OFFICIAL JOURNAL OF THE PHILOSOPHY OF SCIENCE ASSOCIATION

PHILOSOPHY OF SCIENCE

Volume 93 Number 4 October 2026

CAMBRIDGE UNIVERSITY PRESS

Journal of the Philosophy of Science Association

Philosophy of Science

Editorial Board: James Owen Weatherall, Editor-in-Chief
David Danks, Kenny Easwaran, Kevin Elliott, Doreen Fraser, Marta Halina, Marie Kaiser, Kareem Khalifa, Angela Potochnik, Hannah Rubin, Charlotte Werndl, and Xueyin (Snow) Zhang, Associate Editors

Jason McKenzie Alexander
Colin Allen
Jeffrey Barrett
Robert Batterman
William Bechtel
Gordon Belot
Katherine Brading
Richard Bradley
Matthew Brown
Justin Bruner
Cameron Buckner
Craig Callender
Nancy Cartwright
Mazviita Chirimuuta
Carl Craver
Heather Douglas
Stephen Downes
Manuela Fernández Pinto
Samuel Fletcher
Alexander Franklin
Mathias Frisch
Justin Garson
Alan Hájek
Stephan Hartmann
Don Howard
Nick Huggett
Simon Huttegger
James Joyce
Marc Lange
Sabina Leonelli
Chuang Liu
Helen Longino
Alan Love
Edouard Machery
Jane Maienschein
John Matthewson
Conor Mayo-Wilson
Inmaculada de Melo-Martín
Roberta Millstein
Sandra Mitchell
Teru Miyake
Robert Northcott
John Norton
Cailin O'Connor
David Papineau
Wendy Parker
Anya Plutynski
Thomas Polger
Julian Reiss
Alan Richardson
Sarah Robins
Jan-Willem Romeijn
Alex Rosenberg
Adina Roskies
Lauren Ross
Laura Ruetsche
Rose-Mary Sargent
Armin Schulz
Brian Skyrms
Chris Smeenk
Miriam Solomon
P. Kyle Stanford
Katie Steele
Jacob Stegenga
Dana Tulodziecki
Derek Turner
Jos Uffink
David Wallace
C. Kenneth Waters
Marcel Weber
Rob Wilson
James Woodward
Julie Zahle
Kevin Zollman

Managing Editor: India Bhalla-Ladd

Governing Board of the Association
President: Craig Callender, University of California, San Diego
President Elect: Alan Love, University of Minnesota, Twin Cities
Past President: Michela Massimi, University of Edinburgh
Treasurer: Kevin Zollman, Carnegie Mellon University
Secretary: Chris Haufe, Case Western Reserve University

Holly Andersen
Mazviita Chirimuuta
Mathias Frisch
Kerry McKenzie
Lydia Patton
Angela Potochnik
Jonathan Tsou
James Owen Weatherall

Executive Director: Max Cormendy

Volume 93 • Number 4 • October 2026

Philosophy of Science

Contents

Articles

705 *The Centrality of Progressive Realism to the Scientific Realism Debate*
James R. Beebe and Finnur Dellsén

728 *What Is It About Vitamins? Vitamins as Investigative Kinds*
Francesca Bellazzi

746 *Pragmatist Realism about Causation*
Jason DeWitt

767 *On the Quantum Theory of Molecules: Rigour, Idealization, and Uncertainty*
Nick Huggett, James Ladyman and Karim Thébault

792 *Understanding (Gender) Bias in Psychiatric Diagnosis: The Case of ADHD*
Anke Bueter

813 *Theoretical Virtue, Transient Diversity, and the Epistemic Success of Scientific Communities*
Keith Dyck

831 *Is the Probabilistic No-Miracle Argument Inferentially Fallacious?*
Kok Yong Lee

852 *Have Bayesians Solved the Paradox of the Ravens?*
Amit Karmon

873 *What Is Wrong with Rerandomization in Randomized Field Experiments?*
Mariusz Maziarz

898 *A Morality Evolutionary Game Theory Can Model*
Mikhail Volkov

Discussion Note

920 *Stuck Between a Rock and a Hard Science: Three Challenges with Putting Epistemic Projection to Work*
Kelli Barr and Katharina Bernhard

Book Reviews

930 Review of Mathieu Charbonneau's *The Evolution of Techniques: Rigidity and Flexibility in Use, Transmission, and Innovation*
Ross Pain

933 Review of Bryan W. Roberts' *Reversing the Arrow of Time*
Brett Park

Philosophy of Science (ISSN 0031-8248) is published January, April, July, October, and December by Cambridge University Press, One Liberty Plaza, New York, NY 10006, USA/Cambridge University Press, University Printing House, Shaftesbury Road, Cambridge CB2 8BS, UK.

Periodicals postage paid a New York, NY, and at additional mailing points.

Postmaster: Send address changes in the USA, Canada, and Mexico to *Philosophy of Science*, Cambridge University Press, Journals Fulfillment Department, One Liberty Plaza, 20th floor, New York, NY 10006. Send address changes elsewhere to *Philosophy of Science*, Cambridge University Press, Journals Fulfillment Department, UPH, Shaftesbury Road, Cambridge CB2 8BS, England.

Membership and Subscription Rates
Individual members of the PSA receive a subscription to the journal. Membership rates for 2025 are tiered based on income and start at $36 print + electronic, $27 e-only. To join the PSA visit: https://philsci.org/membership.php. Institutional print + electronic and e-only subscription rates are tiered according to an institution's type and research output: £282/$392 to £577/$797 print + electronic, £203/$282 to £408/$565 e-only. Institutional print-only is £295/$405. Additional taxes may apply. Free or deeply discounted access is available for many institutions through Cambridge University Press's developing world country programme: https://www.cambridge.org/core/services/librarians/developing-country-programme. For additional rates, and any other subscription queries, please contact: journals@cambridge.org.

Copying Beyond Fair Use
Articles may be copied or otherwise reused without permission only to the extent permitted by Sections 107 and 108 of the US Copyright Law. Permission to copy articles for personal, internal, classroom, or library use may be obtained from the Copyright Clearance Center (http://www.copyright.com/). For all other uses, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale, please contact permissions@cambridge.org. Articles in the public domain may be used without permission, but it is customary to contact the author.

Articles appearing in *Philosophy of Science* are abstracted or indexed in Arts and Humanities Citation Index, Biological Abstracts, Bulletin Signalétique 519, Current Contents/Arts and Humanities, Current Contents/Social and Behavioral Sciences, Current Index to Statistics, Humanities Index, Index to Book Reviews in the Humanities, Isis Critical Bibliography, Language & Language Behavior Abstracts, Mathematical Reviews, Philosopher's Index, Philosophic, Psychological Abstracts, Repertoire Bibliographique de la Philosophie, Social Sciences Citation Index, Sociological Abstracts.

© 2026 by Philosophy of Science Association. All rights reserved.

For EU product safety concerns, contact us at Calle de José Abascal, 56, 1°, 28003 Madrid, Spain, or email eugpsr@cambridge.org.

Printed by Sheridan, a CJK Group Company.