-21 (tel 1-3433913; http://www.prof.iif.hu/prc/)
This small but active fund supports a renaissance of Hungarian culture and supports a science-in-teaching project that includes HPS-related topics in its scope.

Soros Foundation Hungary
(Soros Alapítvány) 1525 Budapest, Pf. 34 (tel 1-3150303; info@soros.hu; http://www.soros.hu/)
The Soros Foundation has had an extraordinary role in the survival of Hungarian scientific research during the last two decades of financial and ideological crisis. Its programmes ensured survival for many scientists and scientific institutions. At present, the Foundation does not support scientific research.

Ministry of Education
Oktatási Minisztérium
H-1884 Budapest Pf. 1 (tel 1-4737000; http://www.om.hu)
The Education Ministry occasionally promotes special projects, such as research on national cultural heritage, for which relatively high support may be awarded.

*

The prospect of joining the European Union has great significance for Hungary. In the past, only a few outstanding representatives of Hungary were able to work at the highest levels of European achievement. Now the entire Hungarian nation will return to the family of Europe, further integrating Hungarian science, historical research, and philosophical studies with those of its European counterparts and so helping all to flourish. Hopefully this increase in quantity will be matched by the quality of Hungarian contributions to HOPOS-related studies in the European context and beyond.

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Notes

1. For further information on Hungarian academia, see I. Végvári, 'Hungary', *Encyclopedia of Higher Education* (Burton R. Clark and Guy R. Neave, eds., Pergamon Press, 1992); Gábor Halász, 'Hungary', *International Higher Education. An Encyclopedia* (Philip G. Altbach, ed., Garland Publishing Inc, 1991); and Gabriella Ujlaki, 'Report: After Twenty Years Philosophy of Science in Hungary' *Journal for General Philosophy of Science*, *25*, 157-175, 1994.

Book Reviews

August Comte and Positivism: The Essential Writings

Gertrude Lenzer. Second Edition. IX + 4XXpp. New Brunswick, NJ, London: Transaction Publishers 1997. $29.95.

The difficult task of reintegrating Comte with the mainstream of intellectual history informs Lenzer's collection of Comte's most prominent writings. The project is not new: the first edition of this collection was published in 1975. We find here extended excerpts from the Cours de Philosophie Positive (1830-42) and Système de Politique Positive (1851-1854)—both recognized in 1856 by Comte as his most important completed writings. There are also two early essays: "Separation of Opinions from Aspirations" (1819), and "Plan of the Scientific Operations Necessary for Reorganizing Society" (1822). The latter is commonly recognized as anticipating Comte's important later developments, the law of three stages and the classification of the sciences. The new edition includes as well Comte's "Conclusion of the Whole Work of the System of Positive Polity", and a new introduction and postscript by the editor.

Most Comte scholars address the problem of widespread neglect of their subject (Gouhier 1987, Grange 1996, Muglioni 1995, Scharff 1995). Lenzer's makes the case for Comte in her introductions to the first and second editions and the postscript. Her arguments are vague and uncompelling—her case for a revival of Comte studies rests on commonplaces like this: "...an awareness of Comte is essential to our recovering an important part of a historical dimension.... It is necessary to reconstruct our filiation with the past which… continues to work in the present.…Only in this way can... the modern scientific enterprise be put into proper perspective" (xxxvi) . Surprisingly, she neglects helpful arguments, such as Scharff proposes (1995).

Lenzer correctly recognizes another notorious problem of Comte scholarship, the problem of the unity between the Cours and Système. The former elaborates the theory of positive sciences (their three-stage development and classification), while the latter addresses political and social reorganization and the much ridiculed 'Positive Religion'. Lenzer tries to bridge this gap as follows. In his early "Plan of Scientific Operations..." ideas of his later work are traced—most significantly the distinction between positive science and positive politics. Then, Lenzer claims, Comte was taken with the idea that social order and progress is only possible when the conceptual system is fully developed—which in turn is only possible in the form of positive science, and which his Cours was intended to accomplish. Once conceptual foundations of progress are established, the rules of social reorganization can be elaborated—the task Comte sets out for himself in Système. This is an acceptable account of Comte's writings, and well justifies why such important works as Discours sur l'esprit positif (1844), or Synthèse subjective (1856) find no place in this collection.

Lenzer, however, does not even try to spell out the principle underlying her selections of the excerpts from Cours and Système. Moreover, none of the texts are cited in full without unexpected editorial cuts. Further, I see no point in reprinting the late 19th c translations. Lenzer is apparently aware of this last problem—except for one footnote in the introduction, the translation is not discussed in the anthology.

