

Zygon[®]

Journal of
RELIGION & SCIENCE



JUNE 2023

VOLUME 58 NUMBER 2

Editor: ARTHUR C. PETERSEN, University College London, UK

Former Editors: RALPH WENDELL BURHOE (1966–1979), Karl E. Peters (1979–2009), Philip Hefner (1989–2009), Willem B. Drees (2009–2018)

Book Review Editor: MLADEN TURK, Elmhurst University, USA

Associate Managing Editor: TOM HARLEY-MCKEOWN (Wiley, Oxford, UK)

Editorial Assistant: THIRISSHU SUNDAR (Wiley, Chennai)

Assistant Treasurer and Chicago Editorial Office Assistant: DAVID M. GLOVER
(Zygon Journal Corporation)

Joint Publication Board, appointed by IRAS (www.iras.org), the Institute on Religion in an Age of Science (1954), CASIRAS (www.casiras.org), the Center for Advanced Study in Religion and Science (1972) and ISSR (www.isr.org.uk), the International Society for Science and Religion (2002):

WILLEM B. DREES, Prof. Emeritus of Philosophy of the Humanities, Tilburg University, The Netherlands

SOLOMON H. KATZ, Prof. Emeritus of Anthropology, University, of Pennsylvania, USA

SARAH LANE RITCHIE, Program Officer, Philosophy & Theology, John Templeton Foundation, USA

EDWIN C. LAURENSEN, Lawyer, McDermott Will & Emery LLP, San Francisco, USA (President)

BENJAMIN M. STEWART, Gordon A. Braatz Associate Professor of Worship, Lutheran School of Theology at Chicago, USA

IGNACIO SILVA, Associate Professor, Philosophy Institute, Universidad Austral, Buenos Aires, Argentina (Secretary)

MICHAEL J. REISS, Prof. of Science Education, University College London, UK

MLADEN TURK, Baltzer Distinguished Chair of Theology and Religion, Department of Religious Studies, Elmhurst University, USA

GAYLE E. WOLOSCZAK, Prof. of Radiology and Cell and Molecular Biology, Northwestern University, USA (Treasurer)

Editorial Advisory Board:

THOMAS AECHTNER, Assoc. Prof. in Religion and Science, Univ. of Queensland, Australia

CHRISTINA ALUS DER AU, Prof., Pädagogische Hochschule Thurgau, Bishop, Protestant Church of Thurgau, Switzerland

ZAINAL ABDIN BAGIR, Center for Religious and Cross-Cultural Studies, Gadjah Mada Univ., Indonesia

JOSEPH BULBULIA, Prof. of Psychology, Victoria Univ., New Zealand

NA CHEN, Research Professor, Center for Social Development, Fudan University, China

ERNST M. CONRADIE, Senior Prof. of Religion and Theology, Univ. of the Western Cape, South Africa

RANA DAJANI, Prof. of Cell Biology, Hashemite University, Jordan

HELEN DE CRUZ, Danforth Chair in the Humanities, Prof. of Philosophy, Saint Louis University, MO, USA

FRANS DE WAAL, C. H. Candler Prof. of Psychology, Director Living Links Center, Emory Univ., Atlanta, GA, USA

TERRENCE DEACON, Prof. of Anthropology, Univ. of California Berkeley, USA

CELIA DEANE-DRUMMOND, Director, Laudato Si' Research Institute, Oxford, UK

ELAINE HOWARD ECKLUND, Herbert S. Autrey Chair in Social Sciences, Prof. of Sociology, Rice Univ., Houston, TX, USA

FERN ELSDON-BAKER, Prof. of Science, Knowledge and Belief in Society, Univ. of Birmingham, UK

DIRK EVERS, Prof. of Systematic Theology/Dogmatics, Martin Luther Univ. Halle-Wittenberg, Germany

OWEN J. FLANAGAN, Prof. of Neuroscience, Duke Univ., Durham, NC, USA

MOHAMMED GHAILY, Prof. of Islamic Law and Biomedical Ethics, Center for Islamic Legislation and Ethics, Doha, Qatar

MARCELO GLEISER, Prof. of Physics and Astronomy, Dartmouth College, Hanover, NH, USA

CARLOS MIGUEL GÓMEZ RINCÓN, Assoc. Prof., Theology and Religious Studies, Universidad del Rosario, Bogotá, Colombia

URSULA GOODENOUGH, Prof. Emerita of Biology, Washington Univ., St. Louis, Durham, NC, MO, USA

NIELS HENRIK GREGERSEN, Prof. of Systematic Theology, Univ. of Copenhagen, Denmark

