37 Burnet, F.M., 'Man as God-in-the-Making; An Acceptable Myth?', unpublished manuscript, p. 36.
38 By the 'second sequence' Burnet meant the process by which matter developed progressively greater degrees of organisation and informational content until reaching the current climax of man and his artifacts.
39 Burnet, F.M., 'Man as God-in-the-Making: An Acceptable Myth?', p. 43.
40 Burnet, F.M., *Credo and Comment: A Scientist Reflects*, Melbourne: Melbourne University Press, 1979, p. 36.
41 Burnet, F.M., *Biology and the Appreciation of Life*, p. 29.
42 Burnet, F.M., *Endurance of Life: The Implications of Genetics for Human Life*, p. 88.
43 ibid.
44 Burnet, F.M., *Endurance of Life: The Implications of Genetics for Human Life*, p. 91.
45 Written contribution from Mr Ian Burnet to author.
46 Burnet, F.M., *Endurance of Life: The Implications of Genetics for Human Life*, p. 93.
47 Burnet, F.M., *Endurance of Life: The Implications of Genetics for Human Life*, p. 97.
48 Written contribution from Mr Ian Burnet to author.
49 ibid.

Mental Illness and Intoxication

by

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and

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Two papers delivered at a meeting of the Medico-Legal Society
held on 8th August 1992 at the Australia Club.
The Chairman of the Meeting was the President
Mr. G. Gronow

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Each time society calls upon our professions and upon jurors to make judgments in the courts of law about the responsibilities of individuals, it is asking us to reflect upon one of the most profound and perhaps imponderable questions involved in moral philosophy and neuroscience. It asks us to wrestle with competing theories about the essential nature of those processes underlying the desires and intentions which lead to human action, particular, actions which cause harm to others. It is also asking us to reflect upon and reach judgments about the extent to which those processes which form the sub-stratum of our desires and actions are controllable by us. Those of us in the legal and medical professions can get along very nicely when we're carrying out specialised activities within our own clearly identifiable areas, such as removing breast lumps or dealing with the complexities of contract law. We also tend to be sufficiently tolerant to enable us to thoroughly enjoy each other's company and opinions whilst mixing together on occasions such as this. But when we approach the vexed question of the ultimate wellsprings of human behaviour, on the whole we do so from opposite sides of a rather wide fence. The law places great value on the autonomy and moral responsibility of the individual, generally viewing behaviour as being freely chosen. As a consequence it holds people accountable and when appropriate culpable for their actions except under carefully defined circumstances. In contrast medicine, specifially psychiatry, takes a more deterministic view of behaviour. We seek to identify and understand the antescedent causes of abnormal behaviour which we often conceptualise as operating upon rather than being willed by our patients. We make little if any use of concepts such as blameworthiness and culpability in our day to day practice. However since 1760 when the legal profession first invited one of us, Dr. John Munro, into a British court room as an expert witness, the legal systems of the world have called upon us to reflect and make comment upon the ethical and moral dimensions of our diagnostic decision making.

We have been the bane of those seeking to formulate general principles as to who should and who should not be held responsible and punishable for criminal acts. Psychiatry, or more accurately,

the use made of psychiatric testing by defence counsel in the United States, has been held responsible for the major tightening up of the criteria by which a person could be exhonerated in that country on the basis of insanity or diminished responsibility. This occurred between the 1950s and the 1980s. The legal profession, politicians and indeed the public, felt that psychiatric opinion which was too liberal and too absolutionist was responsible for allowing criminals to escape their just desserts. This sentiment was succinctly expressed by Senator Oran Hatch of Utah when he said that the concept of mental illness has expanded steadily in this century at the expense of moral responsibility. This issue came to a head at a State level in California in 1979 following the trial of Dan White for the murder of the Mayor of San Francisco, George Mosconi, and a senior official, Harvey Milk and at the Federal level in 1982 at the trial of John Hinkley for the attempted murder of Ronald Reagan. Dan White was found guilty of the lesser crime of involuntary manslaughter rather than first degree murder because he successfully claimed that his intake of junk food including a type of cake called 'Twinky' contributed to him becoming depressed and impaired his capacity to form the requisite intent to murder. This finding was arrived at despite the fact that he had a clear motive for the killings. The day before the murders he learned that Mayor Mosconi had refused to reinstate him to a supervisor's position that he had resigned from. Harvey Milk was felt by White to have been involved in that decision. In addition to the presence of such a clear motive, White's actions certainly suggest premeditation. He came to City Hall with a concealed gun, entered through a window to escape detection by the metal detectors situated at the door, shot Mosconi five times, then reloaded his gun and shot Milk four times. The so called 'Twinky' defence of diminished responsibility which was successfully used by White was abolished by the Californian legislature in 1981. The Hinkley trial also aroused much concern about psychiatric testimony because Hinkley was acquitted on the grounds of insanity, despite sharply differing views and sharply differing psychiatric opinion about his diagnosis and despite the fact that a considerable proportion of the American public viewed him not as mentally ill but as a fame seeking loner whose self-indulgent behaviour could in part be explained by the fact that he had been brought up in an affluent family. The Hinkley acquittal, by reason of insanity,

