

## Vale: Robert Nola (1940-2022)

Robert Nola, professor Emeritus of Philosophy at the University of Auckland, New Zealand died on 23 October 2022. He was 82 years old. Robert is survived by his life-long partner Jan Crosthwaite, who was also a professor of philosophy in the same university.

Born in 1940, Robert Nola was an eminent philosopher of science. He was the son of a Croatian fisherman who had migrated to New Zealand in the 1930s and married; he was the first person in his family to attend university. He held a Bachelor of Science degree from the University of New Zealand, a Master of Science degree in Mathematics and a Master of Arts degree in philosophy, both from the University of Auckland. He obtained his PhD from the Australian National University, writing a thesis on *Theoretical change in the physical sciences: A study of theory reduction and theory replacement in science*, under the supervision of John Passmore. In 1971 he returned to the University of Auckland as a Lecturer in Philosophy and continued his academic career there until he retired as Professor of Philosophy in 2016.



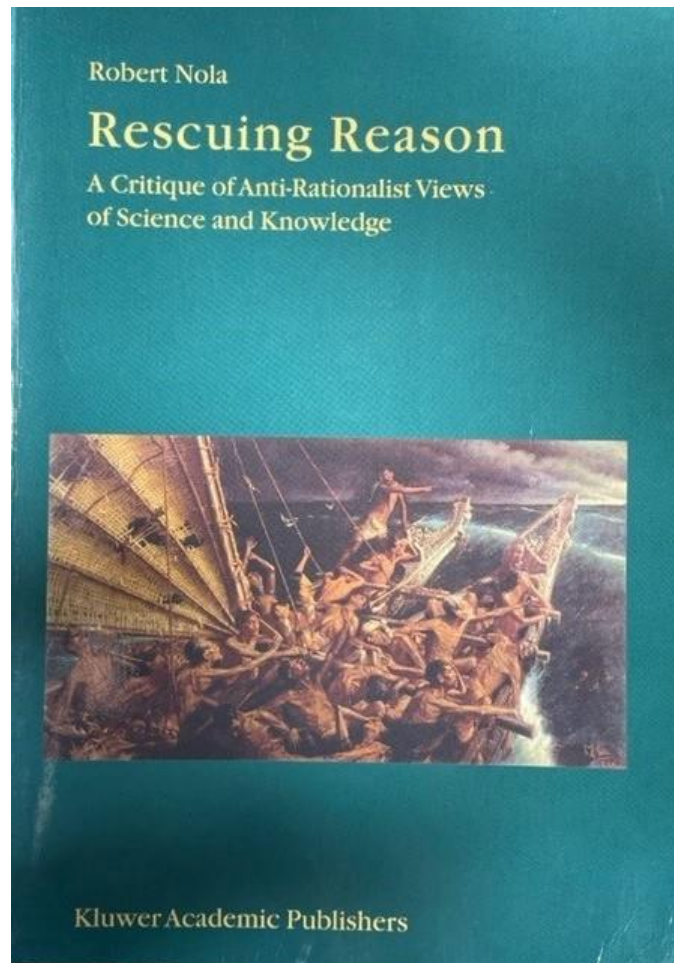
Nola held many visiting positions, including those at the Centre for Philosophy of Science in Pittsburgh and Boston Universities; the Department of History and Philosophy of Science,

University of Cambridge; the Department of Philosophy at the University of Maryland, College Park; the Department of Philosophy, Uppsala University; and the Department of Philosophy, Bogazici University, Istanbul.