NIDHAL GUESSOUM, Prof. of Physics and Astronomy, American Univ. of Sharjah, United Arab Emirates

YUANLIN GUO, Prof. of Philosophy, Center for Science, Technology and Society, Tianjin Univ., China

MARK HARRIS, Prof. of Natural Science and Theology, Univ. of Edinburgh, UK

PETER HARRISON, Prof. Emeritus, Institute for Advanced Studies in the Humanities, Univ. of Queensland, Australia

ANTJE JACKELÉN, Archbishop Emerita of the Lutheran Church of Sweden, Uppsala, Sweden

SEUNG CHUL KIM, Director, Nanzan Inst. For Religion and Culture, Nanzan Univ., Japan

JUAN LARRAÍN, Prof. of Cellular and Molecular Biology, Pontifical Catholic Univ. of Chile, Chile

YU-TING LEE, Assoc. Prof., East Asian History and Culture, National Taiwan Univ. Taiwan

SARA LUMBRERAS, Prof., Institute for Research in Technology, School of Engineering, Comillas Pontifical Univ., Spain

AGNALDO PORTUGAL, Assoc. Prof., Department of Philosophy, Univ. of Brasília, Brazil

FABIEN REVOL, Prof. of Moral Theology of Ecology, Catholic Univ. of Lyon, France

ROBERT J. RUSSELL, Prof. Emeritus of Theology and Science, Graduate Theological Union, Berkeley, CA, USA

KNUT-WILLY SÆTHER, Prof. of Religious Studies, Volda Univ. College, Norway

CHRISTOPHER SOUTHGATE, Prof. of Christian Theology, Department of Theology and Religion, Univ. of Exeter, UK

ANN TAVES, Distinguished Prof. Emerita of Religious Studies, Univ. of California Santa Barbara, USA

HAVA TIROSH-SAMUELSON, Irving and Miriam Lowe Prof. of Modern Judaism, Arizona State Univ., Tempe, AZ, USA

CLAUDIA E. VANNY, Prof. of Physics and Philosophy, Universidad Austral, Argentina

DANIE VELDSMAN, Prof. of Theology, Univ. of Pretoria, South Africa

WESLEY J. WILDMAN, Professor of Philosophy, Theology, and Ethics, Boston Univ., MA, USA

Statement of Perspective. The word *zygon* means the yoking of two entities or processes that must work together. It is related to *zygote*—meaning the union of genetic heritage from sperm and egg, a union that is vital in higher species for the continuation of advancement of life. The journal *Zygon* provides a forum for exploring ways to unite what in modern times has been disconnected—values from knowledge, goodness from truth, religion from science. Traditional religions, which have transmitted wisdom about what is of essential value and ultimate meaning as a guide for human living, were expressed in terms of the best understandings of their times about human nature, society, and the world. Religious expression in our time, however, has not drawn similarly on modern science, which has superseded the ancient forms of understanding. As a result religions have lost credibility in the modern mind. Nevertheless some recent scientific studies of human evolution and development have indicated how long-standing religions have evolved well-winnowed wisdom, still essential for the best life. *Zygon's* hypothesis is that when long-evolved religious wisdom is yoked with significant recent scientific discoveries about the world and human nature, there results credible expression of basic meaning, values, and moral convictions that provides valid and effective guidance for enhancing human life. *Zygon* also publishes manuscripts that are critical of this perspective, as long as such papers contribute to a constructive reflection on scientific knowledge, human values, and existential meaning.

Editorial Offices. Main Editorial Office: *Zygon* Journal, John Wiley & Sons Ltd, 101 Station Landing, Medford, MA 02155, USA. E-mail zygon@wiley.com. Chicago Editorial Office (Book Reviews): *Zygon* Journal, 1100 E. 55th Street, Chicago, IL 60615-5112, USA. Telephone +1 773-256-0767. E-mail zygon@lstc.edu.

Manuscripts. Please submit online via <http://mc.manuscriptcentral.com/zygon>. For author guidelines, see www.wileyonlinelibrary.com/journal/zygon.

Electronic Access and Back Issues. The journal, including all previous issues, is available at www.wileyonlinelibrary.com. Back issues are available from Wiley Blackwell Publishing, 350 Main Street, Malden, MA 02148, U.S.A. For back volumes in microfilm: University Microfilms, 300 North Zeeb Road, Ann Arbor, MI 48106; microfiche from Kraus Microform, Route 100, Millwood, NY 10564.