lead to the adoption in 1984 by the United States Senate with a vote of 91 to 1 of the Insanity Defence Reform Act. This Act in effect restricted the criteria for an insanity defence to those stipulated by the British Law Lords 141 years earlier in relation to the case of Daniel McNaughton, criteria which are well known to most of this audience because they continue to form the basis of insanity defences in Australia and in Britain. I'd like to consider the appropriateness of the McNaughton rules to contemporary views about the relationship between mental illness and responsibility in Australia, but first I'd like to outline the necessarily ambitious goals which the topic under consideration causes me to pursue and to describe the vantage point from which I am offering my contribution. I speak not as a forensic psychiatrist, but as a research psychiatrist mainly involved in exploring the neurobiological bases of serious psychiatric illness, especially schizophrenia. With this neuroscience orientation I devote my talk to addressing several related questions, in particular, what effect, if any, is our rapidly expanding understanding of the mechanisms by which the brain generates behaviour having on our views about the extent to which we can be held accountable for our behaviour. In asking you to consider this question, I am also asking you to reflect upon the possibility that ignorance may be the potential enemy of the accused as well as their potential friend. In the traditional sense, the individual's ignorance about the nature of or wrongfulness of an act can be used as an excalpatory defence but perhaps our current collective ignorance about the influences operating upon our brains and how they cause individuals to act, cause individuals to now be punished in a way which will be considered unnecessary in the future. To me it is untenable to believe that the legal concept of responsibility will be untouched by our unfolding knowledge base about the causes of mental abberation, even though such changes are unlikely to be as profound as those which resulted from the transition of viewing madness as a sinful demonic position in the medieval period to viewing it, by the 18th Century, as a medical disorder. As late as the 17th Century, mentally ill people were considered to be witches and sorcerers. The rather stark treatment implications of such conceptulisations were illustrated by the 1636 case of a psychotic man from Konigsburg. He thought he was God, the description stated. He claimed that all the Angels and the Devil and the Son of God

recognised his power. He was convicted. His tongue was cut out, his head cut off and his body burned, but fear not, in wishing to challenge the more radical of the freewill views of human action I am not seeking the transfer of the 18 000 or so residents of Australian penal institutions into psychiatric treatment facilities. My focus is not on dispositional issues but on attributional ones. It centres on the extent to which we are currently being fair or unfair in recognising the manner by which factors beyond our control shape our behaviour. My argument is not, however, cast without concern for public safety. I hold that a greater formal recognition by the law of the causal influences of brain on behaviour need not in any way weaken society's capacity to quarantine those who pose palpable risk to others. Before discussing changing concepts of mental illness, let us first look at the more general issue of intentionality. One of the most sacred principles of the law is that to be found guilty of a crime one must possess mens rea, a guilty state of mind. For many crimes an intention to achieve the specific outcome represents the most important criterion for mens rea. My limited reading of legal philosophy leads me to conclude that the law views itself as having either no wish or no need to consider the relationship between mens rea and the mechanisms by which intentions develop in the brain. However, if the law were to have a view about this matter, I believe that it would hold that some immaterial mentalistic and core essence which could be thought of as the mind or the will, creates intentions which are then represented by brain cell activity which may or may not result in actions occurring. The description of such an immaterial self-agency was popularised by Gilbert Rile when he referred to the ghost in the machine, a term he used to describe the explanatory concept used by American Indians as they tried to make sense of trains being able to move across the prairies even though they were not pulled by horses. Nine years ago, Benjamin Lippett from the University of California conducted an important series of experiments which cast doubt on common sense views such as these as explanations for how we will actions to occur. He asked his subjects to bend their forefingers whenever they wanted to and to time exactly when they first became aware of the intention to move their fingers by recalling the precise location on a clock face of a rapidly moving dot. Whenever their intention first occurred, they were to locate exactly where the dot was on the clock face.

