EUROPEAN REVIEW



ERASMUS MEDAL LECTURE: FROM MARS TO THE MULTIVERSE

TRIBUTE TO THOMAS
W.B. KIBBLE PERSPECTIVES IN
FUNDAMENTAL
PHYSICS

FOCUS: LANGUAGE ENDANGERMENT AND REVITALIZATION

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



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 Henk Wesseling Wijttenbachweg 43, 2341 VX Oegstgeest, THE NETHERLANDS e-mail: h.l.wesseling@tele 2.nl

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@ttd.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 25 (2017) (which includes postage) is £303 net (USA, Canada and Mexico US\$528) for institutions print and electronic, institutions electronic only £251/\$438; £38 net (USA, Canada and Mexico US\$69) for individuals ordering direct from the publisher and certifying that the journal is for their personal use. Single parts cost £87 (USA, Canada and Mexico US\$152) 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

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

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 2018

European Review

VOLUME 26 NUMBER 1 FEBRUARY 2018

Erasmus Lecture From Mars to the Multiverse Martin Rees	1
Reproducibility of Published Research Johannes Klumpers	13
Disorder and Public Governance Sophie Body-Gendrot	20
Why Earthquakes Threaten Two Major European Cities: Istanbul and Bucharest Gregory A. Houseman	30
Transitional Women in the Transnational Era: Female Voices through Art Silvia Pellicer-Ortín	50
Tribute to Thomas W.B. Kibble Perspectives in Fundamental Physics Alban Kellerbauer and André Mischke	67
The Search for Dark Matter Laura Baudis	70
Low-energy Tests of Fundamental Physics Dmitry Budker	82
Gravitational Waves: Physics at the Extreme Jo van den Brand	90
Perspectives in Particle Physics after the Discovery of the Higgs Boson Guido Tonelli	100
On the Brout–Englert–Higgs–Guralnik–Hagen–Kibble Mechanism in Quantum Gravity Gerard 't Hooft	110
Focus: Language Endangerment and Revitalization Introduction: 'Language Endangerment and Revitalization' Wolfgang U. Dressler, Katarzyna Dziubalska-Kołaczyk and Alain Peyraube	117

Independent, Dependent and Interdependent Variables in Language Decay and Language Death	
Wolfgang U. Dressler	120
On some endangered Sinitic languages spoken in Northwestern China Alain Peyraube	130
A 'Small' Language in Contact with a 'Big' One: The Loss of the Alienability Distinction in Tének (Mayan) under Spanish Influence Elwira Sobkowiak and Marcin Kilarski	147
Purism, Variation, Change and 'Authenticity': Ideological Challenges to Language Revitalisation Julia Sallabank	164
Awakening the Language and Speakers' Community of Wymysiöeryś Tomasz Wicherkiewicz, Tymoteusz Król and Justyna Olko	179
Language Ideologies and Minority Language Education: Lessons from Brittany for Kashubia Nicole Dołowy-Rybińska and Michael Hornsby	192
Unbalanced Language Contact and the Struggle for Survival: Bridging	1,2
Diachronic and Synchronic Perspectives on Nahuatl Justyna Olko	207