

HPS&ST Newsletter
November 2024
Vol.37 (9)
ISSN: 2652-2837

CONTENTS

# Introduction	1
# Vale Michael Ruse (1940-2024)	1
# The HPS Podcast	2
# University of Pittsburgh, Visiting Fellowships	2
# 27th International Congress of History of Science and Technology, Dunedin, June 29-July 5, 2025	3
# ISHPSSB 2025 Conference, 20–25 July 2025, University of Porto	3
# PhilSci Archive - Top 5 Downloads + Books	4
# Workshop on Scientific Pluralism, Epistemic Diversity, and Progress in Science, 27-28 March 2025, University of Wuppertal	5
# OPINION PAGE: Imposed Ideologies and the Future of New Zealand Universities John Raine, Auckland University of Technology	
# Varia	14
# Featured Book <i>Women in the History of Science: A sourcebook</i>, UCLP	14
# Golden Oldie: HPS&ST Research from 30+ Years Ago Israel Scheffler, ‘Philosophy and the Curriculum’ (1970)	15
# Recent HPS&ST Research Articles	15
# Recent HPS&ST Related Books	16
# PhD Awarded in HPS&ST	23
# Coming HPS&ST Related Conferences	23
# HPS&ST Related Organisations and Websites	23
# HPS&ST Newsletter Personnel	24

Introduction

The HPS&ST Newsletter is sent monthly to about 11,000 emails of individuals who directly or indirectly have an interest in the contribution of history and philosophy of science to theoretical, curricular and pedagogical issues in science teaching, and/or interests in the promotion of innovative, engaging and effective teaching of the history and philosophy of science. The newsletter is sent on to different international and national HPS lists and international and national science teaching lists. In print or electronic form, it has been published for 40+ years.

The Newsletter, along with RESOURCES, OBITUARIES, OPINION PIECES and more, are lodged at the website: [HERE](#)

The newsletter seeks to serve the diverse international community of HPS&ST scholars and teachers by disseminating information about events and publications that connect to concerns of the HPS&ST community.

Contributions (publications, conferences, Opinion7Piece, etc.) are welcome and should be sent direct to the editor: Michael R. Matthews, UNSW, m.matthews@unsw.edu.au .

Vale Michael Ruse (1940-2024)



Michael Ruse, a prominent philosopher of biology and public champion of science and evolutionary theory, died at his Tallahassee home on 1st November aged 84 years.

Michael's [Wikipedia entry](#) has a comprehensive account of his education, academic career (University of Guelph then Florida State University), his many books and numerous articles and chapters. The 'Recent Books' section of this newsletter notes his final book *Charles Darwin: No Rebel, Great Revolutionary*. Cambridge, Cambridge University Press, 2024 ([HERE](#)).

The [Leiter Report](#) has an extensive list of remembrances by his friends and colleagues. He was a diligent friend of many; so many people who he met in academic, and doubtless outside life, became friends; they realised that Michael was interested in them, their work, their careers and families. This is a rare academic quality.

Michael had a life-long interest in education famously being an Expert Witness in the 1981 [Arkansas 'Creationism' trial](#).

In 1989 he took a part in the dramatic production 'Re-trial of Galileo' at the first

IHPST International Conference held at Florida State University. He was a member of the Founding Editorial Committee of the journal *Science & Education: Contributions from History, Philosophy and Sociology of Science*.

With Michael Reiss, he contributed an Opinion Piece to this newsletter (May 2023): 'The New Biology: A Battle between Mechanism and Organicism' [HERE](#).

Michael will be sorely missed by family and by many friends throughout the world.

The HPS Podcast

The HPS Podcast - Conversations from History, Philosophy and Social Studies of Science

Leading scholars in History, Philosophy and Social Studies of Science (HPS) introduce contemporary topics for a general audience.

Developed by scholars and students in the HPS program at the University of Melbourne. Producers and Hosts: Samara Greenwood and Carmelina Contarino.

[S4 Ep 2 - Simon Schaffer on 'Leviathan and the Air-Pump: 40 years later' \(Part 1\)](#)

[S4 Ep 2 - Simon Schaffer on 'Leviathan and the Air-Pump: 40 years later' \(Part 1\)](#)

[S4 Ep 7 - Naomi Oreskes on 'Writing on Ignorance'](#)

[S4 Ep 8 - Nicole C. Nelson on 'Ethnographies of Science'](#)

[S4 Ep 9 - Holden Thorp on 'Teach History and Philosophy of Science'](#)

Holden Thorp is Editor-in-Chief of Science and is on a campaign to promote more teaching of History and Philosophy

of Science to science students at secondary and tertiary levels.

If you prefer to read the interviews, we publish transcripts of all our episodes (some a little delayed) on our blog here - [Podcast Transcripts](#).

Samara Greenwood
PhD Candidate
Co-Host of [The HPS Podcast](#)

University of Pittsburgh, Visiting Fellowships

The Center for Philosophy of Science invites applications for visiting fellowships for the fall and/or spring term of the 2025-2026 academic year. These fellowships allow philosophers of science to work on their nominated research projects in a supportive academic environment. Ten fellowships are offered each year.



Applicants must hold a doctoral degree, preferably in philosophy or history and philosophy of science, or have an established position in the philosophy of science community.

Applications from underrepresented groups are particularly welcome.

Applications are due by **December 8th, 2024**, and must be submitted electronically on the University of Pittsburgh jobs portal. Apply [HERE](#)

More information and link to apply can be found [HERE](#):

27th International Congress of History of Science and Technology, Dunedin, June 29-July 5, 2025



The 27th International Congress of History of Science and Technology will be held from **29 June - 5 July 2025** at the University of Otago in Dunedin, New Zealand.

Symposium Proposals due by 1 May 2024.

Standalone Papers due by 1 December 2024.

The International Congress of History of Science and Technology (ICHST), held every four years, is the world's premier meeting for history of science and technology. The 27th Congress will be held as a hybrid in-person and online event at the University of Otago's Dunedin campus in June-July 2025. Delegates registered for virtual participation will be able to both present and attend online. The Congress will bring together a diverse group of the world's leading scholars and students in the fields of history of science, technology, and medicine as well as related disciplines. It will be the first time the Congress has been held in Australasia and only the second time in the Southern Hemisphere.

The **theme** of the 27th ICHST is “Peoples, Places, Exchanges, and Circulation.”



Details [HERE](#)

ISHPSSB 2025 CONFERENCE, 20–25 JULY 2025, University of Porto

The [International Society for the History, Philosophy, and Social Studies of Biology](#) (ISHPSSB) brings together scholars from diverse disciplines, including the life sciences as well as history, philosophy, and social studies of science. The biennial ISHPSSB summer meetings are known for innovative, transdisciplinary sessions, and for fostering informal, cooperative exchanges and ongoing collaborations.

The upcoming ISHPSSB meeting will be held in Porto, Portugal, from 20–25 July, 2025. The [website for the upcoming conference](#) is currently under development.

Two special sessions are being co-organized by ISHPSSB and IHPST. If your paper fits the following topics, please send a message to the email indicating your interest in these specific sessions. In these cases, the organizers will submit the session.

- The construction of school knowledge on history, philosophy, and social studies of

biology (contact: Charbel El-Hani, charbel.elhani@gmail.com)
- Making educational sense of the philosophical significance of “new biology”

(contact: Ramsey Affifi, affifi@gmail.com)

The submission deadline is 1 November, 2024.

PhilSci Archive - Top 5 Downloads + Books

PhilSci-Archive is the official preprint repository for the PSA and the best place to host your philosophy of science preprints. It offers a free, stable, and openly accessible archive for scholarly articles and monographs.

Downloadable books are available [HERE](#)

The most downloaded preprints for the last six months of articles deposited in the previous two years are:

[Cobb, David \(2022\) Empiricism in the Philosophy of Science](#)

[Wiggleton-Little, Jada and Callender, Craig \(2022\) Screening Out Neurodiversity](#)

[Chen, Eddy Keming \(2023\) Laws of Physics](#)

[Ardourel, Vincent and Bangu, Sorin \(2023\) Finite-size scaling theory: Quantitative and qualitative approaches to critical phenomena](#)

[Stern, Julio Michael and Pereira, Carlos Alberto de Braganca and Lauretto, Marcelo de Souza and Esteves, Luis Gustavo and Izbicki, Rafael and Stern, Rafael Bassi and Diniz, Marcio Alves and Borges, Wagner de Souza \(2023\) The e-value and the Full Bayesian](#)

[Significance Test: Logical Properties and Philosophical Consequences](#)

Workshop on Scientific Pluralism, Epistemic Diversity, and Progress in Science

27-28 March 2025
University of Wuppertal, Germany

Submission Deadline: 15.11.2024
Notification of Acceptance: 15.12.2024

The idea that science should converge on a single, ultimate truth has become contested as the dominant view in the academic world; scientific pluralism has gained wide acceptance. However, these discussions have become so rich and entangled that now we can speak of a confusing “plurality of [scientific] pluralisms” (Wylie 2015). The overall goal of this workshop is to examine and clarify different ideas of scientific pluralism.