Lippett also carefully recorded brain electrical activity and muscle activity to identify the relative timing of three events: the intention to move, changes in brain function relating to the intention and the movement itself. I would like to suggest that the legal model might propose that the events would occur exactly in this order, namely, conscious intention first, then brain activity, then movement, but the results did not support this prediction. Lippett conclusively showed that the first events in this chain were specific and unconscious brain electrical changes. These changes occurred on average three tenths of a second before the person registered an awareness of his or her intention to move, which preceded the finger movement by one fifth of a second. So, dividing the half second before the movement into tenths of a second, at minus five tenths of a second, the brain electrical activity changes occurred. At minus two tenths, the conscious decision to move was recognised and at times zero, the finger was flexed. This finding and results from studies similar to Lippett's have a direct bearing on key legal issues in a number of ways. First, the fact that physiological processes in the brain occur prior to conscious thought suggests that it is probably appropriate for the strong influence of the thinking of Renee de Carte on certain aspects of contemporary law to subside rapidly. Although Cartesian thinking which holds that there is an irreducable separateness between mind and brain might have been all the rage 300 years ago, its time has long since come and gone, not because of any change of philosophical fashion, but because of the accumulation of hard won knowledge about brain and behaviour. When legal scholars state that terms such as voluntariness, intention are not scientific terms and should not be the subject of testimony by expert witnesses, they're overlooking the fact that it would be possible to systematically study the effects of intoxicants, psychiatric illness and brain pathology for example, on the ability to form and inhibit intention and on related neuropsychological performance measures, studies which would be highly relevant to the conduct of judicial processes. The law readily accepts and often relies on the input of scientists and doctors into its deliberations. For example, in our State the legal profession and the public as a whole are proud of the professionalism and expertise of the staff working at the State Forensic Science Centre and the Institute of Forensic Pathology. Wouldn't it be worth considering that a State as

research orientated as ours might host the world's first forensic neuropsychology research centre focussing on the science of volition on those social, psychological and biological influences on volition and voluntary actions relevant to the criminal law? It will still be juries and judges who make the ultimate decisions regarding guilt or innocence, but the introduction of empirical evidence about influences on intentionality might obviate the need to rely purely on common sense or on the testimony of expert witnesses who rely purely upon information obtained during diagnostic interviews . These witnesses often feel that no matter how much they try to simplify their language, they're speaking from uncomfortably different conceptual viewpoints from their lawyer colleagues and have limited data to back their judgments. An issue raised by Lippett's experiments, and one which will not be easily or ever resolved by research, is the extent to which people can be held responsible for the unconscious brain processes which precede the development of conscious intentions. If we assume that the intention to stab someone first finds representation in a person's brain by the firing of a particular constellation of cells, why do we hold that person responsible for those brain cells misbehaving any more than we hold a person who develops leukaemia responsible for their white blood cells misbehaving and becoming cancerous? I haven't come across any case law in this regard, but the case of Frank Pollard demonstrates the extent to which the influence of unconscious processes can be held to excuse a person from committing certain crimes. In Pollard's 1959 trial, those unconscious processes were considered within a Freudian psychodynamic framework rather than a physiological one. But the inappropriateness of Pollard's exoneration would, I believe, hold for any neuroscientifically inclined barrister or client wishing to mount a modern version of the Pollard defence. Pollard, a Detroit policeman, attempted, or completed, fourteen robberies on banks and grocery stores. He usually botched them. Psychiatrists testified that he undertook his robberies not primarily for money, but because of an unconscious desire to be caught and punished as a result of the guilt he felt about not being home when his wife and child were killed by a drunken neighbour two years before his criminal activities commenced. The Sixth Circuit Court of Appeals found him not responsible for his crimes as a result of this defence. Where the court missed the boat, in my opinion, was

