## Johan Schioldann: History of the Introduction of Lithium into Medicine and Psychiatry Birth of modern psychopharmacology 1949

## Appendix II

## The many faces of John Cade by Ann Westmore

Biographical notes about John Cade focus almost exclusively on his research and clinical activities. These sober accounts give few hints of the larky side of his personality or the nature of his philosophical convictions. How does one capture, however fleetingly, the breadth of an individual who influenced global psychiatry from a small corner of Australia?

Cade was born in 1912 in a country town in the south-eastern mainland state of Victoria. Cade was the eldest of three boys; his mother Ellen was a former nursing matron and his father David a medical practitioner who interspersed employment as a general practitioner with that of a mental health medical officer with the Victorian Mental Hygiene Department (hereafter referred to as 'the Department').

By virtue of his father's job, the young John Cade was unusually familiar with the workings of mental hospitals and presumably with ideas about normality and abnormality, health and illness, mind and body.

Writing the Cade family memoirs during the Second World War, David Cade remarked that his eldest son, whom everyone called Jack, was 'a strange mixture of gravity and brightness and (who) quite early ... manifested signs of that spirit of investigation and experimentation that ... characterized him throughout his life'.

Jack had other traits that stood out to his contemporaries. A friend, at both junior and senior school levels and at medical school, Benjamin Rank (later Sir Benjamin Rank, a noted plastic surgeon), remembered Jack Cade as a very orderly and research-minded individual who, during their years as resident medical officers, kept detailed lists and classifications. Another close friend, the late Frank Prendergast, a contemporary in the University of Melbourne medical school and the Department, recalled an incident in which the normally unflappable Cade became very angry. He had been persuaded to provide some financial support to a man who claimed to be desperately keen to start medicine in Sydney but who, it turned out, was using the money fraudulently. When the fellow came to Melbourne to obtain more money, Cade responded to his rudeness by spinning him around and kicking him on the posterior. Still others remembered him for his competence at tennis, golf and boxing, and for his fascination with nature, particularly with paw prints and dung deposits.

In his final year as a medical student at the University of Melbourne (1934), John Cade demonstrated his aptitude for attending to detail and for sorting information by winning the forensic medicine prize. Then, in early 1937, by which time he had followed in his father's footsteps and joined the Department, he conducted a nutritional survey in two Victorian mental hospitals. His investigations revealed latent scurvy in a large group of patients, a finding that led to changes in the food offered to patients and recruitment of the Department's first ever dietitian.

As a young doctor, John Cade was interested in crafting words, a fascination he shared with his youngest brother, Frank, a newspaper journalist. In 1937 the Medical Journal of Australia published his meticulous account of the circumstances surrounding the death of a patient at the Beechworth Mental Hospital in northern Victoria. He described symptoms consistent with arterial spasm and then, in a final twist, posed the question of whether the widespread arterial constriction might have been due to a large gallstone noticed shortly before the patient's death. The elaborate nature of the article suggests a pleasure in the use of language and a desire to keep readers entertained. Stylistically it differs markedly from the brevity of articles in which John Cade claimed significant biochemical discoveries, but this may simply indicate his haste to publish.

John Cade's interest in conducting research was signalled by the completion of a University of Melbourne MD in 1938, a postgraduate medical qualification for Australian doctors contemplating a career in research. His decision to undertake this training was influenced by Dr John Horan, the young and dynamic Medical Superintendent of St Vincent's Hospital, Melbourne, where John Cade spent 1935 as a resident medical officer. Dr Horan was a general physician with a special interest in gastroscopy, a man with a reputation for never forgetting a case and for seeing recurring patterns in all sorts of situations. He was one of the growing number of doctors in pre-war Australia who held that the advancement of clinical medicine, whether in gastroenterology, psychiatry or any other branch, relied on the adoption of a scientific approach by all members of the profession, with research as the essential scaffolding. John Cade later urged his psychiatric colleagues to adopt this model, saying:

Let each one of us engaged in the treatment of mental illness deliberately set out to investigate for ourselves some one of the numerous problems which arise ... let us never rest content with the present bounds of knowledge. It is for us to initiate a particular approach to a psychiatric problem, and if we have not the necessary knowledge or technical training ... then let us cultivate and co-opt our colleagues in these specialties.<sup>[2]</sup>

In embarking on the MD, John Cade made a clear statement about where he differed from an older generation of mental health practitioners, including his father. While father and son were supportive of each others' achievements, and were sympathetic when problems occurred, they viewed themselves quite differently: David Cade, a pillar of Empire and a man of the classics; his son a scientific psychiatrist who enjoyed devising

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<sup>&</sup>lt;sup>1</sup> Derek Watson complained about this aspect of Cade's paper 'A significant elevation of plasma magnesium levels in schizophrenia and depressive states', in his letter to the Med. J. Aust. 1964;1:461–462.

<sup>&</sup>lt;sup>2</sup> Cade JF.: Beattie-Smith Lecture no 1, 'Research'. Med. J. Aust. 1951;2:219.

theories about the causes of mental illness and who then liked nothing better than to devise ways to test them.

John Cade's allegiance to research, and to inter-disciplinary collaboration as a way of unearthing biological insights, was further demonstrated with the publication in 1940 of a study he co-authored with Professor Frank Macfarlane Burnet, the Director of the Walter and Eliza Hall Institute of Medical Research in Melbourne, (and later a knight and Nobel Prize recipient), and Miss Dora Lush, Burnet's colleague.<sup>3</sup> The study concerned sub-clinical influenza infection in mental hospital patients and in research institute staff during a major flu outbreak. Reflecting recently on this paper, Australian virologist, Professor Frank Fenner said that the study was possibly the first serological study of subclinical infection. Its findings were novel at the time.

