

obituary

The recent premature and unexpected death of **James Olds** deprives physiological psychology of one of its most distinguished workers and the neurosciences of a man whose experimental work cannot be ignored in any serious behavioural theory. His major discovery provoked controversy from the time of its first report and although he made substantial contributions himself, many related issues are unresolved at the time of his death.

In 1953 Olds and P. M. Milner, working in D. O. Hebb's laboratory at McGill reported that rats with electrodes in lateral hypothalamic and septal sites would press a lever to deliver trains of stimuli to their own brains. Electrical self-stimulation revealed the existence of powerful central reward mechanisms and immediately raised difficulties for theories in which behaviour is initiated only to mitigate the aversive consequences of internal disequilibrium. The phenomenon had not been predicted by theories current at the time (but the aversive effects of brain stimulation had been looked for and found the previous year by Delgado, Roberts and Miller) and although he had considered the existence of central reward processes, Olds was working on the 'arousing' effects of electrical stimulation when he made his discovery. Noting a tendency for one rat to return to a point where he had previously been stimulated, Olds and Milner were quick

to exploit this phenomenon with an operant conditioning apparatus. Many researchers must previously have seen sniffing and approach behaviours following stimulation through implanted electrodes. The originality of the discovery lay in seeing the possible significance of this behaviour and examining it in a Skinner box.

In succeeding years Olds made major contributions to understanding self-stimulation behaviour. With Travis and Schwing, and later with M. E. Olds, he prepared what are still the most extensive maps of approach and avoidance areas in the rat brain. With Travis, Yuwiler and others he initiated investigations of the possible neurochemical basis of the phenomenon. His suggestion in 1960 that the major tranquillizers act specifically on the mechanisms of approach behaviour has recently attracted new interest in the light of the action of these drugs on dopaminergic mechanisms. Increasingly Olds became interested in single cell recordings as a method of investigation, but he never felt that these had given the answer he really wanted, the anatomical identity of the reward mechanism itself.

Olds' writings on self-stimulation included many provocative theories. He took an intense interest in new ideas and findings which might be relevant to the problem, and in recent years had been preoccupied with the possible role of monoamine neurones in reinforce-

ment. To the end of his life he remained at the centre of controversies concerning the functional significance of this behaviour and its neuroanatomical basis, and in retrospect it was perhaps fortunate that so much work in this field was gathered together at the Beerse conference in 1975 (*Brain Stimulation Reward*, edited by A. Wauquier and E. T. Rolls, Elsevier). James Olds must have impressed many of those present as the man best able to draw together the various strands of evidence in a coherent synthesis. Particular interest attaches therefore not only to his contributions to this symposium but also to the as yet unpublished monograph on Drives and Reinforcements completed a year before his death.

Olds modestly maintained that if he had not discovered electrical self-stimulation it would soon have been uncovered by someone else. This may be doubted, but even if true, few workers could have contributed his enthusiasm and imagination to developing a whole new field of psychophysiological work. He was a man who was willing to consider unusual concepts and paradoxical ideas but pursued them with great clarity. Everyone in the field will feel the loss of his critical intelligence and many will also acknowledge a debt of gratitude for his personal encouragement of their own efforts.

T. J. Crow

announcements

Appointments

Dr H. S. Bedson to the Chair of Medical Virology at the University of Birmingham.

Dr Leo A. Kaprio has been reappointed as Regional Director for Europe of the WHO.

Mr E. S. Booth, chairman of the Yorkshire Electricity Board, as the next President of the IEE.

Professor A. Lazenby, at present Vice-Chancellor of the University of New England, NSW, as the next Director of the Grassland Institute.

Professor D. R. Stranks, of the University of Melbourne, as Vice-Chancellor of the University of Adelaide.

Professor E. W. J. Mitchell, Head of the Department of Physics, as Deputy Vice Chancellor of the University of Reading.

Dr Derek Ogston, Reader in Medicine as Regius Professor of Physiology at the University of Aberdeen.

Dr Roger Grice, of Cambridge University, as Professor of Physical Chemistry at Manchester University.

Professor John Fraser Scott, of the University of Sussex, has been appointed Vice-Chancellor of La Trobe University, Melbourne.

Awards

The Faraday Division of the Chemical Society has awarded the 1976 Marlowe

Medal to **Dr James J. Burton** of the Exxon Research and Engineering Company for his theoretical work on microclusters.

The Finsen awards for 1976 have been made to **S. B. Hendricks** (Control of plant development by light), **H. F. Blum** (Skin and Cancer Hospital, Philadelphia, USA) (Photodynamic action and carcinogenesis by UV light), and **D. Shugar** (University of Warsaw, Poland) (Photochemistry and the structure of nucleic acids and proteins).

The SRC has awarded Senior Fellowships to **Dr A. Boksenberg**, of the Department of Physics, University College, London; **Professor A. Car-**