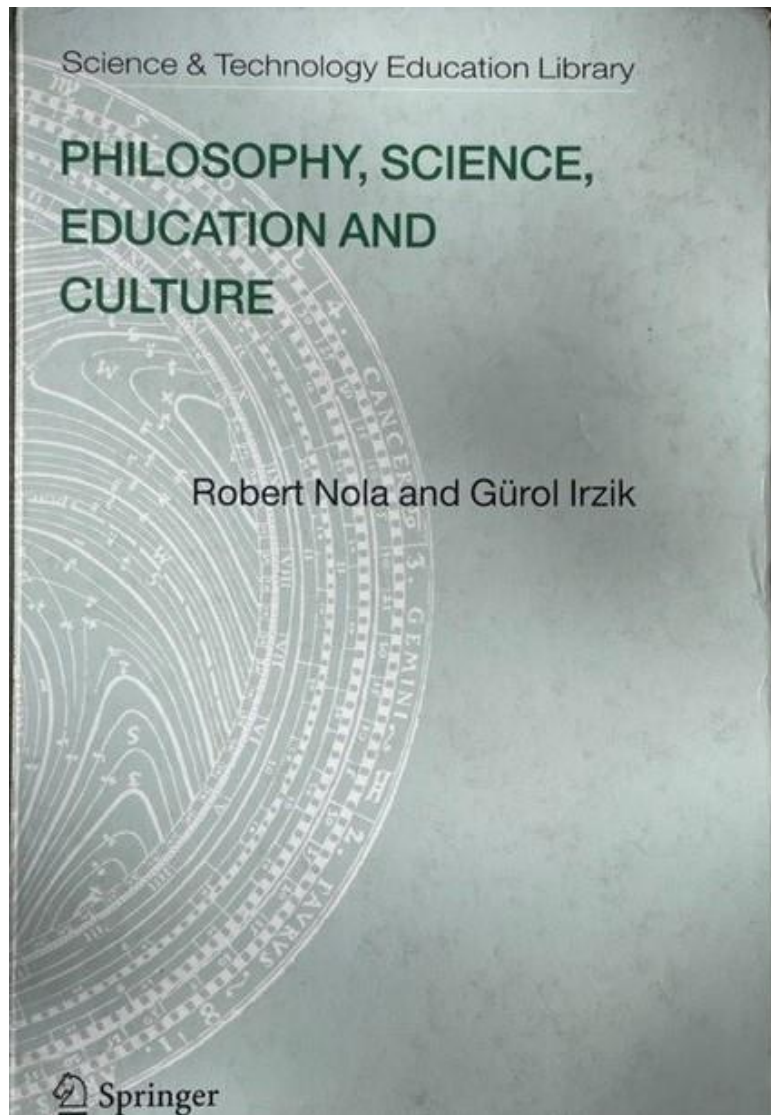
He was a prolific philosopher of science with wide ranging interest in metaphysics, epistemology, and science education. He was the author and co-author of three books, editor and co-editor of five books, and the author and co-author of more than 80 articles and book chapters. Clarity and incisiveness, colored with wit, were hallmarks of his style. A wonderful example is his article, 'There Are More Things in Heaven and Earth, Horatio, Than Are Dreamt of in Your Philosophy: A Dialogue on Realism and Constructivism' (Nola 1994).

Nola was a staunch defender of scientific realism and a fierce critic of anti-rationalist philosophical and social positions. In his book *Rescuing Reason* (Nola 2003) he presented a powerful critique of sociological accounts of knowledge and truth, including those of Marx, Mannheim, the Edinburgh school of sociology of scientific knowledge, Foucault and Nietzsche. The book critically appraised the views of Quine, Kuhn and Feyerabend. In his *Theories of Scientific Method*, which he co-authored with Howard Sankey (Nola & Sankey 2007), he provided a comprehensive discussion of scientific methodology and meta-methodology.

In both books, and in a number of influential articles, he defended a realist and normative account of scientific knowledge and rationality. One of his profound insights is that anti-rationalist and anti-realist accounts of knowledge and science presuppose much of the normative and realist theory they aim to replace.



