

# PROFESSOR BARRY COLE

Interviewed by

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The recent appointment of Barry Cole to the Foundation Chair of Optometry at the University of Melbourne is a recognition not only of his considerable contributions to research, education and clinical practice in optometry.

It is also an honour for the science of optometry.

The University of Melbourne is the longest established university in Victoria and its standing is international.

Professor Cole is himself a graduate of the University of Melbourne and the Victorian (then Australian) College of Optometry. He holds the Licentiate of Optometrical Science, and the degrees Bachelor of Science, Master of Applied Science and Doctor of Philosophy. He is also a Fellow of the American Academy of Optometry.

After private practice in Melbourne, Barry Cole gained clinical experience overseas in the London Refraction Hospital and also at the School of Optometry at Indiana University. He also spent a year as visiting research professor at the College of Optometry at Columbus in Ohio State University.

The first full-time teaching appointment at the Victorian College of Optometry went to Barry Cole in 1959 and his first task as lecturer was to reshape the curriculum and teaching programme and to establish it firmly within the University of Melbourne. A four-year degree course was established within the Faculty of Applied Science in 1961 and in 1962 the College was affiliated to the University.



Barry Cole was appointed Director of Studies of the Victorian College of Optometry in 1965 and was promoted to Reader at the University of Melbourne in 1972. In 1973 the Department of Optometry was established in the University and undergraduate and postgraduate teaching was transferred from the College to the

University. Dr. Cole was elected chairman of the Department while remaining Director of the Victorian College of Optometry.

Professor Cole represents the University of Melbourne on the Optometrists' Registration Board of Victoria.

The thesis submitted for his doctorate was entitled 'The blue-sensitive mechanisms of human colour vision'. In recent years his teaching interests have covered visual functions of man, ocular motility, normal and abnormal colour vision, and public health optometry, and have included lecturing on colour vision in the Department of Ophthalmology.

The joint position of Chairman of the Department of Optometry and Director of the College is designed to ensure that the two bodies work together and in particular that the patient service and teaching functions in the clinic do not come into conflict. By deliberate policy, Professor Cole has aimed to encourage the growth of the clinic to provide a richer environment for teaching and research. In 1967 the clinic provided services for 1846 patients; in 1978 the number will be around 12,000 patients and for a far wider range of services.

"It is difficult to find time to keep up with clinical work" Professor Cole said. But he had an appointment with a patient immediately after our conversation.

He keeps up with detailed clinical work and certain areas of basic vision research, while able to keep an overall view of all aspects of his Department, and hold a brief for the progress of optometry as a profession.

Professor Cole has a particular interest in continuing education for optometrists, and the Victorian College of Optometry has expanded in this direction. One of his present concerns is the development of the optometrist's communication skills, to give the patient a more meaningful personal service. To this end a course to develop counselling skills, poise and the ability to communicate in the chairside situation has been developed at the College and is now built in to the undergraduate course.

The initial research interests of Professor Cole were concerned with the nature

and processes of normal and abnormal colour vision. This prompted certain practical questions about methods of diagnosis in clinical practice and about the extent of handicap suffered. Queries came from practitioners, licensing agencies where colour vision is a criterion, traffic engineers and industries where critical colour judgements are made. Referral of patients offered the chance to develop practical diagnostic protocols, and this led to changes in the way in which this clinical area is taught. This in turn has enhanced the competence of the profession in the management of this functional disorder.

Arising out of this work the Australian Road Research Board supported an investigation into the recognition of traffic signals by people with colour defects and the ways signals might be designed to overcome the risk of error by the 8% of male drivers who have abnormal colour vision. This work led to many other research grants and this enabled the Visual Ergonomics Research Unit to be established under the direction of Professor Cole.

The unit has three current projects. One is concerned with acquisition of information at a single glance from extended alphabetic messages. Another is seeking to develop an operational definition of conspicuity and a set of empirical data so that first-order approximations can be predicted for practical circumstances. The newest project is examining the dynamic inter-relationships of the cues to depth and distance perception.

The supervision of research students has been one of the many tasks Professor Cole has enjoyed. Indeed, the readers of the *Australian Journal of Optometry* have enjoyed reading about their research in the many papers they have published over the years.

The clinic of the Victorian College of Optometry and its staff have been encouraged by Professor Cole to develop and participate in clinical research programmes. The clinic has grown both as a resource to research and to patients.

The establishment of the Low Vision Clinic at the Kooyong centre of the Association for the Blind has been part of this

growth and research grants for work there have been provided by the National Health and Medical Research Council and by the Association for the Blind. The Low Vision Clinic is itself a unique example of purposeful co-operation between the eye-care professions in the interest of the visually handicapped.

The extension of research in optometry has been one of Professor Cole's main aims. "Optometric research resources are limited in Australia at the three schools of optometry. Moreover the industry supporting the profession does not have a well developed research capacity in Australia", Professor Cole explains.

He was instrumental in the establishment of the National Vision Research Institute which is able to undertake fundamental long-term projects which staff and students of a university department would be unable to complete in the timespan allotted to them.

Professor Cole was acting director of the N.V.R.I. until the recent appointment of Dr. Donald Mitchell as director.

The Institute is largely funded by member optometrists and by industry, and the Victorian Government and the National Health and Medical Research Council provide strong support for the N.V.R.I. "Supporting the N.V.R.I. is one of the most creative things an optometrist can do for the future of his profession", Professor Cole says.

Many extra-mural appointments and activities have been part of Professor Cole's life, mainly ones concerned with education, research, ergonomics and standards.

Professor Cole listed for the *Journal* areas of his career in which he feels he can take personal pride. These are his role in the foundation of the National Vision Research Institute and the Low Vision Clinic; the development of the clinic at the Victorian College of Optometry as a vital resource centre for the community and for teaching; and the development of the College as a research-oriented department of world standing.

Professor Cole is justifiably proud of what he calls the "missionary" role of his Department. Many of its graduate students are to be found in the leading centres of optometric educational and vision research in Australia and around the world.

Some notable examples of the effect that former students of Professor Cole have had upon optometry world-wide are: Professors Tony Adams and Ian Bailey at the University of California, Dr. Brian Brown at the Smith-Kettlewell Institute of Visual Sciences in San Francisco; Dr. Brien Holden at the University of New South Wales; Dr. Leon Garner at the University of Auckland; Dr. Donald Mitchell at Dalhousie University and now the N.V.R.I.; Dr. Robert Hess of the Physiological laboratories at Cambridge University; and Dr. Rodney Watkins of SOLA International.