Another problem is the intended audience for the book. Is it supposed to be read by students? The editor's texts do not help introduce Comte's thought: there is no guide to the successive development of his ideas, no biography, and no account of his influence. Moreover, the index at the end of the book omits some of Comte's most important terms, such as 'altruism', 'fact', 'empiricism', 'harmony', and 'table of fifteen universal laws'.

Lenzer includes two bibliographies—one up through the first edition, and a second covering sources appearing since then. Important works are missing from both, including, for instance, Brewster's review (1838) of the Cours, which lent Comte his popularity in the English-speaking world. In addition, central works of G. Ficquelmont, L. Lévy-Bruhl, E. Littré, M. Pickering, W. Schmaus, W. Whewell, and F. Wilson are absent; the latest book on Comte by Gouhier (1987)—one of the most prominent Comte scholars—is not found here. A better bibliography can be found in Grange's volume (1996).

Unfortunately, Lenzer's intentions to get scholars back to reading Comte—with which many readers, including myself, strongly sympathize—are underserved by the editorial work in this collection.

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References

Brewster, D., (1838) 'Review of *Cours de Philosophie Positive*', Edinburgh Review 67.

Gouhier, H., (1987), La Philosophie d'Auguste Comte, Esquisses, Paris: J. Vrin.

Grange, J., (1996), La Philosophie d'Auguste Comte, Paris: PUF.

Muglioni, J., (1995), Auguste Comte, Paris: Kimé.

Scharff, R., (1995), Comte After Positivism, Cambridge: CUP.

The Advancement of Science and Its Burdens, with a new Introduction.

Gerald Holton, XXX pp. Cambridge, MA: Harvard University Press, 1998 $20.50.

Holton's collection of essays—including six on Einstein, three on 20th c physics, and five on the state of science education and public attitudes towards science—is reissued here with a long introductory essay, "Einstein and the Cultural Roots of Modern Science".

Holton's Oersted lecture "The Two Maps", is among those reprinted here.[1] Holton accepts a strong version of the thesis that *Naturphilosophie* positively influenced

Review of Holton

not only Oersted, but also Ampère, Faraday, and Mayer (21, 198). This thesis is very solid for Oersted and eminently defensible for Faraday and Ampere though a number of writers over the last two decades have contested it. The materialist and positivist dismissal of *Naturphilosophie* from 1848 through the mid-20th c was replaced in the 1960s by the claim that Oersted (according to Stauffer) and Faraday (according to Pearce Williams) were impacted by German transcendental thought.

Hans Christian Oersted

In Oersted's case this was quite direct, as a student of Fichte and correspondent of Schelling. Faraday's case was more conjectural. Pearce Williams famously argued that Faraday absorbed transcendentalism from Humphry Davy, who in turn absorbed it from his close friend and eloquent conversationalist Coleridge, who introduced ideas of Kant and Schelling to England. This was sometimes plagiarism by Coleridge but even if the relevant passages in Coleridge are accorded the worst interpretation, it does not undermine the thesis about the transfer of ideas—whomever their author was.

During the 1970s and 1980s, Williams' thesis was questioned by a number of historians. Yehuda Elkana and others questioned Davy's roots in *Naturphilosophie*. Timothy Shanahan, in the most extreme case, questioned even Oersted's exposure to and use of terminology of the *Naturphilosophen*. Despite this revisionism, Holton remains sympathetic to the claim of their strong influence by German romanticism. More recently Kenneth L. Caneva devoted the last chapter of Robert Mayer and the Discovery of Conservation of Energy (Princeton, 1993) to disproving the influence (conjectured by Thomas Kuhn) of *Naturphilosophie* on Robert Mayer.

Holton's new introductory essay goes further than his own earlier works to document the extent that Einstein was a product of the traditional German humanistic *Bildung*. Einstein's "Olympia Academy" of fellow bohemians read not only Mach, Poincare, Hume, Spinoza and Mill, but also Sophocles, Racine, Cervantes and Dickens (xxvii). Einstein owned two sets of Goethe's collected works as well as three other separate volumes. Holton argues persuasively that Goethe's emphasis on the unity and interconnection of all parts of nature had a powerful impact on Einstein's thought (xxxv-xlii). This serves to place Einstein even closer to the German tradition, including the less irrationalist currents on the cusp between Enlightenment and Romanicism—Kant, Goethe, Schiller, and Alexander von Humboldt.