Nola engaged with a multitude of philosophical issues occasioned by science education. This engagement followed the 1992 appointment of Michael Matthews as Foundation Professor of Science Education at the University of Auckland (Matthews 2021, chap.7). They shared an Enlightenment conviction about the interdependence of science and philosophy (Nola 2018, Matthews 2022a), the social and cultural importance of science education, and the necessity of good philosophy for understanding and addressing serious social, cultural, and educational issues. Nola contributed articles to the new (1992) Kluwer journal *Science & Education: The Contribution of History, Philosophy and Sociology of Science* of which Matthews was the founding editor, he joined its Editorial Committee, presented papers to conferences of the International History, Philosophy and Science Teaching Group, contributed to the *HPS&ST Handbook* (Matthews 2014), and joined in large-scale national debates about the New Zealand science curriculum (Matthews 1995). Although there were seven philosophy departments in the country, Nola was the only philosopher to put time and energy into educational debate.



Nola's first papers in science education date back to his participation in the 1995 third IHPST conference (Nola 1995). The early papers present devastating criticisms of constructivist philosophical and pedagogical views which dominated New Zealand science education and had significant worldwide influence at the time. His book *Philosophy, Science, Education and Culture* (Nola & Irzik 2005) placed critical inquiry at the core of education, criticizing the social constructivist, postmodernist and epistemic multiculturalist accounts of science. In collaboration with Gürol Irzik, he also developed the family resemblance approach to nature of science for science education, which was subsequently taken up by key researchers in the field who turned it into a full-blown research program (Erduran & Dagher 2014).

Much of the final two years of Nola's life was occupied by a New Zealand debate which culminated in his February 2022 resignation from the Royal Society New Zealand (RSNZ). The debate was occasioned by his public stand on a philosophically-charged science education issue: Namely, whether Mātauranga Māori (Māori ways of knowing, or Māori lore) should be included as science in the New Zealand school curriculum, or placed there as social studies. Nola defended the latter position. He argued that Māori lore lacks the essential methodology of science; its programme was subordinate to cultural interests; there is no evidence for the existence of key Māori explanatory entities or mechanisms such as Mauri;



and that making modern science and Māori lore equivalent does historical and philosophical injustice to both. This was the New Zealand expression of an international argument about understanding and utilizing indigenous knowledge in school programmes (Matthews 2022b [HERE](#)).

Nola's arguments were presented in a co-authored 2019 Opinion Piece in the HPS&ST Newsletter (Nola, Corballis & Rata 2019) that can be read [HERE](#). They were repeated in a July 2021 letter, co-authored with seven University of Auckland professors (dubbed 'the defenders of science') to *The Listener*, a national magazine (Nola et al. 2021). Along with much else, the letter said:

To accept it [Mātauranga Māori] as the equivalent of science is to patronize and fail indigenous populations; better to ensure that everyone participates in the world's scientific enterprises. Indigenous knowledge may indeed help advance scientific knowledge in some ways, but it is not science. (Nola et al. 2021)

The letter's publication occasioned something of a national upheaval that roiled on for six months. Immediately the University of Auckland Vice-Chancellor condemned the professors saying the letter 'caused considerable hurt and dismay among our staff, students and alumni'. The Auckland School of Biological Sciences labelled the professors 'unsafe', advising students not to enrol in their classes. Within four days, the National Association of Scientists rejected the claims of the defenders. Within two weeks, 2,000+ academics and teachers across the country signed an 'Open Letter' petition denouncing the professors as racist and, surprisingly as Nola was one of the authors, of not understanding the nature of science.

Disciplinary procedures were initiated within the RSNZ when a number of complaints were made against three of the defenders who were Fellows of the Society - Nola, Corballis and Cooper. They were, among other things, charged with 'not acting in a manner consistent with the Society's object and functions' and having a 'narrow and out-moded definition of science'. After several months of investigation, and legal argument, the Society's Investigation Committee decided to take no further action on the complaints. A week after their February 2022 'exoneration' Nola and Cooper resigned from the Society. Corballis had died during the proceedings.