The workshop investigates the complex relationship between scientific pluralism, epistemic diversity and scientific progress, both theoretically and through the examination of case studies. The overall goal is to discuss whether pluralism hinders or contributes to progress, and to explore the roles of institutional and social structures in this dynamic. A particular focus is put on the social sciences, with an emphasis on the fields of psychology and economics, but case studies from any other field of science are very welcome.

Keynote Speakers:

- Anna Alexandrova (University of Cambridge)
- Paul Hoyningen-Huene (Leibniz University Hanover)
- Inkeri Koskinen (University of Helsinki)
- David Ludwig (Wageningen University & Research)

For further information, please visit our workshop website at

<https://grk2696.de/scientific-pluralism-workshop/>. If you have any further questions, please do not hesitate to contact us at pluralism.workshop@uni-wuppertal.de

Opinion Page

Imposed Ideologies and the Future of New Zealand Universities

JOHN RAINE, Auckland University of Technology



John Raine is an Emeritus Professor of Engineering and has formerly held positions as Pro Vice Chancellor (Research and Innovation) at AUT, Deputy Vice Chancellor (Albany and International) at Massey University, and Pro Vice Chancellor (Enterprise and International) at University of Canterbury. He was Moderator for the national Performance Based Research Fund Quality Evaluation in 2012. He has had a long-term involvement in New Zealand’s innovation system and chaired the Government’s Powering Innovation Review in 2011.

Critical Social Justice Ideology in Western World Universities

Sir Niall Ferguson's article, *The Treason of the Intellectuals* [1], and his related Hoover Institution interview in January 2024 [2], were a sobering reminder that in 1924 in the German Weimar Republic, university academics (with lawyers and doctors) were contributing to the development of extreme antisemitic policy used later by the Nazi regime. The politicisation of German universities such as Heidelberg and Tübingen during this period led eventually to their losing their standing as the world's very best. Niall Ferguson describes how we have now seen a new politicisation of universities throughout the Western World.

An ideological shift has occurred away from institutional political neutrality, and away from a primary focus on excellence in teaching and research, towards the imposition of the Critical Social Justice (CSJ) politics of diversity, equity, and inclusion (DEI), but including a new race-based oppressor ranking where whites, Asians and Jews are the oppressors. CSJ ideology denies the existence of objective truths, is intolerant of dissenting views and tends to be anti-science.

Pluckrose and Lindsay, in "Cynical Theories" [3] p. 208 state regarding CSJ,

Social Justice Scholarship does not merely present the postmodern knowledge principle – that objective truth does not exist and knowledge is socially constructed and a product of culture – and the postmodern political principle – society is constructed through knowledge by language and discourses, designed to keep the dominant in power over the oppressed. It treats them as The Truth, tolerates no dissent and expects everyone to agree or be "cancelled."

and on pp210-211:

It is therefore no exaggeration to observe that Social Justice Theorists have created a new religion, a tradition of faith that is actively hostile to reason, falsification, disconfirmation and disagreement of any kind. Indeed, the whole postmodernist project now seems, in retrospect, like an unwitting attempt to have deconstructed the old metanarratives of Western thought – science and reason along with religion and capitalist economic systems – to make room for a wholly new religion, a postmodern faith based on a dead God, which sees mysterious worldly forces in systems of power and privilege and which sanctifies victimhood.

The characteristics and worldwide adverse effects of CSJ in our public institutions and businesses have also been well summed up in the opening chapters of Helen Pluckrose's latest book [4], *The Counterweight Handbook*, in which she provides advice for those needing to argue against imposed CSJ ideology in the workplace.

The ironically oppressive and exclusionary DEI politics in Western universities are more sinister and less easily overcome than an isolated movement because of their very pervasiveness. CSJ activists have a messianic belief in the rightness of their cause, and there have now been numerous instances of academic staff being "cancelled" (loss of advancement and funding, even employment) for refusing to undergo DEI training or otherwise align with their institution's DEI policies. Repression of academic freedom and freedom of speech is now widespread. Russian mathematics professor, Alexander Barvinok [5], has likened the new DEI regime to the oppressive environment he experienced in communist Russia before emigrating to the USA.

A notable example among many is that of Professor Eric Kaufmann, who resigned from Birkbeck College, University of London late 2023 and moved to the University of Buckingham because of the hostile “cancel culture” at Birkbeck regarding his non-alignment with his University’s DEI policies. Kaufmann has reported in detail [6] on loss of university academic freedom caused by onerous CSJ/DEI policies in universities in Canada, the UK, and the USA.

In the USA, pressures to pull back on oppressive Diversity, Equity and Inclusion (DEI) policies in businesses and universities have gathered modest and patchy momentum. Not so elsewhere, it seems. The UK Labour Government has said that it will not support the Freedom of Speech Act 2023 legislation that could see universities and student unions fined for failing to uphold freedom of speech. Even in the USA, Niall Ferguson is so pessimistic about academia shaking off the weighty shackles of CSJ in the foreseeable future that he has co-founded the new university of Austin in Texas this year, based on a constitution that aims to ensure the institution is steadfastly secular, apolitical and free of CSJ ideology.

New Zealand Academia - Universities or Culturally Based Education Institutions?

What is happening to New Zealand Universities?

CSJ/DEI agendas internationally have typically focused on issues such as race, gender and climate change. In New Zealand, universities have been undergoing a cultural reshaping where CSJ ideology has manifested itself most strongly around Treaty of Waitangi politics and efforts by some to indigenise the country’s senior academic institutions.

Articles by Raine, Lillis and Schwerdtfeger [e.g. 7,8] have commented on this issue. This activism has been strongest in areas such as Education, Law and Social Sciences, but is now occurring in the in STEMM subjects (Science, Technology, Engineering, Mathematics, Medicine), particularly in the Biological Sciences.

Decolonisation activists seek to impose Māori culture as the defining culture of New Zealand’s universities. New Zealand Qualifications Authority (NZQA) Annual Reports from 2011 and 2022 [9] indicate that this cannot be justified on the grounds of increasing Māori enrolments at university, as the barriers to entry mostly relate to the low proportion of Māori completing secondary school education with a University Entrance qualification. Once enrolled at university their success is a little lower than but similar to that of other students. Research findings by Marie et al. [10] further suggest that educational underachievement amongst Māori can be largely explained by disparities in socio-economic status during childhood.

Nonetheless, activist academics such as Hoskins & Jones [11] have a clear wish or agenda to completely change the cultural character of the university. For example, Hoskins & Jones say:

Indigenisation refers not to the inclusion of indigenous people, values and knowledge within a largely unchanged or superficially-changed institutional structure, but to the normalisation of indigenous ways of being and knowing.

and,

Indigenisation keeps a firm eye on institutional change; the university (or the school) becomes ‘more Māori’. Success on this model is evidence that the university has more (permanent,

high status) Māori staff, and students, teaches more Māori knowledge in more Māori ways, is a place where Māori assumptions and priorities are supported and resourced, where people at all levels engage with each other on the basis of friendship and individual care (whanaungatanga and manaakitanga).

These authors, like other decolonisation advocates, argue for institutional change that will take the university away from being a home of culturally neutral academic discourse. (This issue is addressed later in this essay.)

Decolonisation agendas involve the introduction of courses, taught by Māori staff, that are intended to be mandatory, introducing students to the Māori worldview (Te Ao Māori), elements of Māori traditional knowledge (matauranga Māori), tikanga (protocols and processes), kawa (rules), together with particular interpretations of the Treaty of Waitangi and New Zealand colonial history. The presence of such courses per se is not problematic if they are optional, but any course content which cannot be questioned by students or other staff becomes indoctrination, which should have no place in a university.

The imposition of Te Ao Māori as the dominant culture by the University, placing expectations on staff to support this cultural overlay and dictating administrative, meeting and hosted event protocols, effectively politicises the university. This is even more the case given that the interpretation of the Treaty of Waitangi and its constitutional role in New Zealand's future are currently major political issues.

An immediate question is why the Country's universities should be indigenised for other than purely political reasons? New Zealand has three wānanga

as publicly owned tertiary education institutions, providing tertiary education in a Māori cultural context, and creating these institutions was positive for young Māori. They are: Te Wānanga o Raukawa (1981), Te Wānanga o Aotearoa (1984), and Te Whare Wānanga o Awanuiarangi (1991). Why then, should our universities appear to be on a determined march towards indigenisation that could leave them looking like wānanga and no longer recognisable as universities in the internationally understood sense?