confusing causation and compulsion. All our actions are caused and have some antecedents but on that basis alone, we can't be given a carte blanche to do as we please. The key question should be, how much are we at the mercy of factors beyond our control to carry out particular acts? How much do certain brain states, unconscious motivations, psychoses or cerebral tumors impell us towards a particular course of action as surely as we are impelled by someone telling us to do something whilst holding a gun to our head? And to what extent do we retain the capacity to make alternative choices? The difference between causation and compulsion was highlighted by Maurice Schlitz when he wrote, 'The law of nature must not be thought of as supernatural powers forcing nature into a certain behaviour, but simply as abbreviated expressions of the order in which events follow each other. The laws of celestial mechanics do not prescribe to the planets how they have to move as though the planets would actually like to move quite otherwise and are only forced by the burdensome laws of Ketler to move in orderly paths. No, these laws do not in any way compel the planets, but express only what in fact planets actually do'. In Lippett's experiments neither the initiating brain changes nor the conscious awareness of the intention to flex one's fingers represented points of no return. They were not uncontrollable determinous triggers which sealed once and forever how the individual was then going to behave. Between the conscious intention to move and the time the movement might normally occur, the subjects had approximately one fifth of a second during which they could, and from time to time did, veto the intention to move. Our brains are in fact cauldrons brewing up innumerable competing intentions, many of which would not necessarily cast us in a flattering light should we, for example, decide to explicitly and fully describe their nature to a table full of companions during a restrained dinner party. It's not the intentions we form which are germaine, it's what we do with them. The neurological condition described as Alien Hand Syndrome illustrates the extent to which our vetoing capacities might be impaired by structural changes in the brain. This syndrome is due to destruction of a small area at the front of the brain near the midline, usually by a stroke or a tumor. The most recent published case report of this Alien Hand Syndrome provided this year by Feinberg, was of a 68 year old man who had a stroke in this region on the left side of his brain. As a

consequence, his right arm and his right hand were often in motion in an uncontrollable, unwilled and unwanted manner, grasping bed clothes, grasping objects on his bedside table, grasping his own leg or his own genitals and not letting go. The patient described whilst getting changed his right hand suddenly grabbed his pyjamas and ripped them. To try and control the situation he had to wrestle his right hand to the ground. A more familiar process interfering with our ability to inhibit inappropriate or socially undesirable behaviours is intoxication by alcohol. When considering this matter let us limit our attention for the moment to the acute affects of alcohol and not address the more important issue of whether a person by becoming intoxicated deliberately places himself in a situation in which he is more likely to do harm to others or whether alcoholism is a disease over which the person has little control. Clearly alcohol limits our capacities for us to register, remember and control our intentions. On grounds such as these in 1981 Mark O'Connor, before the High Court of Australia, successfully appealed his conviction for unlawfully wounding a policeman with a knife. He claimed that his consumption of four glasses of Galliano, three bottles of beer and 15 Avil travel sickness tablets on the day in question caused him to be in a state which precluded him from forming a conscious intention to wound the policeman. Reflection on O'Connor's case with the aid of data from Lippett's studies on the neurophysiology of intentions, and our current non-cartesian view of behaviour, could lead one to reach polar opposite views on the appropriateness of the judicial decision. One might ask if conscious awareness of an intention is in a sense a bi-product, an epi-phenomenon of certain brain processes, why should O'Connor have been exonerated just because his intoxication precluded the epi-phenomenon from occurring, so that there was a short circuit leading from his brain state to his action without him consciously recognising his intention to act. O'Connor's unified indivisable brain mind gave rise to stabbing behaviour. If conscious registration of the intention did not occur, then it could not be evaluated and, if necessary, vetoed. Issues such as these touch on the liberations which have been held in various courts of law regarding the distinction between irresistible and unresisted impulses. In general and, I believe, for good reason the law is not friend to those who seek to escape blame and punishment by claiming to be under the influence of alcohol and other

intoxicants. It tends to take a somewhat more generous view towards those with mental illness, although the extent and horror of a certain person's crimes may give rise to major anomalies. For example, it is completely beyond doubt that Peter Sutcfliffe, the Yorkshire Ripper, was floridly psychotic. According to all the psychiatrists who examined him, he was suffering from paranoid schizophrenia during the period in which he killed 13 women. He believed himself to be on a divine mission to rid the world of prostitutes. He regularly experienced hallucinations of God telling him, for example, to get on with his mission. Despite this, the prosecution successfully argued that he was fabricating his illness with the result that he was found guilty on all counts and, for two years after the trial, whilst in prison, he remained untreated. It was not until his transfer to a maximum security special hospital that treatment commenced. There is no question that people like Sutcliffe almost certainly require to be securely separated from the rest of society perhaps for the remainder of their lifetime. But it's important to point out that to achieve this goal, it isn't necessary for the law to conspire with those who are outraged by the hideousness of certain crimes by deliberately overlooking or minimising the role played by psychiatric illness. Another anomalous finding along the same lines was recently made by a Delaware Court in 1990 which found that a schizophrenic man named Sanders was guilty of murder, but was mentally ill. It sentenced him to death. Sanders killed a neighbour named Butler who was diabetic and who was in considerable pain as a result of the complications of diabetes. Such complications included gangrene of the leg which resulted in an amputation. Sanders became increasingly obsessed about the pain that Butler was suffering. Eventually his voices told him to stab and kill Butler, which he did. In choosing the death sentence for Sanders, a sentence currently under review by the Supreme Court, the jury failed to appreciate the extent to which command hallucinations occurring as a result of schizophrenia can be just as compelling and just as beyond the control of the individual as externally compelling factors such as dire threat. That decision is only marginally less cruel than the 17th century penalty imposed on the man from Konigsburg who thought he was God. In general, the law does recognise the potentially extenuating influence of psychiatric diseases such as schizophrenia on criminal behaviour, but it tends to place much more

