



Bob Meyer
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Robert Kenneth (Bob) Meyer died in Canberra on 6 May 2009, at the age of seventy-six after a long struggle with cancer. He was one of the world's leading researchers in non-classical logics, principally relevant logic, and a major figure in these fields and logic and philosophy more generally, in Australia.

He was born in Philadelphia on 27 May 1932, and in 1956 received a Bachelor of Divinity from the Princeton Theological Seminary. He had deeply held religious beliefs, which he maintained his whole life, and decided to become a missionary in Japan. He studied Japanese in Kyoto, which native speakers said later he had mastered well, though Bob was always characteristically modest about his linguistic abilities. He then worked at the Christian Institute of Industrial Relations in Osaka from 1959 to 1962, and his first published paper in fact grew out of this work.

He began to have growing uncertainty, though, about the foundations of his religious beliefs, and from this period probably grew his interest in logic and philosophy. He believed theology needed to be put on more formal mathematical and logical foundations, going so far as to write expressing these views to Bertrand Russell, then arguably the world's most famous philosopher. His investigations as to what was the leading place in the United States to study logic and philosophy took him to the University of Pittsburgh. There he worked for a while, initially with Nicholas Rescher in 1964, on translating from Ancient Greek the commentary of Alexander of Aphrodisias on one of Aristotle's works in logic, having acquired Greek and Latin during his studies at the Princeton Theological Seminary. This translation remains unpublished.

All this was but a prelude to the work in relevant logics and other non-classical logics that was to dominate the rest of his life and academic career. He began around 1965 to work in this area with the distinguished logician and philosopher Nuel Belnap who supervised his PhD, which he obtained in 1966, and with Alan Ross Anderson. Relevant logics roughly are logics that require that the premises and conclusion of an

argument are 'relevant' to each other, as opposed to so-called classical logic where there is no such requirement.

Anderson and Belnap were responsible for the basic formalisation of these logics in the late '50s and early '60s and some of the key initial results concerning them (and they continued to make major contributions), but it was Meyer and a series of outstanding collaborators such as J. Michael Dunn and Richard Routley (later Sylvan), and others such as Alasdair Urquhart and Kit Fine, who can be said to have developed the fully technically mature understanding of these logics by, for example, providing them with a Kripke-style semantics that became known as the Routley-Meyer semantics (basically a way of making sense of a whole range of such logics and proving highly generalisable) and a related algebraic understanding, developing number theory based on these logics (what became known as relevant Peano arithmetic) and exploring the relationship between some of the weaker forms of these logics and type theory.

In fact, Anderson had taken stock of the field in a 1963 paper ('Some open problems concerning the system E of entailment', *Acta Philosophica Fennica*, 16 (1963), 7–18) where he listed a series of open problems that he believed needed to be solved in order to significantly advance the field, and it was Meyer, sometime in collaboration with others, who was responsible for the solution of most of these. Also noteworthy were a large number of papers, published and unpublished, on the theory of truth, which have been highly regarded.

His logical work was of the very highest order. It was characterised by enormous intellectual power and deep and extraordinary insight. The papers he wrote are characterised by wonderful clarity and precision, as well as a style of wit and whimsy that was uniquely his. It was always a pleasure to read a new paper from him. He published roughly 200 items during his career and over half of these are co-authored, which was a testimony to the enthusiastic way he collaborated with his colleagues all around the world. He was also remarkably generous with credit, as many people would discover when they found that a productive blackboard discussion would result two days later in a perfectly composed paper ready for journal submission of which they were now co-author, or in which they were at a minimum handsomely credited in a footnote.

But he could have published much more and his contributions recognised even more widely. He disliked revising manuscripts – he either wrote a paper to completion or it rarely got finished, unless it was written with a co-author who was prepared to take on the task. Maybe as much as half of his written work lies unpublished and relatively unknown, but much of it is superb. Hopefully it will all eventually be made available electronically to the great benefit and gain of future generations of researchers and scholars.

Meyer had somewhat of a peripatetic academic career between 1965 and 1974 when he taught successively at West Virginia University, Rice University, Bryn Mawr College, Indiana University, and the universities of Toronto and Pittsburgh.

Inexplicably Meyer had not received tenure at Indiana University (where, ironically, I am now President). But Richard Routley was able to secure him a post-doctoral position in the Department of Philosophy in the Research School of Social Sciences in the Institute of Advanced Study at the Australian National University in late 1974. Here, to the enormous credit of the ANU, through the successive heads of the Department – John Passmore, Jack Smart and Frank Jackson – successive RSSS directors – Sandy Youngson, Max Neutze and Paul Bourke – and the then ANU Deputy Vice Chancellor Ian Ross, Meyer's brilliance was quickly recognised and he was rapidly promoted to Senior Research Fellow (1976), Senior Fellow (1981) and Full Professor (1992) until his retirement in 1998. He became a Fellow of the Australian Academy of the Humanities in 1982 in recognition of his eminent academic contributions.

Meyer made further major contributions with a series of highly talented students who completed PhDs with him, including Errol Martin, John Slaney, Steve Giambrone, Paul Thistlewaite and Jacques Riche. I also had the unforgettable privilege of being Bob Meyer's PhD student between 1975 and 1979. Meyer was an inspiring if unorthodox teacher – unorthodox in that he worked nocturnally much of his career and his students needed at least in part to adopt this lifestyle. In fact, he commented once that he was unsuited for a 24-hour day and would prefer a 36-hour one so he could work twenty-four hours and sleep twelve. He could work extraordinarily hard for lengthy periods of time and his output, nearly always of sustained excellence, could be prodigious.

He was in many ways the heart and soul of the longstanding logic group at the ANU and was the first to recognise the enormous impact computation could have on logical research, famously commenting that they would make logic, long the most theoretical of disciplines, an empirical one. This led to the transformation of the Logic Group in 1984 into the Automated Reasoning Project, of which Meyer was the founding director, and the work in particular of Slaney (on logical matrix generation), Thistlewaite and the author of this obituary (on automated theorem proving) grew out of Meyer's original insights.

In academic life one regularly meets numerous highly intelligent people, but one meets few geniuses. Bob was one of those few. His brilliance and extraordinary creativity, especially during the '70s and early '80s, was of a level of sustained excellence one is lucky to see once in a lifetime. I believe all his students and colleagues who worked with him, or who were familiar with his work, felt that they were in the presence of a genuinely unique intellectual force. His personal generosity and kindness were remarkable; his eccentricities legendary. He adored his family of whom he was always proud. He was loved, admired and respected by nearly everyone who he met.

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