Indexes and Abstracts. *Zygon* is indexed in the ATLA Religion Database (www.atla.com). The contents are indexed or abstracted in *Arts & Humanities Citation Index*, *Book Review Index*, *Children's Book Review Index*, *Current Contents*, *Dietrich's Index Philosophicus*, *Family Index*, *Guide to Social Science and Religion*, *Humanities Index*, *I B Z—Internationale Bibliographie der Geistes—und Sozialwissenschaftlichen Zeitschriftenliteratur*, *Internationale Bibliographie der Rezensionen Geistes—und Sozialwissenschaftlicher Literatur*, *Lancaster Index to Defence & International Security Literature*, *New Testament Abstracts*, *Periodicals Contents Index*, *Philosopher's Index*, *R I L M Abstracts of Music Literature*, *Religion Index One: Periodicals*, *Religious & Theological Abstracts*, *Repertoire Bibliographique de la Philosophie*, *Russian Academy of Sciences Bibliographies*, *Social Sciences Citation Index*, *Social Services Abstracts*, and *Sociological Abstracts*.

Production Editor: Komal Agarwal (ZYGO@wiley.com)

Advertising. For information and rates, contact Advertising Sales Representative, Wiley Blackwell, 350 Main Street, Malden, MA 02148; corporatesalesusa@wiley.com.

Copyright. Copyright and copying © 2021 Joint Publication Board of *Zygon*. All rights reserved. No part of this publication may be reproduced, stored, or transmitted in any form or by any means without prior permission in writing from the copyright holder. Authorization to photocopy items for internal and personal use is granted by the copyright holder for libraries and other users registered with their local Reproduction Rights Organization (RRO), e.g., Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923, U.S.A. (www.copyright.com), provided the appropriate fee is paid directly to the RRO. This consent does not extend to other kinds of copying such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Special requests should be addressed to: permissions@wiley.com.

Disclaimer. The Publisher and Editor cannot be held responsible for errors or any consequences from the use of information in this journal. Views and opinions expressed do not necessarily reflect those of the Publisher and Editor; neither does publication of advertisement constitute any endorsement by the Publisher or the Editor of the product advertised.

Printed in the United States of America by The Sheridan Press.

ISSN 0591-2385 (Print)
ISSN 1467-9744 (Online)

For submission instructions, subscription and all other information visit: www.wileyonlinelibrary.com/journal/zygon

IN THIS ISSUE

EDITORIAL

ARTHUR C. PETERSEN Human Uniqueness

ARTICLES

YOGI HALE HENDLIN Object-Oriented Ontology and the Other of We in Anthropocentric Posthumanism

ANDREW SLOANE Disposable Bodies, Disabled Minds, and Christian Hope: Resurrection in Light of Transhumanism and Intellectual Disability

SIMON BALLE Responsive Bodies: Robots, AI, and the Question of Human Distinctiveness

JUST HOW SPECIAL ARE HUMANS?

ERIC PRIEST Introduction to Symposium on “Just How

JOSEPH HENRICH Special are Humans?”

CELIA DEANE-DRUMMOND

MARY ANN MEYERS

ERIC PRIEST Human Uniqueness: Debates in Science and Theology

JOSEPH HENRICH How Culture Made Us Uniquely Human

AGUSTÍN FUENTES Distinctively Human? Meaning-Making and World Shaping as Core Processes of the Human Niche

CRISTINE LEGARE The Cumulative Quality of Culture Explains Human Uniqueness

DAVID REICH Human Uniqueness from a Biological Point of View

ALAN MITTLEMAN “The Mystery of Human Uniqueness”: Common Sense, Science, and Judaism

JAN-OLAV HENRIKSEN Experiencing the World as the Evolved Image of God: Religion in the Context of Science

JENNIFER A. HERDT Responsible Agency: A Human Distinctive?

CELIA DEANE-DRUMMOND Tracing Distinctive Human Moral Emotions? The Contribution of a Theology of Gratitude

JOHN BEHR Nature Makes an Ascent from the Lower to the Higher: Gregory of Nyssa on Human Distinctiveness

CONTENTS

EDITORIAL

Human Uniqueness	ARTHUR C. PETERSEN	313
------------------------	--------------------	-----

ARTICLES

Object-Oriented Ontology and the Other of We in Anthropocentric Posthumanism	YOGI HALE HENDLIN	315
Disposable Bodies, Disabled Minds, and Christian Hope: Resurrection in Light of Transhumanism and Intellectual Disability	ANDREW SLOANE	340
Responsive Bodies: Robots, AI, and the Question of Human Distinctiveness	SIMON BALLE AND ULRIK NISSEN	358

JUST HOW SPECIAL ARE HUMANS?