An education institution may, of course, be based around the knowledge and belief system of a particular culture but, like adherents to a religious movement, those attending such an institution must accept, as doctrine, aspects of cultural lore that require an act of faith, as they cannot be verified through modern science. An example is the attribution of spiritual properties to water by Māori, as discussed by Gary Judd [12].

The academic community has welcomed greater engagement with Māori culture over the past 25 years, and efforts to bring more Māori students into university. This was liberal social justice in action, with real efforts to deliver more equitable outcomes for one population group. Similar efforts have been made with Pasifika. However, the more recent declarations of being "*Te Tiriti-led*", and activism to decolonise or indigenise the culture of our universities, has put universities increasingly at risk of being seen internationally as ethno-institutions, whose primary focus on teaching and research excellence has fallen before the juggernaut of CSJ ideology. Doug Stokes [13] states in this respect:

..the historical telos of universities as depositories of our collective cultural wisdom and knowledge is thus changed from forms of debate and free speech to those of multiple truths and power plays

to impose dominance. In this way, the universities and those academics within them are transformed from fallible but authoritative judges and teachers of the sum of human knowledge to being part of a broader political struggle between a binary of oppressed versus the oppressors. (*Against Decolonisation*, pp. 81-82)

The assertion that all human knowledge is equally valid and the university is a site of power contestation makes it easier to understand the abandonment of fundamental academic principles, not least that of academic freedom. (*Against Decolonisation*, pp. 83-84)

Effects on the Research Funding System

The infusion of CSJ ideology into the New Zealand Ministry of Education (MoE) and Ministry of Business, Innovation and Employment (MBIE), sits behind their declaring equal standing (mana orite) between matauranga Māori and modern science, now reflected in the public funding of research, most notably in the social sciences but also for “science” projects that seek to position Māori traditional knowledge on an equal footing, or to fuse it with modern science.

MBIE, the Royal Society Te Aparangi (The Royal Society of New Zealand), and the Health Research Council, as major funding agencies, have undergone a significant shift towards CSJ thinking in their funding of research. An example is the resurgence of work in Rongoa Māori (Māori traditional system of healing) such as the use of whale oil treatments and karakia (prayers or incantations) in the management of Kauri tree dieback [14] in Government funded research under the Biological Heritage National Science Challenge.

MBIE advice to grant applicants and assessors for the Endeavour Fund (echoed

in the University of Otago MBIE grant advice to staff, for example) makes it clear that success is unlikely unless applicants have a strong section on *Vision Matauranga*, Māori research programme participants (preferably a co-lead) and iwi (tribe) engagement. This is highly prejudicial to success for many Science and Engineering grant applicants. For example, *Vision Matauranga* is extremely unlikely to be relevant in a nuclear physics research project. Moreover, such restrictions are diverting some research funding away from excellent science and will deter international scholars from applying for positions in New Zealand.

The Defining Characteristics of Universities

In this changed environment, we must remind ourselves of the defining characteristics of a university and how these conflict with aims to transform the university into an organisation dominated by a single culture and where indoctrination occurs.

Robert Anderson, in *The Idea of a University Today* [15] states:

The idea of a university in which teaching and research were combined in the search for impartial truth reached classic form in nineteenth-century Germany, and eventually became the dominant model. Other features of the model were intellectual freedom in research and teaching, university autonomy, the growth of independent disciplines with their own standards and priorities, and internationalism.

The 1967 University of Chicago *Kalven Committee Report* [16] reaffirmed the role and functions of the university in the modern world. The Kalven Report states, in particular:

To perform its mission in the society, a university must sustain an extraordinary environment of freedom of inquiry and

maintain an independence from political fashions, passions, and pressures.

The imperative for universities to maintain a secular, politically neutral position is also emphasised in the first of four fundamental principles that are articulated in the 1988 European Bologna Accord on the role of universities [17]. This affirms that:

The university is an autonomous institution at the heart of societies differently organised because of geography and historical heritage; it produces, examines, appraises, and hands down culture by research and teaching. To meet the need of the world around it, its research and teaching must be morally and intellectually independent of all political authority and economic power.

In an interview with Yasha Mounk, Larry Summers [18], former Harvard University President, states

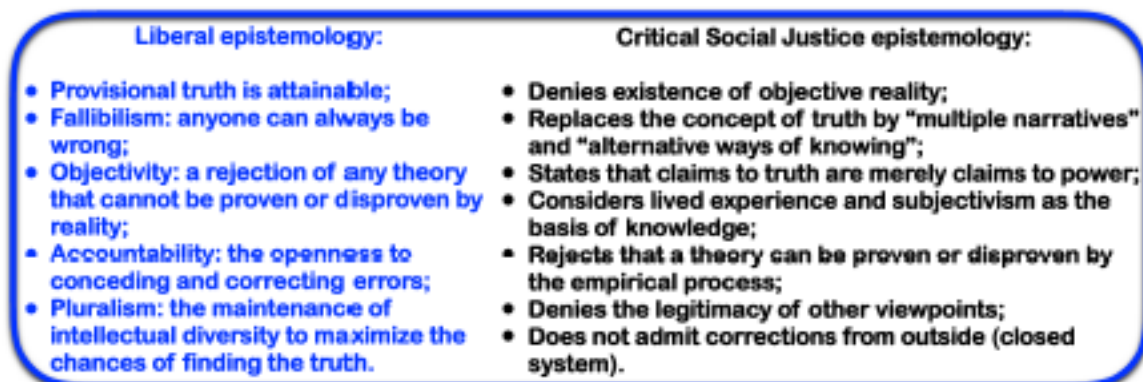
I think the values that animated me to spend my life in universities were values of excellence in thought, in pursuit of truth. We're never going to find some ultimate perfect truth, but through argument, analysis, discussion, and study we can get closer to truth.

And a world that is better understood is a world that is made better.

And later:

I think there is a widespread sense—and it is, I think, unfortunately, with considerable validity—that many of our leading universities have lost their way; that values that one associated as central to universities—excellence, truth, integrity, opportunity—have come to seem like secondary values relative to the pursuit of certain concepts of social justice, the veneration of certain concepts of identity, the primacy of feeling over analysis, and the elevation of subjective perspective. And that has led to clashes within universities and, more importantly, an enormous estrangement between universities and the broader society.

This focus on a quest for truth and free discussion of ideas means that universities should be defined by liberal epistemology. Abbot et al. [18], in *"In Defense of Merit in Science"* compare in the following diagram liberal epistemology, under which the scientific method falls, with critical social justice theory, which increasingly dominates university discourse in some disciplines, and where traditional or indigenous knowledge is generally positioned.



Universities should thus be characterised by a politically neutral environment of open enquiry and criticism, where ideas on any subject can be debated, in an open-ended quest for truth, and where modern science is underpinned by method: hypothesis, test, verification or falsification, and always the possibility of new evidence or knowledge reshaping our understanding of a particular phenomenon. In such an environment, the requirement that a particular culture that must be treated as sacrosanct, and the indoctrination or the mandated teaching of unquestionable traditional knowledge, have no valid place. As noted earlier, if these things occur, and if the institution itself imposes a particular cultural rule set on the academic community, then it has been directly or indirectly politicised. The impositions of indigenisation thus conflict with the very nature of a university.

Imposition of Te Ao Māori and its Effect on the Character of New Zealand Universities

Academic Freedom Compromised

In New Zealand, CSJ and related DEI activism have, if anything, gathered momentum in our universities since 2020, with increasing intolerance shown towards academics whose views do not align with universities' policies, particularly around the Treaty of Waitangi.

As I noted in an earlier article [19]:

Under the Education and Training Act 2020 281(1)(b), university Councils are required to acknowledge the principles of Te Tiriti o Waitangi, but also to preserve academic freedom. This has led to a conflicted situation in which giving of expression to Treaty principles has begun to trump academic freedom and freedom of speech.

Dr James Kierstead has given excellent interviews on New Zealand's Reality Check Radio (RCR) and The Platform following the publication of his recent substantial New Zealand Initiative report,

Unpopular Opinions, presenting 72 testimonies of suppression of academic freedom in New Zealand universities [20].

Such instances, which most probably comprise a fraction of those that have occurred, are of course related to all academic matters - not only the Treaty of Waitangi. The report of the recent Auckland University of Technology Law School Staff Survey (NZ Herald 8th September 2024) indicated that 20% experienced discrimination and 35% faced bullying in recent years. While it is only one example, this suggests an environment which is not conducive to academic freedom.

