In Memoriam

Professor Sir Clive Granger, 1934-2009



[Clive Granger in the Department of Economics, University of Canterbury, New Zealand, 8 October 2003]

C.W.J. Granger passed away on 27 May 2009 at Scripps Memorial Hospital in La Jolla, California, USA, leaving his family, friends, current and former students, and all who knew and loved him, in deep mourning.

Clive William John Granger was born on 4 September 1934 in Swansea. Soon thereafter, his parents moved to Lincoln and during the Second World War his father enlisted in the RAF. His mother took him to Cambridge, and then Nottingham where, at West Bridgford Grammar School, he showed some promise as a mathematician and foresaw a career in insurance or meteorology. He was one of the original intake for the joint degree in Economics and Mathematics at the University of Nottingham.

After graduating with a BA in mathematics in 1955, Granger moved on to postgraduate study, and was awarded a PhD in statistics in 1959. He spent an academic year at Princeton, where he was first introduced to the benefits of an afternoon 'power nap' – something he continued throughout his career.

His first academic appointment at Nottingham was as an assistant lecturer in statistics and came in 1956, while he was still working on his doctorate. He was appointed to Reader in Econometrics in 1964, and was promoted to Professor the following year, a position he held until his departure from Nottingham for the University of California at San Diego in 1974.

In 2003 Clive Granger shared the Nobel Prize (formally the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel), "for methods of analyzing economic time series with common trends (cointegration)", with his long time UCSD

colleague, collaborator and friend, Robert F. Engle ("for methods of analyzing economic time series with time-varying volatility (ARCH)").

It is hard to believe we will not again have the pleasure and privilege to share thoughts and to learn from the insights of an intellectual giant.

So much can, has, and will be written, about Clive Granger, the brilliant academic.

Clive Granger was influential in a revolutionary way to all who are interested in time series analysis, theoretical and applied econometrics, time series forecasting, financial time series, and the connection between economic theory and real (time series) data.

His books and academic publications have become industry standards.

His name became an adjective in "Granger Causality", which examines the predictability of time series variables based on past information and "Engle and Granger cointegration analysis" of non-stationary time series data.

Clive was a founding member of the Advisory Board of the *Journal of Economic Surveys*, enthusiastically joining and supporting the *Journal* since 1986. He was an avid reader and commentator on the *Journal* throughout his term and encouraged many authors to submit their papers.

Clive's first significant academic visit to Canterbury was as a prestigious Erskine Fellow in 2000. From that point on, both Clive and Lady Patricia formed a bond with the Garden City that brought them back almost annually.

The day of the Nobel Prize announcement began as most did while he was visiting Christchurch, New Zealand and the University of Canterbury. Clive tended to arrive early to work, usually 8.00am-8:30am, and this day was no different. He had received the famous phone call already and, as many now know, his first thought was that it was a hoax, and not until he heard the voice of someone he knew did he finally accept that the prestigious accolade was his.

If the day started as normal, it soon turned into a media frenzy, where hastily constructed interviews were arranged and the Chair of the Department acted as PA for the day answering requests from Reuters, CNN, the BBC and The London Times.

Throughout all this, the humble Clive, the generous Clive, the patient Clive, shone through. He was genuinely surprised by the attention, and perhaps more so at the speed with which he was tracked down and interviewed. Each new day begins in New Zealand, and this particular New Zealand day was a very long one for Clive. It was followed with a similar early arrival the next day, and his upcoming annual visits to Christchurch witnessed the same hard working routine that helped create the seminal ideas and the ultimate academic accolade.

This work ethic was clear to all who met him. When asked about success, Clive reflected: "...have a few good ideas, chose good collaborators, attract some excellent students, wait 20 years or so, and then retire." Those collaborators and students who were able to work with Clive were indeed fortunate.

Whenever he was around, Clive would lunch with colleagues, sharing his views on sport, especially rugby in rugby-mad New Zealand, as well as all things academic. Retiring to his afternoon 'power-nap', he emerged ready again, door ajar, to work or share his views and thoughts with anyone who sought them out.

Beyond his academic achievements, Clive will be remembered fondly for his kindness, politeness, graciousness, friendliness, honesty and humility.

He was a perfect gentleman in all respects.

Neither of us was a student or co-author of Clive, but over an extended period we learnt much from him about research, the academic profession, and the true meaning of role model.

His wonderful qualities as a human being also applied to his professional career.

To many who had the honour and pleasure of knowing him, Clive was family.

Clive travelled widely, frequently with his wife of almost 50 years, Lady Patricia Granger.

Everyone who knew him will have everlasting memories.

One of us was at a small dinner party with Clive in Perth on the evening of 11 September 2001 when a friend called on a cellphone to say that a plane has just crashed into one of the Twin Towers in New York.

Clive's immediate thoughts were of Robert and Marianne Engle, who had departed Sydney for California, and then New York, a day or two earlier after attending a conference in Perth in honour of the two future Nobel Laureates.

He received numerous honours during his immensely productive and influential career, including the inaugural Canterbury Distinguished Professor, an honour effectively reserved only for those of Nobel Laureate standing, Honorary Doctorates, and academic Fellowships, including the Biennial Medal and Fellowship of the Modelling and Simulation Society of Australia and New Zealand in 2001.

In 2005 Clive was inducted into the Order of Knight Bachelor by Queen Elizabeth II, having been nominated from New Zealand.

Clive will live on forever in the memory and deep affection of all who knew him, and in all who will benefit from his significant insights that are present in his brilliant academic papers and books.

Clive Granger is survived by his wife of almost 50 years, Lady Patricia, together with their son Mark and daughter Claire.

Michael McAleer and Les Oxley

Erasmus University Rotterdam and National Chung Hsing University, Taiwan, and University of Canterbury, New Zealand