Introduction to Symposium on “Just How Special are Humans?”	ERIC PRIEST, JOSEPH HENRICH, CELIA DEANE-DRUMMOND, AND MARY ANN MEYERS	378
Human Uniqueness: Debates in Science and Theology	ERIC PRIEST	384
How Culture Made Us Uniquely Human	JOSEPH HENRICH	405
Distinctively Human? Meaning-Making and World Shaping as Core Processes of the Human Niche	AGUSTÍN FUENTES	425
The Cumulative Quality of Culture Explains Human Uniqueness	CRISTINE LEGARE	443
Human Uniqueness from a Biological Point of View	DAVID REICH	454
“The Mystery of Human Uniqueness”: Common Sense, Science, and Judaism	ALAN MITTLEMAN	471
Experiencing the World as the Evolved Image of God: Religion in the Context of Science	JAN-OLAV HENRIKSEN	485
Responsible Agency: A Human Distinctive?	JENNIFER A. HERDT	504
Tracing Distinctive Human Moral Emotions? The Contribution of a Theology of Gratitude	CELIA DEANE-DRUMMOND	522
Nature Makes an Ascent from the Lower to the Higher: Gregory of Nyssa on Human Distinctiveness	JOHN BEHR	539

REVIEWS

- T&T Clark Handbook of Christian Theology and the Modern Sciences.*
By John P. Slattery ARTHUR C. PETERSEN 554
- Reinventing Society with Philosophy, Religion, and Science.*
By Neil Wollman and Carolyn J. Love ARTHUR C. PETERSEN 555
- Human Becoming in an Age of Science, Technology, and Faith.*
By Philip Hefner, Jason P. Roberts and Mladen Turk . VICTORIA LORRIMAR 556
- Created Being: Expanding Creedal Christology.*
By Rebecca L. Copeland ABEL K. ARUAN 557
- Science and Catholicism in Argentina (1750–1960): A Study on Scientific Culture, Religion, and Secularisation in Latin America.*
By Miguel De Asúa JAUME NAVARRO 559

ANNOUNCEMENTS 562

• Visit us at www.zygonjournal.org •

[Zygon, vol. 58, no. 2 (June 2023)]

© 2023 by the Joint Publication Board of Zygon. ISSN 0591-2385 (Print), ISSN 1467-9744 (Online)
Zygon and its logo are registered trademarks.

Information for Subscribers. *Zygon: Journal of Religion and Science* is published quarterly by the Joint Publication Board of Zygon, 1100 East 55th Street, Chicago, IL 60615-5112, USA, phone +1-773-256-0671, e-mail zygon@lstc.edu, through Wiley Subscription Services, Inc., a Wiley company, 111 River St., Hoboken, NJ 07030-5774, USA.

Subscription Prices. Personal: print + online \$97/£86/€97; AAR members: print + online \$80/£66/€80; Students: print + online \$61/£55/€61; Institutional: print + online \$515/£430/€541, print only \$412/£344/€433, online only \$412/£344/€433. Prices are exclusive of tax. Asia-Pacific GST, Canadian GST/HST, and European VAT will be applied at the appropriate rates. For more information on current tax rates, please go to www.wileyonlinelibrary.com/tax-vat. The price includes online access to the current and all online back files to January 1, 2015, where available. For other pricing options, including access information and terms and conditions, please visit <https://onlinelibrary.wiley.com/library-info/products/price-lists>.

Journal Customer Services: For ordering information, claims, and any inquiries concerning your journal subscription please go to www.wileycustomerhelp.com/ask or contact your nearest office.

Americas: Email: cs-journals@wiley.com; Tel: +1 781 388 8598 or +1 800 835 6770 (toll free in the USA & Canada).

Europe, Middle East, and Africa: Email: cs-journals@wiley.com; Tel: +44 (0) 1865 778315.

Asia Pacific: Email: cs-journals@wiley.com; Tel: +65 6511 8000.

Japan: For Japanese speaking support, Email: cs-japan@wiley.com; Tel: +65 6511 8010 or Tel (tollfree): 005 316 50 480.

Visit our Online Customer Help available in 7 languages at <https://hub.wiley.com/community/support/onlinelibrary>

Mailing. Periodical postage paid at Hoboken, New Jersey, and additional offices. Postmaster: Send address changes to Zygon, John Wiley & Sons Inc., C/O The Sheridan Press, PO Box 465, Hanover, PA 17331.

Delivery Terms and Legal Title. Where the subscription price includes print issues and delivery is to the recipient's address, delivery terms are Delivered at Place (DAP); the recipient is responsible for paying any import duty or taxes. Title to all issues transfers FOB our shipping point, freight prepaid. We will endeavour to fulfil claims for missing or damaged copies within six months of publication, within our reasonable discretion and subject to availability.

Printed in the USA by The Sheridan Group