Universities Adopting Māori Culture and the Teaching of Mātauranga Māori

While the 1840 Treaty of Waitangi (between Queen Victoria and Māori tribal chiefs) is frequently called the founding document for New Zealand, it is brief, and "principles" related to the Treaty have been created only in the last 40 years. The Maori version, "Te Tiriti", is silent on education (as is the English Translation), and the "values" that might be inferred from Te Tiriti are simply that Māori should benefit from education, along with other subjects of the Crown. Nonetheless, the eight Treaty principles of Victoria University of Wellington [21, 22], make very general statements around, in particular, **rangatiratanga** (autonomy and self-determination), **whai wāhi** (participation).

While these principles appear reasonable in general terms, any imposition of tenets of Māori culture, or any other culture, puts academic freedom at risk. And, while the principle of **kawanatanga** (governance) ensures Māori representation on the University Council, which must discharge appropriately its obligations to Māori, there is no requirement that the Council discharges its obligations to all other ethnicities present on campus.

Mātauranga Māori involves wide knowledge from observation of nature, including flora and fauna, a phenomenological understanding of ecosystems, local geology and geography, the weather, and

celestial navigation. However, without written language, metal smelting, the wheel, mathematics, all of the physics, chemistry and biology, and advances of modern science, in technological terms, mātāwhiri Māori corresponds to knowledge in other societies predating 3000 BC.

Philosophical and scientific advances of the liberal Enlightenment, from about the mid-17th century to the present day, have delivered huge benefits in health, nutrition, domestic comfort, quality of life, life expectancy, education and a codified legal system that were not available from traditional and indigenous knowledge systems. Modern science evolved with contributions from Europe, the Middle and Far East, as well as North America, and should not be pejoratively labelled “Western Science”.

Its advances have been described as tools of colonial oppression, but they are not, as science itself is universal and apolitical. Certainly, the technology developed from science has sometimes been used for political ends and not all scientists have behaved with integrity or compassion, but, for example, the New Zealand Ministry of Education should not be inviting our young people to believe that mathematics is neither benign, neutral nor culture-free [24].

Massey University Provost, Professor Giselle Byrnes, in mid-2024 made the following comment that illustrates the conflicted position in which Massey and other universities now find themselves, having declared that they are Te Tiriti-led:

Te Tiriti o Waitangi and its core principles are values that serve to guide the mission and purpose of the university, underpinning teaching, research and the core operations of the university in a way that is appropriate for our historical, geographical, and social context.

Given Massey’s commitment to being Te Tiriti-led and its support for increasing Māori cultural content despite the concerns of many esteemed academics, the risk of indoctrination and loss of academic freedom is significant.

In this context, **Massey University** has closed Engineering at all its campuses and has also closed Food Technology and most of its Sciences at the Albany campus, ostensibly for financial reasons. This is astonishing at a campus surrounded by high-performing secondary schools, and in the Auckland region where there is a high demand for degree studies in the Sciences and Engineering. It is unsurprising in this situation that Massey’s latest staff survey shows an extraordinarily low 6% of staff feel positively motivated by the University’s present leadership and only 5% positive that there was open and honest two-way communication.

A recent advertisement for positions of Dean of Science and Head of School of Physical and Chemical Sciences at the **University of Canterbury** stated, in the list of “Experience and skills” for the two advertised positions, “*Active commitment to upholding the values, tikanga (protocols and processes), kawa (rules) of cultural practice and traditions as guided by mana whenua, Ngāi Tūāhuriri.*” Why in an institution that should be secular and not subject to cultural protocols from any external cultural or political group, should staff be required to uphold tribal tikanga and kawa?

The daughter of a colleague this year undertook a mandatory University of Otago full-year 300 level Jurisprudence course where one semester was focused mostly on Māori concepts of justice. Surely such a course should concentrate on the New Zealand legal system which is based on British Common Law.

The foregoing are just a few examples of current or recent developments and illustrate the nature of changes occurring within New Zealand universities.

Remedial Action by Government?

So, where does all of this leave us? New Zealand University Councils and Vice Chancellors may have chosen that their institutions should be Te Tiriti-led simply in order to acknowledge Treaty principles (as unclear as these may be in practice), but they appear reluctant to push back against indigenisation and decolonisation activism. While it is completely appropriate to include Māori

cultural content optionally in taught courses, it is paramount that our universities continue to meet the Bologna Accord definition of a university, and demonstrate clear political and cultural neutrality, free of any indoctrination. Otherwise, we will see an ongoing loss of international standing, lower international student enrolments, and less international teaching and research collaboration.

What can Governments do when a country's universities are becoming politicised through imposed ideologies? Recognising that Universities normally have a high degree of autonomy, I suggest the following as valid actions:

- (1) Enshrine stronger and more explicit provisions in the Parliamentary Act relating to universities for protection of academic freedom and freedom of speech.
- (2) Decline to provide Government funding subsidies for university courses that contain incontestable content: i.e. indoctrination, whether in relation to traditional cultural knowledge, or to identity politics, for example.
- (3) Require universities to demonstrate through their annual reporting that they are maintaining secularity, political neutrality, curriculum currency, international relevance, and an overarching focus on excellence in their teaching and research.

References

1. Niall Ferguson, "The Treason of the Intellectuals", The Free Press, 11th December 2023. [HERE](#)
2. Niall Ferguson "The Treason of the Intellectuals" – Hoover Institution interview with Peter Robinson 23 January 2024. [HERE](#)
3. Helen Pluckrose and James Lindsay, *Cynical Theories*, Pitchstone Publishing, August 2020. [HERE](#)
4. Helen Pluckrose, *The Counterweight Handbook: Principled Strategies for Surviving and Defeating Critical Social Justice - At Work, in Schools, and Beyond*, Swift Press, 2024.
5. Conor Friedersdorf "Why This Maths Professor Objects to Diversity Statements" *The Atlantic* December 2023. [HERE](#)
6. Eric Kaufmann, "Academic Freedom in Crisis - Punishment, Political Discrimination, and Self-Censorship", Centre for the Study of Partisanship and Ideology, 2nd March 2021. [HERE](#)
7. John Raine, David Lillis, and Peter Schwerdtfeger, "Universities or Indoctrination Centres?" *Breaking Views NZ*, 7th October 2023. [HERE](#) & [HERE](#)
8. Peter Schwerdtfeger, David Lillis, John Raine, "New Zealand's Tertiary Education Sector in Deep Financial Crisis" *Breaking Views NZ*, 13th October 2023
9. New Zealand Qualifications Authority (NZQA): (i) Annual Report on NCEA and New Zealand Scholarship Data and Statistics (2011), April 2012, 84pp; (ii) Annual Report NCEA, University Entrance and NZ Scholarship Data and Statistics (2022), May 2023, 94pp. [HERE](#)
10. Marie, D., Fergusson, D. M. and Boden, J. M. (2008). Educational Achievement in Maori: The Roles of Cultural Identity and Social Disadvantage. *Australian Journal of Education*. 52: 2, 183-196. Article first published online: August 1, 2008; Issue published August 1, 2008. [HERE](#)
- Te Kawehau Hoskins and Alison Jones, "Indigenous Inclusion and Indigenising the University", *New Zealand Journal of Educational Studies*, volume 57, pp 305-320, 2022
11. Gary Judd, KC, "Return of the Primitive – A World of Ignorance and Superstition", Bassett Brash and Hide, 30th August 2024 [HERE](#)
12. Doug Stokes, *Against Decolonisation: Campus Culture Wars and the Decline of the West* 1st Edition, Polity, October 2023
13. New Zealand's Biological Heritage National Science Challenge Media, "Ancient Rongoā Māori practices to fight Kauri dieback are part of a broader revival of indigenous traditional practices in NZ" November 2022 [HERE](#)
14. Robert Anderson, "The Idea of a University Today", *History and Policy*, 1st March 2010. [HERE](#)
15. Kalven Committee Report on the University's Role in Political and Social Action, University of Chicago, 11th November 1967
16. "Magna Charta Universitatum", Bologna, 18th September 1988. [HERE](#)
17. Larry Summers, "What Went Wrong on Campus." *Persuasion* 24th February, 2024, [HERE](#)
18. D. Abbot, A. Bikfalvi, A.L. Bleske-Rechek, W. Bodmer, P. Boghossian, C.M. Carvalho, J. Ciccolini, J.A. Coyne, J. Gauss, P.M.W. Gill, S. Jitomirskaya, L. Jussim, A.I.

Krylov, G.C. Loury, L. Maroja, J.H. McWhorter, S. Moosavi, P. Nayna Schwerdtle, J. Pearl, M.A. Quintanilla Tornel, H.F. Schaefer III, P.R. Schreiner, P. Schwerdtfeger, D. Shechtman, M. Shifman, J. Tanzman, B.L. Trout, A. Warshel, and J.D. West, “In Defense of Merit in Science”.

