

# John Eccles and Karl Popper at the University of Otago, 1945

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The following notes were made by Professor John Eccles of five lectures (and two informal talks) given by Karl Popper during a visit to the University of Otago in May 1945. The notes were written up, cyclostyled and distributed by John Eccles, who used the results of Popper's analysis of science in his own research, and who later shared a Nobel Prize in Physiology and Medicine. Thus, with a world-leading philosopher of science and an eventual Nobel Prize winner, we have in one set of notes an important part of the history of early high level research in New Zealand.

First the note taker, the Australian John (Carew) Eccles (1903–1997) was Professor of Physiology at Otago University from 1944 until he was recruited in 1952 as the foundation Professor of Physiology at the then new Australian National University in Canberra. In Canberra he continued his work on nerve conduction that was initiated at Otago and in 1963 was jointly awarded the Nobel Prize for Physiology and Medicine, particularly for finding that chemical signals transmitted the electrical impulse from one nerve to the next, thereby passing on the electrical signal. It was he who asked Karl Popper to deliver the lectures in Dunedin (Popper 1976, p120).

Throughout the rest of their lives Eccles and Popper remained close friends and associates, and later they produced a book entitled *The Self and its Brain* (Popper & Eccles 1977). Eccles was very supportive of the Popperian approach to science – with its emphasis on testing hypotheses; never giving in and simply believing a hypothesis. Indeed, as pointed out in his obituary of Eccles, John Scott (1999) comments that 'Late one night, in 1951, Eccles concluded from his own experiment that the central processes [of transmission of the stimulus between nerves] must also be chemical. He said calmly, "Lorente is right", and then immediately began to plan a new series of experiments.' This was before he moved to Canberra, and so means that the principal conclusion, and the new experiments that eventually led to the award of the Nobel Prize, came from early experiments done in good Popperian style in Dunedin.

Turning now to the author of the lectures, Karl (Raimund) Popper (1902–1994). He was initially from Vienna before becoming a refugee in England from the Nazis. He was employed in Christchurch at 'Canterbury University College' from 1938 until the end of 1945, when he was recruited by the University of London for the London School of Economics. Popper was initially fascinated by the rise of relativity theory and, as a philosopher of science, sought to understand how, and why, science was the most effective form of human knowledge. In other words, he took science very seriously, and sought to understand why and how science gave the best knowledge available to humans.

The notes are certainly detailed, and give a very good idea of Popper's ideas on science. His primary theme was that the best and most effective science is characterised by people who tested hypotheses, but who refused to believe their own hypotheses. He says of his work in New Zealand that he convinced himself of 'the immense historical importance of erroneous theories' – but only if they were subjected to new

experiments and tests. During his time in Christchurch, Popper wrote *The Open Society and its Enemies* (Popper 1945). It was here that he extended his approach to criticise, first Plato (in Vol 1) and then in Vol 2, Plato's followers, Hegel (founder of Fascism, and therefore of Nazism) and Marx (founder of Marxism, and therefore of Communism). To Karl Popper, there was no absolute knowledge, either in science or in other areas of human activity. General philosophers never seem to have forgiven Popper for his criticism of aspects of Plato's philosophy, but to Popper, Plato was closely associated with the Tyrants who had tried to rule ancient Athens and who opposed democracy. As you will see in the notes, Popper does not see humans as ever having absolute knowledge – it is all testing of ideas (new and old), and forever learning.

Both Popper and Eccles were critical of the anti-research policy that characterised the New Zealand university authorities of the time; and both complained about the heavy teaching load. In Christchurch, Popper was told that 'any time spent on research was a theft from the working time as a lecturer for which I was being paid' (Popper 1976, p119). Of Eccles, it was said that 'because of the heavy teaching load, many of Eccles's crucial experiments took place at night and in the early morning' (Scott 1999). Both Eccles and Popper were among the 6 signatories of a statement in July 1945, advocating a much stronger role for research in New Zealand universities (see Allan 1945). Long live performance-based research funding!

Our copy of the notes came from the late John (Hans) Offenberger, himself also a refugee from Vienna and a student at Canterbury University College at the time Karl Popper was teaching there. John had been interred for several months in the Dachau concentration camp, but a formal entry into Britain allowed him to be sent there. From England, he was awarded an international scholarship for refugees organised by locals in Christchurch, and although technically a student, became a life-long friend of Karl Popper. 'In the Popper tradition, he believed teachers and scientists should expand their knowledge through research lest they become seduced by rhetoric and dishonesty' (Dakin 1999; Kitchin 1999). The 'Offenberger Building' at the Massey University campus in Wellington is named in John's honour ([http://www.massey.ac.nz/massey/about-massey/news/article.cfm?mnarticle\\_uuid=A2D776F6-E981-002E-2129-A29D3FA02F85](http://www.massey.ac.nz/massey/about-massey/news/article.cfm?mnarticle_uuid=A2D776F6-E981-002E-2129-A29D3FA02F85)).

## References

- Allan, R.S. *et al.* 1945. *Research and the University*. Christchurch, Caxton Press. (Reprinted 1989 in *New Zealand Science Review* 46:72–73.)
- Dakin, J. 1999. Obituary, John Offenberger 1920–1999. *New Zealand Humanist* 141.
- Kitchin, P. 1999. <http://www.royalsociety.org.nz/1999/04/01/obit-offenberger/>
- Popper, K.R. 1945. *The Open Society and its Enemies*. London: Routledge & Kegan Paul.
- Popper, K.R. 1976. *Unended Quest: an intellectual autobiography*. London, Fontana.
- Popper, K.R.; Eccles J.C. 1977. *The Self and its Brain: an argument for interactionism*. Heidelberg: Springer-Verlag.
- Scott, J. 1999. <http://www.royalsociety.org.nz/publications/reports/yearbooks/year1999/obituaries/john-eccles/>

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