The Second World War gave rise to a period of enforced research idleness for Cade, a senior company commander with an Australian Army Field Ambulance whose psychiatric duties were incidental to his general regimental medical work. He was one of several thousand Australian servicemen and women captured by the Japanese at Singapore in February 1942 and incarcerated for three-and-a-half years in the Changi POW camp. His fellow prisoners called him the Mad Major, a nickname he attributed to his specialist inclinations, but which may also have stemmed from his wicked sense of humour and penchant for limericks, malapropisms and pithy yarns.

His letters home in the days following the declaration of peace in mid-August 1945 show that his time at Changi was not entirely wasted. He said:

... the old brain box is simmering with ideas. I believe this long period of waiting has allowed many of my notions in psychiatry to crystallise, and I'm just bursting to put them to the test. If they work out, they would represent a great advance in the knowledge of 'manic depressive' insanity and primary dementia—sounds like my usual over-optimism, doesn't it? Well, there is only one way to find out—test it and see. [4]

In the immediate post-war years John Cade was not tempted to switch from public to private psychiatry, a move many of his colleagues made. Instead, he resumed work with the Department in early 1946, one of the major attractions being the 'unrivalled opportunities in the mental hospitals of this State, simply because of the wealth of clinical material'. He turned his attention to research, the aim of which was to test a theory that a bodily substance or substances in excess, and demonstrable in the urine, was connected with particular forms of mental illness. The research resulted in publications on the

<sup>&</sup>lt;sup>3</sup> Burnet FM, Cade JF, Lush D.: 'The serological response to influenza virus infection during an epidemic, with particular reference to subclinical infection', Med. J. Aust. 1940;1:397–401.

<sup>&</sup>lt;sup>4</sup> John Cade, letter to Jean Cade, Wed, 26 September 1945.

<sup>&</sup>lt;sup>5</sup> op. cit., John F J Cade 1951, p.216.

anticonvulsant properties of creatinine, in 1947,<sup>6</sup> and in 1949 on lithium's effectiveness in controlling acute manic states.<sup>7</sup>

A number of studies soon confirmed lithium's calming influence on manic patients. But the research was not without its critics. Locally, an issue over a lack of controls was raised and local and international researchers warned of lithium's association with toxicity and death. John Cade responded to the latter concerns by asking those of his colleagues who had prescribed lithium to write and tell him of their experiences with it.

Cade's research activities earned him an invitation to give the prestigious Beattie-Smith Lecture in psychiatry at the University of Melbourne in 1951, and he took the opportunity to roundly criticise the burgeoning influence of Sigmund Freud and to warn of the deleterious impact of psychoanalytic approaches.<sup>8</sup> These views were gratefully seized upon by a handful of influential Melbourne psychiatrists and neurologists, all of whom were Catholic, who saw biological psychiatry as an antidote to the growing influence of psychoanalysis. They in turn suggested the establishment of a Catholic teaching unit in Victoria for students of psychology and social work.

This teaching unit proved to be neither feasible nor necessary, in part because John Cade accepted the plum teaching position associated with the Medical Superintendency of the Royal Park Mental Hospital in Melbourne. He became one of Australia's foremost teachers of clinical psychiatry and, naturally enough given his research interests, gave fulsome accounts of biological explanations of mental illness. As many as 300 trainee psychiatrists heard his erudite and entertaining lectures between 1952 and 1977 when he retired.

Meanwhile John Cade, a regular Church-goer since childhood after adopting the Catholic faith of his mother, contributed some of his scant free time to Catholic causes. For a number of years he wrote a monthly column for a magazine whose readership included many thousands of Catholic families, and he lectured to trainee priests about psychiatry and mental health. In his regular column and in other forums he encouraged the community to question psychiatric jargon and psychiatrists' claims to expertise on personality problems, behavioural disturbances, anti-social behaviour and marriage guidance. He was equally capable of undermining Catholic doctrine, using a witty dissertation on the history of masturbational madness to highlight the flimsiness of the Church's arguments about the dangers of masturbation.

When fame began to creep up on him in the 1970s, Cade happily accepted the limelight and a handful of glittering prizes that went with it. Invited to a three-day symposium in Baltimore in 1970 on *Discoveries in Biological Psychiatry*, he pointed out

op. etc., voim 1 v cade, 1951, p.215

<sup>&</sup>lt;sup>6</sup> Cade JF.: 'The anticonvulsant properties of creatinine'. Med. J. Aust. 1947;2:621–623.

<sup>&</sup>lt;sup>7</sup> Cade JF.: 'Lithium salts in the treatment of psychotic excitement'. Med. J. Aust. 1949;2:349–352.

<sup>&</sup>lt;sup>8</sup> op. cit., John F J Cade, 1951, p.215.

<sup>&</sup>lt;sup>9</sup> Cade JF.: 'Masturbational madness: An historical annotation'. Aust. NZ. J. Psychiatr. 1973;7:23–26.

that his lithium work had been that of a 'lone wolf researcher', as had most of the other discoveries featured at the symposium.

By teaming curiosity with crude research techniques and the freedom to pursue ideas, John Cade helped to generate an Australian presence in the modern psychopharmacology revolution, and by accident or design, heightened the schism between biological and sociocultural approaches.

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