Journal of Controversial Ideas 2023, 3(1), 1; 10.35995/jci03010001, pp1-26.

19. John Raine, “Cultural High Noon in our Universities”, *Breaking Views NZ*, 19th June 2024. [HERE](#) (published updated and edited in Bassett Brash and Hide 19th June 2024 [HERE](#))

20. James Kierstead, “Unpopular Opinions – academic Freedom in New Zealand”, a report from the New Zealand Initiative, August 2024. [HERE](#)

21. Victoria University of Wellington “Treaty of Waitangi Statute”, 11th February 2019. [HERE](#)

22. Victoria University of Wellington Māori Hub, “Te Tiriti o Waitangi Guide” [HERE](#)

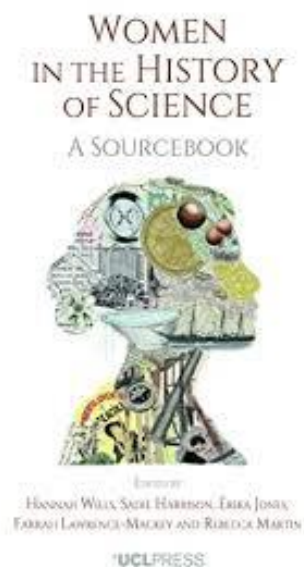
23. “The Common Practice Model – Phase 1: Principles and Pedagogical Approaches”, Curriculum Centre (Te Poutahu), Ministry of Education, 2023.

24. David Lillis, “Is tertiary Education for Learning or Indoctrination.” Bassett Brash and Hide, 1st September 2024 [HERE](#)

- Eight HPS&ST books downloadable gratis [HERE](#)
- *Science & Education* Open Access articles (170) [HERE](#)

Featured Book: *Women in the History of Science: A sourcebook*

Hannah Wills (Editor), Sadie Harrison (Editor), Erika Jones (Editor), Rebecca Martin (Editor), Farrah Lawrence-Mackey (Editor)
University College London Press, 2023, 474 pps,
<https://doi.org/10.14324/111.9781800084155>



Invitation to Submit Opinion Piece

In order to make better educational use of the wide geographical and disciplinary reach of this *HPS&ST Note*, invitations are extended for readers to contribute opinion or position pieces or suggestions about any aspect of the past, present or future of HPS&ST studies.

Contributions can be sent direct to editor. Ideally, they might be pieces that are already on the web, in which case a few paragraphs introduction, with link to web site can be sent, or else the pieces will be put on the web with a link given in the Note.

They will be archived, and downloadable, in the OPINION folder at the HPS&ST web site [HERE](#).

Varia

- Vale George E. Smith (1938-2024). Historian, philosopher, engineer and Newton scholar. [HERE](#)

Women in the History of Science brings together primary sources that highlight women’s involvement in scientific knowledge production around the world. Drawing on texts, images and objects, each primary source is accompanied by an explanatory text, questions to prompt discussion, and a bibliography to aid further research.

Arranged by time period, covering 1200 BCE to the twenty-first century, and across 12 inclusive and far-reaching themes, this book is an invaluable companion to students and lecturers alike in exploring women’s history in the fields of science, technology, mathematics, medicine and culture.

While women are too often excluded from traditional narratives of the history of science, this book centres on the voices and experiences of women across a range of domains of knowledge.

By questioning our understanding of what science is, where it happens, and who produces scientific knowledge, this book is an aid to liberating the curriculum within schools and universities.

Download pdf [HERE](#)

AUTHORS OR PUBLISHERS of suitable HPS&ST books who would like an appropriate Preface, Introduction or First Chapter of their book featured in the newsletter, and placed in the [RESOURCE](#) folder of the HPSST website, should contact newsletter editor [Michael R. Matthews](#)

Golden Oldie: HPS&ST Research from 30+ Years Ago

Good HPS&ST research is clearly written, philosophically informed, well-argued, and has enduring value. Clarity encourages critique and evaluation, where flaws can be identified and corrected. This is a condition for the advance of knowledge.

Much education research is timely. This is useful. But an unfortunate consequence can be that what is timely today might be irrelevant tomorrow. Circumstances change. The research might leave no trace. Conversely, some research can leave a big trace but be philosophically flawed and so do educational and, ultimately, cultural damage.

Good HPS&ST research has a long shelf-life. In defence of this claim, the [HPS&ST Newsletter](#) will identify 30+ years-old articles that had, and still have, philosophical, historical and educational value. They are Golden Oldies.

Third in the series:

[Israel Scheffler](#) 1970, 'Philosophy and the Curriculum'. In his *Reason and Teaching*, London, Routledge, 1973, pp.31-44. Reprinted in *Science & Education* 1992, 1(4), 385-394.

Abstract Long conceived as primarily a professional subject, the philosophy of education has in recent years been developing closer ties with general philosophy. The latter, meanwhile, has grown increasingly aware of the significance of education as an area of reflection and inquiry. This rapprochement has created new opportunities

but also new problems: how, fundamentally, to bring philosophical thought to bear significantly on educational practice?

Downloadable [HERE](#)

Recent HPS&ST Research Articles

- Asli, S., Diab, M., Mara'i, H. et al. (2024). Public Knowledge, Attitudes, and Behaviors Toward Educational Renewable Energy Sources in Arab Society in Israel. *Sci & Educ*, 1-22. <https://doi.org/10.1007/s11191-024-00582-4>
- Beck, P. T. L., & Van Dyck, M. (2024). Good reasons, real questions and proper aims: Hasok Chang on the rationality of the chemical revolution. *International Studies in the Philosophy of Science*, 1–19. <https://doi.org/10.1080/02698595.2024.2418278>
- Cai, Y., Deng, Q., Lv, T. et al. (2024). Impact of GPT on the Academic Ecosystem. *Sci & Educ*, 1-19. <https://doi.org/10.1007/s11191-024-00561-9>
- Chan, K.K.H., Lau, D.S.P. and van Driel, J. (2024), Different Designs, Different Outcomes? A Critical Systematic Review of Interventions for Preparing Preservice Science Teachers to Teach Scientific Models and Modeling. *Science Education*, 1-43 <https://doi.org/10.1002/sce.21911>
- Cheung, K.K.C., Oancea, A. and Erduran, S. (2024), Students' Meaning-Making of Nature of Science: Interaction Between Visual, Verbal, and Written Modes of Representation. *Science Education*, 1-26 <https://doi.org/10.1002/sce.21916>
- Cho, Y. C., & Yeh, T. K. (2024). Dissecting neuromyths in education: an analysis of educators, students, and parents in Taiwan. *International Journal of Science Education*, 1–21. <https://doi.org/10.1080/09500693.2024.2415094>
- Dorji, K., Tshering, P. (2024). Examining Bhutanese Science Teachers' Epistemic Views of Scientific Inquiry. *Sci & Educ*, 1-25. <https://doi.org/10.1007/s11191-024-00572-6>
- Dorji, K., Namgyel, T. (2024). Bhutanese Primary Science Teachers' Epistemic Beliefs of