Holton's view of scientific theories—in terms of 'thematic presuppositions'—resembles Kuhn's notions of ideals of theory and method. Yet Holton implicitly distances himself from notions of incommensurability and radical discontinuity of science, without mentioning Kuhn by name (177), and explicitly rebukes him for denying that major scientific theory changes bring us closer to the truth (227).

Holton's combination of knowledge of physics, historical care, and sensitivity to the cultural dimensions of science makes him an admirable commentator on cultural contexts of science, past and present. His liberal impulses and commitment to democracy, science education, and the growth of science lead him to a pessimism about popular attitudes toward science and science education. Ironically, he has aligned himself in the 'science wars' with fellow physicists who dismiss out of hand the sort of cultural account of scientific theories at which Holton excels—fearing that attention to cultural dimensions of science may lessen scientific objectivity.

It is ironic that in a work by a physicist dedicated to the unity of the sciences and the humanities, the one set of equations that appears in the book (Maxwell's equations) was misprinted in the reviewers's copies. The error has been corrected, however, for copies distributed to libraries and bookstores.

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Notes

1. One section of that lecture, "The Invisibility of Oersted", contributed to an English translation of Oersted's works, via the inspiration of Yoyo Jones (see Selected Scientific Works of Hans Christian Oersted, trans. and ed. by Karen Jelved, Andrew D. Jackson and Ole Knudson, intro. by Andrew D. Wilson, Princeton, 1998).

Darwinism in Philosophy, Social Science and Policy.

Alexander Rosenberg. 257 pp. Cambridge: Cambridge University Press 2000 $19.95.

Evolutionary thinking in philosophy and social science has been resurgent for at least two decades. In a close and concise analysis, Alexander Rosenberg touches upon key elements of that trend and their theoretical and policy implications. The first part of his book discusses epistemological strengths and weaknesses of biological theory—in particular, implications of naturalism for scientific knowledge. His conclusions from this section guide the second part, which addresses ethical issues conceived within an evolutionary framework. Rosenberg ends by venturing into economics and social

and scientific policy. An alternate title of Rosenberg's book could be The Limits of Biological Theory, given his arguments for the existence of constraints on generality in biology itself, and limits on applying evolutionary logic to political and ethical philosophy and economic theory.

Rosenberg's discussion is pellucidly argued yet marred by being neither extensive nor historically deep. While the range of discussion must be limited to a few theorists within a few disciplines, the failure of the specific theories he discusses does not ensure the failure of *all* such evolutionary thinking. Further, Rosenberg presents his analyses in a state of suspension from historical debate—his findings are decontextualized, unrelated to the long lineage of intellectual problems to which they are heir.

Epistemology

Rosenberg offers a 'field guide' to naturalism's recent proponents, delineating their successes and failures as he sketches out his own version of the epistemology it entails. He stresses the affinity between naturalism and Darwinism, on the grounds that the latter has the 'most direct relevance for the human condition, human behavior, and its cognitive causes (of) any well-established scientific theory' (8). However, biological theory imposes important constraints on naturalism. Biology cannot generate exceptionless generalizations because it is concerned with selected effects or functions; consequently, its generalizations are weak and not, strictly speaking, laws. The only candidates for such laws are those of natural selection—and these are more properly 'models of varying degrees of accuracy for limited ranges of phenomena' (66). Biology is not, however, 'merely' a historical discipline because its main principles posit a mechanism that operates across all places and times. The abstract principle of natural selection yields detailed descriptions of variation and selection that make '*the rest* of biology implicitly historical' (70).

Elsewhere, however, Rosenberg notes that biological theory is 'not a body of laws, but primarily *a set of patterns of argument*, patterns warranted by their usefulness in particular problems at a particular stage of biological development' (1989, 261; emphasis mine). Such patterns cannot be but historical. Patterns and their usefulness emerge and change over time and so philosophers of biology also need to be historians. Rosenberg ignores this historical view, proposing instead that biology's metaphors and models are uniquely constrained by human 'cognitive and computational limitations' (115). While he can see the supercession of heuristic metaphors in other sciences, he does not entertain such a possibility in biology. Even if we disregard the arbitrary assignment of cognitive limits to biology (and not physics or chemistry), though, there is no particular reason why biology should not be subject to transformation. Rosenberg suggests that the metaphors of earlier biology were 'extirpated' by molecular biology (96)—and offers no argument for the fixity of biological science going forward.