Nola, and co-defenders, argued that, in New Zealand, pupils should learn central tenets of Mātauranga Māori, such as the notion of Mauri:

Mauri is the life spark or essence inherent in all living things that has been passed down from ancestors through whakapapa. Mauri affects and is affected by the surrounding environment. It is a motivating force and also encapsulates a process of change from Mauri moe, a state where potential is as yet unrealised; through Mauri oho, sparks of interest and the realisation that change is possible; to Mauri ora, an action-oriented stage of striving towards full potential. (Gisborne County Council, water-quality monitoring instruction)

But learn about this in social studies at school, or anthropology in university, not in science in either. They acknowledged that a separate consideration is whether other non-Māori, notably Asian or traditional Christian, worldviews should be taught and accommodated in the school curriculum.

Matters of great cultural, philosophical, and educational moment were at issue in a small country. That Garth Cooper, an Auckland professor of biochemistry and New Zealand's most

eminent Māori scientist, was a co-author of *The Listener* letter, was equally to be sanctioned by RSNZ, and also resigned from the Society—confirmed Nola’s convictions in the argument. Informed and careful philosophical thinking was of the essence for resolution of the controversy, and indeed for the future of science in New Zealand. Nola provided both. The seven ‘defenders of science’ received near zero public support from the nation’s academic establishment; there was no marching in the streets or even marching in quadrangles. This was no surprise to Nola, but nevertheless he was deeply disappointed. Details of how the debate unfolded can be read in a March 2022 HPS&ST Opinion Piece (Matthews 2022b [HERE](#)) and a 2022 Jerry Coyne note [HERE](#).

Nola’s passing is a great loss not only to his family and his friends, who were fortunate to know him, but also to the history, philosophy and science teaching community.

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**Michael Matthews**, School of Education, University of New South Wales, Australia

### **Gürol Irzik: A personal appreciation**

I met Robert and his wife Jan during the Fall semester of 1995, when we were fellows at the Center for Philosophy of Science in Pittsburgh University. This was the beginning of a long friendship and collaboration. I was privileged to be the co-author of his book on education (Nola & Irzik 2005), and articles on the family resemblance approach to nature of science in science education (Irzik & Nola 2011, 2014, 2022) as well as several other articles, including one on Lyotard’s post-modernist views on knowledge and science (Nola & Irzik 2003).

When I was at Bogazici University, we were very fortunate to have, several times, Robert as a visiting professor. It was a great pleasure to teach together with him and to see how he touched the lives of so many students, both academically and intellectually. Robert, Jan, my wife, and I took a memorable trip along the Aegean coast of Turkey and visited many historical sites, including Gallipoli and of course the Anzac Cove, Assos, Troy and Pergamon. It was an intellectual feast to benefit from Robert’s deep knowledge of history. When we visited them in Auckland, we felt at home thanks to Robert’s and Jan’s warm hospitality. This is when we discovered that Robert was also a talented cook and a connoisseur.

We also met during many conferences in Europe and had regular contact with each other. Robert was a true intellectual interested in all aspects of culture and the political affairs of the world. He was a voice of reason, a wonderful, kind and courageous person with a unique sense of humor. He had high intellectual standards and academic integrity, which led him to resign from the Royal Society of New Zealand, of which, for decades, he had been a Fellow. Despite these major travails, and his increasing medical problems, Robert pushed on conscientiously with revisions of our co-authored article on family resemblance ideas of NOS as applied to education (Irzik & Nola 2022). His final publication.

Robert’s life set an example for us all.

### **Selective Publications**

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- Nola, R.: 2004, 'Pendula, Models, Constructivism and Reality', *Science & Education*, 13 2004, 349-77.
- Nola, R.: 2018, 'The Enlightenment: Truths Behind a Misleading Abstraction'. In M.R. Matthews (ed.) *History, Philosophy and Science Teaching: New Perspectives*, Springer, Dordrecht, pp.43-66.
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