- Science. *Sci & Educ*, 1-18.
<https://doi.org/10.1007/s11191-024-00563-7>
- Jenkins, A.R., Zaccagnini, G.M. & Hogue, B.C. (2024). Exploring the Perpetuation and Disruption of Gendered, Racial, and Working Style Stereotypes in U.S. Life Science Textbooks. *Sci & Educ*, 1-21.
<https://doi.org/10.1007/s11191-024-00564-6>
- Jones, B. L. (2024). Science Teachers' Conceptions of Science: An Analysis at the Intersection of Nature of Science and Culturally Relevant Science Teaching. *Journal of Research in Science Teaching*, 1–28.
<https://doi.org/10.1002/tea.21984>
- Kaya, E., Erduran, S. (2024). Comparison of Physics, Chemistry, and Biology Teachers' Perceptions of Nature of Science and Domains of Science. *Sci & Educ*, 1-23.
<https://doi.org/10.1007/s11191-024-00576-2>
- Kurt, G., Kaya, E. (2024). Turkish Science Teachers' Views on Nature of Science: Curriculum and Implementation. *Sci & Educ*, 1-30. <https://doi.org/10.1007/s11191-024-00566-4>
- Leite, M.R.V., Gatti, S.R.T. & Reis, G. (2024). Art and Science: A Relationship that Permeates the Construction of Human Knowledge About the World. *Sci & Educ*, 1-16.
<https://doi.org/10.1007/s11191-024-00580-6>
- Lim, J., Yang, J.W., Song, M.H. et al. (2024). Self-Study and Discussion Promote Students' Science Learning. *Sci & Educ*, 1-19.
<https://doi.org/10.1007/s11191-024-00562-8>
- Lima, N.W., Heidemann, L.A. & Garik, P. (2024) Why Teachers (Do Not) Integrate History of Science into Physics Courses: An exploration. *Sci & Educ*, 1-36.
<https://doi.org/10.1007/s11191-024-00571-7>
- Malay, H.A., Çepni, S. & Aydemir, U. (2024). Promoting 21st Century Emerging Technologies in Science Education In Light of Photonics Education Framework. *Sci & Educ*, 1-35. <https://doi.org/10.1007/s11191-024-00570-8>
- Michael, M.T. (2024). Freud, bullshit, and pseudoscience. *Studies in History and Philosophy of Science*, 64-72.
<https://doi.org/10.1016/j.shpsa.2024.09.003>
- Miyata-Sturm, M. E. (2024). Aesthetic Considerations in the Development of Plate Tectonics. *Studies in History and Philosophy of Science*, 1-9.
<https://doi.org/10.1016/j.shpsa.2024.05.004>
- Navare, C. A (2024). “Scientific Fairy Tale” of Origin of Mammals. *Sci & Educ*, 1-28.
<https://doi.org/10.1007/s11191-024-00569-1>
- Özcan, Ş., Zengin, Y. (2024). Teachers' Use of Rational Questioning to Support Students' Collective Argumentation Through 5E-Based Flipped Classroom Approach Using GeoGebra. *Sci & Educ*, 1-22.
<https://doi.org/10.1007/s11191-024-00573-5>
- Pongsophon, P. (2024). Cultivating Environmental Consciousness: Evaluating Plant Genetics Conservation through School Botany Programs in Thailand. *Sci & Educ*, 1-28. <https://doi.org/10.1007/s11191-024-00574-4>
- Rushton, E.A.C., Dunlop, L. (2024). Youth Climate Questions: Challenging Technofixes and a Call for Socio-political Action . *Sci & Educ*, 1-20. <https://doi.org/10.1007/s11191-024-00579-z>
- Shtulman, A. (2024). Conflicting Views of Nature and Their Impact on Evolution Understanding. *Sci & Educ*, 1-20.
<https://doi.org/10.1007/s11191-024-00568-2>
- Tang, J.T., Lin, MH., Jau, YY. et al. (2024). Integrating Science Education Through Cross-Disciplinary Digital Picture Books: “My Helpful Friend Hydrogen”. *Sci & Educ*, 1-27.
<https://doi.org/10.1007/s11191-024-00567-3>
- Vaquero-Martínez, J., Vaquero, J.M. (2024). The Ether Concept from Spanish Physics Textbooks (1840–1950). *Sci & Educ*, 1-19.
<https://doi.org/10.1007/s11191-024-00586-0>
- Yang, Y., Luo, J., Seah, W.T. et al. (2024). Understanding STEM Teachers' Power Distance Values from a Sociocultural Perspective on Interdisciplinary Collaboration. *Sci & Educ*, 1-26.
<https://doi.org/10.1007/s11191-024-00565-5>
- Zhang, Y., Zhang, M., Wu, L. et al. (2024). Digital Transition Framework for Higher Education in AI-Assisted Engineering Teaching: Challenge, Strategy, and Initiatives in China. *Sci & Educ*, 1-22.
<https://doi.org/10.1007/s11191-024-00575-3>

Recent HPS&ST Related Books

Ahmed, S, & Sarkar, S. (2024). *Decolonizing Science and Modernity in South Asia: Questioning Concepts, Constructing Histories*. Berlin, Germany: Springer. ISBN: 978-981-97-1828-3

“This book offers a unique perspective on the colonial roots of modern science, technology, and medicine (STM) in South Asia. The book questions the deconstruction of imperial visions and definitions of science and modernity in South Asia. It presents an in-depth analysis of the contested relationship between science, modernity, and colonialism. It explores how new research can contribute to the diversification of perspectives in the history and sociology of modern South Asian studies. The chapters in the book delve into various aspects of STM in South Asia. It covers diverse topics, including the social, cultural, and pedagogic context of early modern Bengal, the popularization of science in colonial Punjab, the Hindi science periodical *Vigyan*, and the emergence of the Indian science community.

“The book also examines the intersection of indigenous medical practices, ayurveda, Unani, and medical revivalism and highlights peripheral creativity in science. The contributors engage with the existing historiography to raise new questions concerning the global circulations of scientific knowledge from the perspective of South Asia and the regional appropriation of the same. It connects the history of science and modernity with South Asia's socio-economic and cultural background. It offers valuable insights into the decolonization of STM. It greatly interests scholars and students of modern South Asian history, sociology, social anthropology, and Science, Technology and Society Studies (STS).” (from the Publishers)

More information [HERE](#)

Beiser, Frederick C. (2024). *Early German Positivism*. Oxford, UK: Oxford University Press. ISBN: 9780198927259

“In *Early German Positivism*, Frederick C. Beiser explores a much neglected or forgotten

period of the history of philosophy: the history of German positivism from 1860 to 1907. Almost all studies of positivism revolve around the Vienna Circle. Instead, this study covers positivism even before the first Vienna circle (1907). Beiser delves into figures almost completely forgotten in the German and Anglo-American worlds: Theodor Gomperz (1832-1912), Eugen Dühring (1833-1921), Ernst Laas (1837-1885), and Friedrich Jodl (1849-1914); he also examines Ernst Mach (1838-1916) and Richard Avenarius (1843-1896), who are much better known but contemporaries of these thinkers. Several positivist themes unite these thinkers: rejection of the synthetic a priori; opposition to pessimism; a philosophy of monism, naturalism and historicism; and the belief that the highest good can be achieved only under the guidance of science. *Early German Positivism* aims to place positivism in a wider intellectual context, which goes back to the Enlightenment and the opposition to the Christian tradition.” (From the Publishers)

More information [HERE](#)

Bowler, P. J. (2024). *Evolution for the People: Shaping Popular Ideas from Darwin to the Present*. Cambridge, MA: Cambridge University Press. ISBN: 9781009449007

“From Darwin's *The Origin of Species* to the twenty-first century, Peter Bowler reinterprets the long Darwinian Revolution by refocussing our attention on the British and American public. By applying recent historical interest in popular science to evolutionary ideas, he investigates how writers and broadcasters have presented both Darwinism and its discontents. Casting new light on how the theory's more radical aspects gradually grew in the public imagination, *Evolution for the People* extends existing studies of the popularization of evolutionism to give a more comprehensive picture of how attitudes have changed through time. In tracing changes in public perception, Bowler explores both the cultural impact and the cultural exploitation of these ideas in science, religion, social thought and literature.” (From the Publishers)

More information [HERE](#)

Cavanagh, Allison (2024). *Anti-Vaccination and the Media: Historical Perspectives*. London, UK: Palgrave Macmillan Cham. ISBN: 978-3-031-70558-8

“This book explores narratives of vaccine hesitancy using samples from the UK press, and looks at the ways these have changed between the 1950s and the present. The work draws on a variety of research instruments including semantic network analysis and analysis of metaphor to provide a rich description of anti-vaccine narratives in different historical periods.

“The work considers the ways that concerns about and resistance to inoculation were informed by cultural and social pressures in two case studies, firstly that of polio in the 1950s and secondly the so called ‘pertussis crisis’ of the 1970s, wherein a period of social activism and newspaper campaigning led UK and US governments to offer compensation schemes for vaccine damaged children. The studies chosen provide a detailed comparison of the politics of childhood inoculation over two eras in the UK.

“Chapters also cover the use of metaphor and representational analysis in health communication, comparing ways in which the work of Moscovici, Sontag and other theorists can be used to provide complementary insights, and the affordances and concerns around the use of ‘big data’ analyses in historical work. The work also features discussion of the implications of the findings for approaches to more recent vaccination crisis points. This book argues that anti-vaccination narratives, far from showing a stable and coherent set of concerns, are highly mutable. The work compares anti-vaccination and conspiracy theory narratives, drawing out areas of continuity and schism.” (From the Publishers)

More information [HERE](#)

Davis, Edward B. (2024). *Protestant Modernist Pamphlets: Science and Religion in the Scopes Era*. Baltimore, MD: Johns Hopkins University Press. ISBN: 9781421449821

“In the years surrounding the Scopes trial in 1925, liberal Protestant scientists, theologians, and clergy sought to diminish opposition to evolution and to persuade American Christians to adopt more positive attitudes toward modern science. With funding from the Rockefeller Foundation and many leading scientists, the University of Chicago Divinity School published a series of ten pamphlets on science and religion to counter William Jennings Bryan's efforts to ban evolution in public schools.