Economics and policy

The separation of biology from other natural sciences extends in the 'other' direction to social science. Rosenberg is adamant that the principle of natural selection cannot illuminate economic theory in any way. This is primarily because evolutionary theory is not strongly predictive (due to the limits of its generalizations) whereas prediction is required by economics. This argument, however, can be countered by Rosenberg's own logic: If predictive modesty has not prevented biology from being a success, it may be that evolutionary economics will feature no excessive pretensions to prediction but nonetheless will be endowed with problem solving capacities. In the same way that biology differs from other natural sciences, so might the social sciences.

Nelson and Winter's (1982) account of evolutionary economics is the one Rosenberg dissects in the greatest detail, using it to illustrate all his arguments about why evolutionary economics will fail: weak prediction, superfluous evolutionary metaphor, the violation of levels of interaction and evolution (for example, firms are the equivalents of both organism and species lineage), and a 'surrender' to a non-Darwinian Lamarckian process 'in which anything can evolve into anything by any means' (192). Any revision he can envisage is only of a metaphoric nature, and— interesting and stimulating as Rosenberg believes metaphor to be—he insists the real issue is empirical confirmation, which is not forthcoming. There are, however, several streams of evolutionary economics and, contrary to Rosenberg's claim, some such economists are as concerned with confirmation and disconfirmation as he wishes them to be. More importantly, social scientific evolutionary theory is neither compelled to be justified by biology nor to be simply analogous to it. Metaphoric purity is not what drives evolutionary economics (or evolutionary ethics, for that matter): the quest for better explanations does. The instrumental value of selectionism for social understanding cannot be ruled out by shortfalls calculated on the basis of adherence to a biological model.

Rosenberg's general objection here is to 'instantiating a theory from one domain (to) another quite different one' (172). He is only upset, however, when such transfers occur from the biological to the social. The other way around does not seem to disturb his sense of propriety: he notes the positive influence of Smith's and Malthus' social concepts on Darwin and biological thought. Further, Rosenberg makes no mention of the *transformation* of Malthus' core notion of struggle—or, indeed, of the social practice of selection—as these pivotal ideas were incorporated into Darwin's account of natural selection.

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One alternative Darwinist approach to social science is

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promoted by David Hull. In his work on science as a selection process he argues for *parallel* selection processes in the realm of scientific theory that are not merely analogous to biological processes. Rather than tying the development and career of theories to individual cognition, Hull locates the mechanisms for scientific and conceptual success in social processes (1988). This necessitates tracing lineages of thinkers, the institutional networks in which they operate, and the relationships of checking and credit that exist between scientists and their research groups.

Interestingly, Rosenberg elsewhere lauds Hull for being 'at the forefront of attempts to provide biological explanations for the character of scientific theories we accept and transmit' (1989, 262). Yet this is a mistaken characterization of Hull's account of the differential success of scientific success, and illustrates Rosenberg's unwillingness to separate 'evolutionary' from 'biology'. What distinguishes their views, first and foremost, is the role they accord to history and communities of thinkers in accounting for the success of theories. Rosenberg's is a fundamentally biological approach, with philosophy filling in the gaps; Hull's is a historical one, in which the success or failure of scientific understanding is part of a socially mediated process of selection. Accounts of Darwinism in social science need not be limited to the narrow inquiry Rosenberg offers—a philosopher of biology's social science, in lieu of a philosophical *and* historical analysis.

Why does Rosenberg eschew history? Is it because, as he says about Laudan and Kitcher's disagreements over realism, 'history....lacks a metric to measure predictive success and successful reference, and an agreed catalogue of test cases' (25)? If biologists felt the same way, they might concede that fitness claims are tautologous and give up the theory that leads them to make such claims. Looking for independent criteria to establish success would seem to be a critical goal of any analysis of biological or theoretical evolution but Rosenberg's purely philosophical critique of evolutionary thinking foregoes this instrumental potential. His analyses thus fail to reconstruct our historically rooted understandings—though he has made many other points here, on evolutionary patterns in social and philosophical domains, with great clarity and subtlety.

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References

Hull, David, (1988), Science as a Process, Chicago: University of Chicago Press.

Rosenberg, Alexander, (1989), "From reductionism to instrumentalism?", 245-262, in Ruse (1989).

Ruse, Michael (ed.), (1989), What the Philosophy of Biology Is, Dordrecht: Kluwer Academic.

Measurement in Psychology: A Critical History of a Methodological Concept.

