VOL.27 NO. 3 JULY 2019 ISSN 1062-7987

# EUROPEAN REVIEW



RECONSIDERING HUMANITY: BIG DATA, THE SCIENTIFIC METHOD, AND THE IMAGES OF HUMANS

GUEST EDITORS: URBAN STRANDBERG & CHRISTIAN MUNTHE

INTERDISCIPLINARY JOURNAL OF THE HUMANITIES AND SCIENCES OF THE ACADEMIA EUROPAEA: THE ACADEMY OF EUROPE



https://doi.org/10.1017/S1062798719000334 Published online by Cambridge University Press

## EUROPEAN REVIEW

#### Published in Association with the Academia Europaea

EDITOR-IN-CHIEF Professor Theo D'haen English and Comparative Literature, Leuven University, Blijde Inkomststraat 21-3311, B-3000 Leuven, BELGIUM e-mail: theo.dhaen@arts.kuleuven.be

EDITORIAL BOARD FOUNDING EDITOR Sir Arnold Burgen 8a Hills Avenue, Cambridge CB1 7XA, UK e-mail: asvb@cam.ac.uk

Professor Gian Vittorio Caprara Universita degli studi di Roma, Dipartimento di Psicologia, Facoltà di Medicina e Psicologia, via dei Marsi 78, 00185 Rome, ITALY e-mail: gianvittorio.caprara@uniroma1.it

#### Professor Giuseppe Longo

Centre Cavaillès, CNRS et Ecole Normale Supérieure, 29 Rue d'Ulm, 75005 Paris, FRANCE e-mail: longo@di.ens.fr

Professor Stephan Leibfried Center for Social Policy Research, University of Bremen, Parkallee 39,28209 Bremen, GERMANY e-mail: stlf@zes.uni-bremen.de

Professor Ole Petersen Cardiff School of Biosciences, Cardiff University, Biomedical Sciences Building, Museum Avenue, Cardiff CF10 3AX, UK e-mail: petersenoh@cardiff.ac.uk

Professor Juergen Renn MPI fuer Wissenschaftsgeschichte Wilhelmstrasse 44, Berlin 10117, GERMANY e-mail: renn.office@mpiwg-berlin.mpg.de

Professor Piotr Sztompka Institute of Sociology, Jagiellonian University, Grodzka 52, 31-044 Cracow, POLAND e-mail: ussztomp@cyf-kr.edu.pl Fax: (48)12-222129

Professor Denis Weaire School of Physics, Trinity College Dublin 2, IRELAND e-mail: dweaire@tcd.ie

Professor Björn Wittrock Swedish Collegium for Advanced Study, Götavägen 4, Se-752 36 Uppsala, SWEDEN e-mail: bjorn.wittrock@swedishcollegium.se

Professor Barbara Wright Department of French, Trinity College, Arts Building, Dublin 2, IRELAND e-mail: bwright@tcd.ie

CONSULTING EDITORS M Thierry de Montbrial, Institut Français des Relations Internationales, France Professor Quentin Skinner, Christ's College, Cambridge, UK

#### ASSOCIATE EDITORS

- Prof. Dr. Hagit Amirav, Professor of Patristics and Late Antiquity, Vrije Universiteit Amsterdam, The Netherlands, h.amirav@vu.nl – YAE - Humanities
- Dr Manuel Fernández-Götz, School of History, Classics and Archaeology, University of Edinburgh, m.fernandez-gotz@ed.ac.uk
- Prof. Dr. Robert Gerwarth, Professor of Modern History at University College Dublin and Director of the Centre for War Studies, Dublin, Irish Republic, robert.gerwarth@ucd.ie – AE - Humanities
- Dr. Alban Kellerbauer, Max Planck Institute for Nuclear Physics 69117 Heidelberg, Germany, a.kellerbauer@cern.ch, a.kellerbauer@mpi-hd.mpg.de – YAE - Exact Sciences

- Dr. Silvia Pellicer-Ortin, Dpto. de Filología Inglesa y Alemana Facultad de Educación - 50009 robert.gerwarth@ucd.ie Universidad de Zaragoza, España, spellice@unizar.es – YAE -Social Sciences
- Dr. Mangala Srinivas, Dept. of Tumour Immunology, Radboud University Medical Center, Nijmegen, The Netherlands, Mangala.Srinivas@Radboudumc.nl – YAE - Life Sciences
- Dr. Erdem Yörük, Dept. of Sociology, Koç University, and Department of Social Policy and Intervention, University of Oxford, eryoruk@ku.edu.tr

#### Subscriptions

European Review (ISSN 1062-7987; electronic 1474-0575) is published quarterly in February, May, July and October. The subscription price of volume 27 (2019) (which includes postage) is £319 net (USA, Canada and Mexico US\$555) for institutions print and electronic, institutions electronic only £264/\$460; £40 net (USA, Canada and Mexico US\$73) for individuals ordering direct from the publisher and certifying that the journal is for their personal use. Single parts cost £92 (USA, Canada and Mexico US\$160) plus postage. Members of the Academia Europaea receive online access to the journal as part of their membership subscription.

Orders, which must be accompanied by payment, may be sent to any bookseller, subscription agent or direct to the publisher: Cambridge University Press, Journals Fulfillment Department, UPH, Shaftesbury Road, Cambridge CB2 8BS, UK; or in the USA, Canada and Mexico: Cambridge University Press, Journals Fulfillment Department, 32 Avenue of the Americas, New York, NY 10013, USA. EU subscribers (outside the UK) who are not registered for VAT should add VAT at their country's rate. VAT registered subscribers should provide their VAT registration number. Japanese prices for institutions

are available from Kinokuniya Company Ltd, PO Box 55, Chitose, Tokyo 156, Japan.

Prices include delivery by air. Copies of the journal for subscribers in the USA, Canada and Mexico are sent by air to New York.

Application to mail at Periodicals Postage Rates is pending at New York, NY.

Please enquire about special rates for members of other learned societies, e-mail: journals@cambridge.org

#### Copying

This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA. Organisations in the USA who are also registered with CCC may therefore copy material (beyond the limits permitted by sections 107 and 108 of U.S. Copyright law) subject to payment to CCC of the per-copy fee of \$12.00. This consent does not extend to multiple copying for promotional or

commercial purposes. Code 1062-7987/2017 \$12.00.

ISI Tear Sheet Service, 3501 Market Street, Philadephia, PA 19104, USA, is authorised to supply single copies of separate articles for private use only.

Organisations authorised by the Copyright Licensing Agency may also copy material subject to the usual conditions.

For all other use, permission should be sought from Cambridge University Press.

For further information on European Review or other Press titles access journals.cambridge.org/erw or cambridge.org/.

This journal issue has been printed on FSC-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see www.fsc.org for information.

Printed in the UK by Bell & Bain Ltd., Glasgow.

© Academia Europaea 2019

# **European Review**

### VOLUME 27 NUMBER 3 JULY 2019

Articles	
Introduction: Big Data – Digital Technology, Loads of Empirical Materials, and a Daring Vision	
Christian Munthe and Urban Strandberg	317
Big Data and Changing Concepts of the Human Carrie Figdor	328
Not by Data Alone: The Promises and Pitfalls of Data Analysis in	
Understanding Consciousness Paula Droege	341
Big Data and Us: Human–Data Interactions Barry C. Smith	357
From Unconscious Inference to the Beholder's Share: Predictive	
Perception and Human Experience	
Anil K. Seth	378
Big Data and Creativity	
Palle Dahlstedt	411
Data Aggregation as Social Relations: Making Datasets from Salf Tracking Data	
Self-Tracking Data Dawn Nafus	440