“In *Protestant Modernist Pamphlets*, historian Edward B. Davis, who discovered these pamphlets, reprints them with extensive editorial comments, annotations, and introductions to each. Based on unpublished correspondence and internal Divinity School documents, these introductions narrate the origin of the pamphlets, as well as their funding sources and how readers reacted to them. Letters from dozens of top scientists at the time reveal their previously unknown views on God and the relationship between science and religion. Viewed together, the pamphlets and Davis's critical assessment of their historical importance provide an intriguing perspective on Protestant modernist encounters with science in the early twentieth century.” (From the Publishers)

More information [HERE](#)

Doolittle, W. F. (2024). *Darwinizing Gaia: Natural Selection and Multispecies Community Evolution*. Massachusetts: MA: The MIT Press. ISBN: 9780262549523

“First conceived in the 1970s, James Lovelock's Gaia Hypothesis proposed that living organisms developed in tandem with their inorganic surroundings, forming a complex, self-regulating system. Today, most evolutionary biologists consider the theory problematic. In *Darwinizing Gaia*, W. Ford Doolittle, one of evolutionary and molecular biology's most prestigious thinkers, reformulates what evolution by natural selection is while legitimizing the controversial Gaia Hypothesis. As the first book attempting

to reconcile Gaia with Darwinian thinking, and the first on persistence-based evolution, Doolittle's clear, innovative position broadens evolutionary theory by offering potential remedies for Gaia's theoretical challenges.

“Unquestionably, the current “polycrisis” is the most complex that Homo sapiens has ever faced, and this book can help overcome the widespread belief that evolutionary biologists don't believe Lovelock. Written in the tradition of Richard Dawkins's *The Selfish Gene*, *Darwinizing Gaia* will appeal to students, evolutionary scientists, philosophers, and microbiologists, as well as environmentalists seeking to understand the Earth as a system, at a time when climate change has drawn our planet's structure and function into sharp relief.” (From the Publishers)

More information [HERE](#)

Hewitt, Martin (2024). *The Reception of Darwinian Evolution in Britain, 1859–1909: Darwinism's Generations*. Oxford, UK: Oxford University Press. ISBN: 9780192890993

“*The Reception of Darwinian Evolution in Britain, 1859-1909: Darwinism's Generations* uses the impact of Charles Darwin's *On the Origin of Species* (1859) in the 50 years after its publication to demonstrate the effectiveness of a generational framework for understanding the cultural and intellectual history of Britain in the nineteenth century. It challenges conventional notions of the 'Darwinian Revolution' by examining how people from across all sections of society actually responded to Darwin's writings.

Drawing on the opinions and interventions of over 2,000 Victorians, drawn from an exceptionally wide range of archival and printed sources, it argues that the spread of Darwinian belief was slower, more complicated, more stratified by age, and ultimately shaped far more powerfully by divergent generational responses, than has previously been recognised. In doing so, it makes a number of important contributions. It offers by far the richest and most comprehensive account to date of how

contemporaries came to terms with the intellectual and emotional shocks of evolutionary theory. It makes a compelling case for taking proper account of age as a fundamental historical dynamic, and for the powerful generational patternings of the effects that age produced. It demonstrates the extent to which the most common sub-periodisation of the Victorian period are best understood not merely as constituted by the exigencies of events, but are also formed by the shifting balance generational influence.

“Taken together these insights present a significant challenge to the ways historians currently approach the task of describing the nature and experience of historical change, and have fundamental implications for our current conceptions of the shape and pace of historical time.” (From the Publishers)

More information [HERE](#)

Hobson, Art (2024) *Fields and Their Quanta: Making Sense of Quantum Foundations*, Springer, Cham
DOI <https://doi.org/10.1007/978-3-031-72613-2>

“Because of continuing debates about foundational issues as well as the recent consensus about non-locality, it is time to resolve the long-standing quantum enigmas. These include wave-particle duality, the double-slit experiment, quantum randomness, entanglement, superpositions, and measurement.

“This book presents that resolution, based on the insights that (1) quantum field theory tells us that reality comprises a set of universal quantized fields that fill the universe and (2) standard quantum mechanics is the non-relativistic limit of quantum field theory. An immediate consequence is that there are no particles and that quanta such as photons and electrons are highly unified (“coherent”), spatially extended bundles of field energy. Every quantum object is always a wave in a field. It is never a particle.

“As Steven Weinberg puts it, “The basic ingredients of nature are fields; particles are

derivative phenomena." This immediately resolves, for one example, the puzzle of the double-slit experiment in which quanta such as photons and electrons individually interfere like waves as they pass through the slits yet they impact the screen like tiny particles. The resolution: each photon or electron is actually a wave that extends coherently across both slits and across the entire interference pattern, and collapses to a far smaller, atom-sized wave (not a particle) upon entangling non-locally with the screen. Thus quantum physicists can finally get their act together. It's about time:

"After more than 120 years, quantum physics still harbors embarrassing puzzles and physicists remain unable to reach a consensus about what the theory means. Large questions like "What is quantum physics about?" and "What is the meaning of the quantum state?" elicit diverse replies, all different yet all offered with supreme confidence. Every science has healthy differences of opinion, but quantum physics is beyond the pale.

"As *Fields and their Quantashows*, we can dispense with the diverse interpretations such as consciousness-based views, the hypothesis that other universes are involved in wave function collapse, and the Copenhagen view that there is no quantum world. We can probably also dispense with the suggested reformulations such as the guiding wave hypothesis and various collapse mechanisms, although experimental tests of these are worth doing. Most of these are inspired by the measurement problem, but recent clarification concerning entanglement and non-locality shows that the measurement process is not paradoxical, and that standard quantum physics predicts collapse to a single outcome.

Quantum physics can thus return to being a normal, objective, scientific endeavor with no special interpretation outside of standard (since Copernicus) scientific realism: Nature exists on its own with no need for observers, and we learn about nature by applying logical reasoning to natural phenomena as revealed by observation and experiment."

More information [HERE](#)

Ivanova, M., & Murphy, A. (Eds.) (2024). *The Aesthetics of Scientific Experiments*. Milton Park, UK: Routledge. ISBN: 9781032205076

"The relationship between aesthetics and science has begun to generate substantial interest. However, for the most part, the focus has been on the beauty of theories, and other aspects of scientific practice have been neglected. This book offers a novel perspective on aesthetics in experimentation via ten original essays from an interdisciplinary group comprised of philosophers, historians of science and art, and artists.

The collection provides an analysis of the concept of beauty in the evaluation of experiments. What properties do practising experimenters value? How have the aesthetic properties of scientific experiments changed over the years? Secondly, the volume looks at the role that aesthetic factors, including negative values such as ugliness, as well as experiences of the sublime and the profound, play in the construction of an experiment and its reception. Thirdly, the chapters provide in-depth historical case studies from the Royal Society, which also allows for a study of the depiction of scientific experiment in artworks, as well as contemporary examples from the Large Hadron Collider and cases of experiments designed by artificial intelligence. Finally, it offers an exploration of the commonalities between how we learn from experiments on the one hand and the cognitive value of artworks on the other.

"*The Aesthetics of Scientific Experiments* will be of interest to researchers and advanced students working in philosophy and history of science, philosophy and history of art, as well as practising scientists and science communicators." (From the Publishers)

More information [HERE](#)

Nicoglou, A. (2024). *Plasticity in the Life Sciences*. Chicago, IL: The University of Chicago Press. ISBN: 9780226837147

“Plasticity has become an important topic in biology, with some even wondering if it has now acquired the theoretical importance in biology that the concept of the gene enjoyed at the beginning of the last century. In this historical and epistemological study, philosopher Antonine Nicoglou shows how the recurrence of the general idea of plasticity—throughout the history of the life sciences—indicates its essential role in the way we think about life processes. Although plasticity has become a key element in new evolutionary thinking, she argues, its role in contemporary biology is also not insignificant. Rather, as mobilized in contemporary biology, plasticity most often seeks to account for the specific nature of living systems.

“The book is divided into two parts. The first takes up the history of plasticity from Aristotle to contemporary biology; the second part offers an original way of distinguishing between different phenomena described by “plasticity.” In the process, the author explores what has led some biologists to speak of plasticity as a way of overcoming genetic determinism.” (From the Publishers)

More information [HERE](#)

Pamuk, Zeynep (2024). *Politics and Expertise: How to Use Science in a Democratic Society*. Princeton, NJ: Princeton University Press. ISBN: 9780691219264

“Our ability to act on some of the most pressing issues of our time, from pandemics and climate change to artificial intelligence and nuclear weapons, depends on knowledge provided by scientists and other experts. Meanwhile, contemporary political life is increasingly characterized by problematic responses to expertise, with denials of science on the one hand and complaints about the ignorance of the citizenry on the other.