Joel Michell, xvi + 246 pp. Cambridge: Cambridge University Press 1999 $59.95.

The adequate measurement of behavior continues to be a key problem for psychology. The administration of tests to measure some attribute—say, intelligence—is even a stereotypical view of what all psychologists do. For scores of psychologists, measurement is a fundamental tool of the trade. However, according to Joel Michell, psychologists have adopted a flawed definition of measurement, one that is at odds with the understanding of measurement held by most scientists. How could psychologists accept and sustain a faulty definition of measurement for almost 50 years? Michell attempts to answer this question by offering a history of the concept of measurement and an appraisal of S. S. Stevens' definition of measurement and psychology's wholesale adoption of that definition.

The development of the idea that thinking and behavior are measurable can be traced to four specific events. The first was the study of psychophysics and publication in 1860 of Gustav Theodor Fechner's Elemente der Psychophysik. The second was the development of methods to measure individual differences in reaction times; F. C. Donders employed such methods to measure the duration of particular mental events. The third involved the quantitative measurement of learning and remembering by Hermann Ebbinghaus (who, in 1885, commenced his research on memory). The fourth involved measurement of individual differences in intelligence. In 1869, Francis Galton (Darwin's cousin) published Hereditary Genius, in which he proposed the inheritance of mental traits—and this work inspired Charles Spearman to set about relating mental tests to mental abilities. Around the same time, Alfred Binet began work on testing the intelligence of French school children.

By this point, the natural sciences had been successfully measuring all manner of phenomena for centuries. Given the success of the natural sciences, psychology tended to model its methods for measuring mental and behavioral phenomena accordingly. Yet psychological measurement—whether of intelligence, motivation, or other attributes—was, and remains, controversial in ways that are special to psychology, particularly as regards the validity of tests of their culturally sensitivity. Michell's focus, however, is the more fundamental topic of the concept of measurement itself in psychology as compared with such concepts in the natural sciences.

The history of the concept in psychology is of great importance, for Stevens laid out a view still embraced by most psychologists: "Measurement is the assignment of numerals to objects or events according to rule" (as cited in Michell, 15). Variants of this definition may be found in most

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psychology texts to this day. By contrast, the traditional view of measurement understood by most scientists is the estimation of the ratio of a magnitude of a quantity to a unit of the same quantity. Any measurable attribute is quantitative because it can maintain ratios. Michell points out that in this traditional view of measurement, numbers are not assigned to anything:

> "Measurement [as understood in the natural sciences] is the attempt to discover real numerical relations (ratios) between things (magnitudes of attributes), and not the attempt to construct conventional numerical relations where they do not otherwise exist." (17)

Michell claims that mere assignment of numbers to events or objects does not entail any commitment to truth. In contrast, to assert that my office is *x* feet wide entails truth or falsity: either it is *x* feet wide or it is not. It is the commitment to truth or falsity that makes measurement scientific.

In 1932 the British Association for the Advancement of Science convened a committee, comprised of 19 psychologists and physicists, to consider the feasibility of estimating sensory events. In its final report the Committee considered a measurement scale used by Stevens in his psychophysical research. Consequently, it was in his response to the Committee's report that Stevens first offered his definition of measurement.

Michell charges psychologists with overlooking the fallibility of scientists and their methods in adopting Stevens' view of measurement—that they accepted a definition of measurement without critically appraising it. As a result, they set about measuring attributes without fully understanding the conceptual underpinnings of measurement—which raises the question as to whether psychological measurement reflects reality.

It is commonplace in current historiography to charge early modern psychology with the twin 'crimes' of practicalism and scientism. For Michell, this is a case in point: in psychologists' haste to be taken seriously as scientists and practitioners, they unquestioningly accepted Stevens' definition. Michell concludes that quantitative psychologists must examine the nature of attributes they think they are measuring to discern if they are quantitative and, thus, measurable.

Of course, over the years many have questioned the status of psychology as a science altogether. Michell proposes that if psychology is indeed a science it must subject its hypotheses concerning the attributes it claims to measure to empirical test. A growing number of researchers in psychology have begun to question the efficacy of quantitative methods and, thus, have adopted qualitative methods of research, as for example, ethnography. As Michell recognizes, the behavior psychologists characterize results from myriad influences, not all of them quantitatively capturable.

Michell teaches psychometrics and measurement at the University of Sydney and writes about these topics with authority. All graduate students and instructors in psychology and the other social sciences should read this important book; historians and philosophers of psychology and the social sciences also will find it informative.

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