“*Politics and Expertise* offers a new model for the relationship between science and democracy, rooted in the ways in which scientific knowledge and the political context of its use are imperfect. Zeynep Pamuk starts from the fact that science is uncertain,

incomplete, and contested, and shows how scientists’ judgments about what is significant and useful shape the agenda and framing of political decisions. The challenge, Pamuk argues, is to ensure that democracies can expose and contest the assumptions and omissions of scientists, instead of choosing between wholesale acceptance or rejection of expertise.

To this end, she argues for institutions that support scientific dissent, proposes an adversarial “science court” to facilitate the public scrutiny of science, reimagines structures for funding scientific research, and provocatively suggests restricting research into dangerous new technologies.

“Through rigorous philosophical analysis and fascinating examples, *Politics and Expertise* moves the conversation beyond the dichotomy between technocracy and populism and develops a better answer for how to govern and use science democratically.” (From the Publishers)

More information [HERE](#)

Perez, Myrna (2024). *Criticizing Science: Stephen Jay Gould and the Struggle for American Democracy*. Baltimore, MD: Johns Hopkins University Press. ISBN: 9781421450179

“The question of public trust in science feels newly urgent, but today is not the first time that opposing ends of the American political spectrum have critiqued modern science. This dynamic has historical roots in the early 1970s, when critiques of science emerged simultaneously out of Civil Rights, feminist, and decolonization movements on the left, as well as within the creationism of the Christian Right.

In *Criticizing Science*, Myrna Perez follows the public career of evolutionary biologist, political leftist, and anti-creationist Stephen Jay Gould during the final decades of the American twentieth century. Gould believed that denaturalizing scientific objectivity could be part of the greater work of racial and gender justice in the United States. Perez shows the

promises and limitations of Gould's view—most famously expressed in his 1981 book *The Mismeasure of Man*—that the collective self-reflection on the history of scientific bias would lead to a better, less oppressive science. She argues that we must instead contend with the radical possibilities that are opened by working for a resolutely democratic science.

“By centering Gould, Perez clarifies divides among left, liberal, and right-wing movements over evolutionary science during the rise of the Christian Right and the expansion of academic feminism. These divides continue to shape contemporary debates over climate change, vaccines, abortion policy, and the nature of gender in present-day American politics.”
(From the Publishers)

More information [HERE](#)

Ruse, M. (2024). *Charles Darwin: No Rebel, Great Revolutionary*. Cambridge, MA: Cambridge University Press. ISBN: 9781009438971

“Charles Darwin's theory of evolution was one of the most significant revolutions in the history of science. Widely debated after the publication of the *Origin of Species* in 1859, it continues to be controversial. In this volume, Michael Ruse offers the definitive history of the theory of evolution through natural selection. Tracing Darwin's intellectual journey and experiences that lead him to his novel insights, Ruse explores his scientific contributions as well as their relationship to philosophical issues and religious implications, as well as being both inspiration and challenge to novelists and poets. He also shows how the Darwin's ideas continue to have contemporary relevance, as they shed light on social issues and problems, such as race, sexual orientation and the connections between Darwin's thinking to that of Sigmund Freud, and the status of women, including the possibility and desirability of social change.

“Written in an engaging, non-technical style, Ruse's volume serves as an ideal introduction to the ideas of one of the key figures in the

history of modern science.” (From the Publishers)

More information [HERE](#)

Turkheimer, E. (2024). *Understanding the Nature–Nurture Debate*. Cambridge, MA: Cambridge University Press. ISBN: 9781108955775

“There are arguably few areas of science more fiercely contested than the question of what makes us who we are. Are we products of our environments or our genes? Is nature the governing force behind our behaviour or is it nurture? While it is now widely agreed that it is a mixture of both, discussions continue as to which is the dominant influence. This unique volume presents a clear explanation of heritability, the ongoing nature versus nurture debate and the evidence that is currently available. Starting at the beginning of the modern nature-nurture debate, with Darwin and Galton, this book describes how evolution posed a challenge to humanity by demonstrating that humans are animals, and how modern social science was necessitated when humans became an object of natural science. It clearly sets out the most common misconceptions such as the idea that heritability means that a trait is 'genetic' or that it is a justification for eugenics.” (From the Publishers)

More information [HERE](#)

Veprek, L. H. (2024). *At the Edge of AI: Human Computation Systems and Their Intraverting Relations*. New York, NY: Columbia University Press. ISBN: 9783837672282

“How are human computation systems developed in the field of citizen science to achieve what neither humans nor computers can do alone? Through multiple perspectives and methods, Libuse Hannah Veprek examines the imagination of these assemblages, their creation, and everyday negotiation in the interplay of various actors and play/science entanglements at the edge of AI. Focusing on their human-technology relations, this ethnographic study shows how these

formations are marked by intraversions, as they change with technological advancements and the actors' goals, motivations, and practices. This work contributes to the constructive and critical ethnographic engagement with human-AI assemblages in the making.” (From the Publishers)

More information [HERE](#)

Authors of HPS&ST-related papers and books are invited to bring them to attention of the Newsletter's assistant editor Paulo Maurício (paulo.asterix@gmail.com) for inclusion in these sections.

PhD Awarded in HPS&ST

We welcome publishing details of all PhDs awarded in the field of HPS&ST. Send details (name, title, abstract, supervisor, web link) to editor: m.matthews@unsw.edu.au

Coming HPS&ST Related Conferences

December 5-7, 2024, 8th Pan-Hellenic Conference on Philosophy of Science, Athens

Details: [HERE](#)

March 6-10, 2025, US Philosophy of Education Society, PES, annual conference, Baltimore.

Details: [HERE](#)

March 23-26, 2025, NARST Annual Conference, National Harbour, Maryland, USA

Details: [HERE](#)

March 27-29, 2025, Integrated History and Philosophy of Science, 10th conference. CIT Pasadena, CA

Details: [HERE](#)

March 27-28, 2025, Workshop on Scientific Pluralism, Epistemic Diversity, and Progress in Science. University of Wuppertal
Submissions by 15 November

Details: [HERE](#)

June 29-July 5, 2025 International Congress of Science and Technology, Dunedin, New Zealand

Details: [HERE](#)

July 20-25, 2025 ISHPSSB Conference, University of Porto.

Details: [HERE](#)

August 25-29, 2025, European Science Education Research Association, biennial conference, Copenhagen

Details: [HERE](#)

22-25 June 2026, 8th ICASE World Conference on Science & Technology Education, University College, Cork, Ireland

Details: [HERE](#)

HPS&ST Related Organisations and Websites

[IUHPST](#) – International Union of History, Philosophy, Science, and Technology

[DLMPST](#) – Division of Logic, Mathematics, Philosophy, Science, and Technology

[DHST](#) – Division of History, Science, and Technology

[IHPST](#) – International History, Philosophy, and Science Teaching Group

[NARST](#) - National Association for Research in Science Teaching

[ESERA](#) - European Science Education Research Association

[ASERA](#) - Australasian Science Education Research Association

[ICASE](#) - International Council of Associations for Science Education

[UNESCO](#) – Education

[HSS](#) – History of Science Society

[ESHS](#) – European Society for the History of Science

[AHA](#) – American History Association

[FHPP APS](#) - Forum on History and Philosophy of Physics of the American Physical Society

[HAD AAS](#) - Historical Astronomy Division of the American Astronomical Society.

[ACS HIST](#) – American Chemical Society Division of the History of Chemistry

[GWMT](#) - Gesellschaft für Geschichte der Wissenschaften, der Medizin und der Technik

[ISHEASTME](#) – International Society for the History of East Asian History of Science Technology and Medicine

[EASE](#) - East-Asian Association for Science Education

[BSHS](#) – British Society for History of Science

[EPSA](#) - European Philosophy of Science Association

[AAHPSSS](#) - The Australasian Association for the History, Philosophy, and Social Studies of Science

[HOPOS](#) – International Society for the History of Philosophy of Science

[PSA](#)– Philosophy of Science Association

[BAHPS](#) - Baltic Association for the History and Philosophy of Science

[BSPS](#) – The British Society for the Philosophy of Science

[SPSP](#)- The Society for Philosophy of Science in Practice

[ISHPSB](#) - The International Society for the History, Philosophy, and Social Studies of Biology

[PES](#)– The Philosophy of Education Society (USA)

The above list is updated and kept on the HPS&ST website at: [HERE](#)

HPS&ST related organizations wishing their web page to be added to the list should contact assistant editor Paulo Maurício: paulo.asterix@gmail.com

HPS&ST NEWSLETTER PERSONNEL

Editor

Assistant Editor (Publications & Website

Assistant Editor

Michael Matthews

Paulo Maurício

Sophia Jeong