responsibility for severe personality disorder on the disordered individuals themselves. The words written by Mr. Justice Hedigan in his judgment on Garry David, beautifully captured this sentiment. He wrote, 'Yet he, Mr. David, has been the self-destroyer. The author of his own tragedy. No-one, not even his absent parents or the orphanage minders made him steal, shoot or hate anyone. Even now, as he clings like some shipwrecked mariner to the wreckage, some obscure principle forbids him to accept the hand that beckons him towards rescue and the open door.' Perhaps the principles which underly the profoundly destructive behaviour exhibited by Garry David will forever remain obscure. But as we learn more about the determinants of behaviour, it's likely that the dense fog surrounding such issues will lighten. Several studies suggest that biological vulnerabilities predisposing individuals to abnormal behaviour may be present in a sizeable number of people with severe personality disorder but may be overlooked by judicial authorities. Dorothy Lewis, a psychiatrist from the University of New York, and her colleagues, have published two papers relevant to this matter. In the first study, published in 1986, she reported on the results of the detailed neurological psychiatric and neuropsychological assessment of 15 American death row inmates whose executions were imminent. All 15 had histories of severe head injury. Five had significant neurological impairment and six others were chronically psychotic. Two years later, Lewis reported on 14 American juveniles who had been condemned to death. Nine had major neurological impairment, seven suffered psychotic illness which occurred prior to imprisonment, seven showed poor performance on neuropsychological testing and only two of the fourteen had IQs above 90. Twelve had been brutally abused physically and five had been sodomised by relatives. Using various neuroimaging techniques on small numbers of other subjects, investigators have been able to show frontal lobe structural changes in association with grossly abnormal behaviour and have also demonstrated altered cerebral metabolism in the frontal and temporal lobes of violent offenders. Findings such as these in non-psychotic people with severe antisocial personality disorders, may have little effect on disposition. Currently there is little if any medical treatment which can be provided for such people in order to quell their behaviour. But perhaps the law might agree that in cases where developmental

and biological factors have joined together to markedly impair a person's capacity to comply with socially appropriate behaviour, it might be reasonable to lessen the approbrium of an undiluted guilty verdict. Such modified verdicts might be given even if for the public safety the period of incarceration following from the verdicts were no different from those which currently apply. In seeking medical and psychological advice on the deeply difficult questions regarding the relationship between mental and personality disorders, substance abuse and illegal acts, criminal law needs to partly liberate itself from its traditional adversarial stance, just as other areas of the law have done. A model for such liberation is to be found with the West Australian Pneumoconiosis Board, a Board which rules on damages which should be paid to claimants who have suffered lung diseases such as miner's lung, asbestosis or mesothelioma as a result of occupational exposure to dusts and fibres. The Board is advised by a medical tribunal which reaches an uncontestable decision about whether the person suffers from a particular disease and the level of disability experienced as a consequence of the disease. It does not attempt and is not allowed to make any ruling on the relationship between the environmental exposure and the disease. In presenting before the Board the opposing parties forego the opportunity to have medical experts appearing on their behalf regarding opinions relating to the diagnosis and to the disability. Were a similar system to operate within the criminal law, it would overcome the problem that expert psychiatric witnesses sometimes feel obliged to reach somewhat more partisan conclusions than they might otherwise arrive at if they've been called by either the Crown or the defendant. A non-partisan court appointed psychiatric tribunal might reach a conclusion about the presence and severity of mental or personality disorder at the time of the alleged offence and the likely extent into which the disorder might generally influence the capacity to form intentions and control the consequences arising from those intentions, whilst leaving to the judge or the jury the ultimate decision about whether the person actually committed the crime and whether in the particular case psychiatric factors influenced the mens rea and the criminal act. Such a tribunal or a separate one might also assist the court in the sentencing phase by indicating whether psychiatric treatment either in prison or in a forensic psychiatric unit might be warranted. Recent innovations

in sentencing psychiatrically ill offenders contained in the Victorian Sentencing Act 1991 provide a flexibility which was lacking in the system until the Act was proclaimed. Because of the fear that defendants deemed mentally ill might end up being indefinitely detained at the Governor's pleasure, barristers representing defendants with overt mental illness, often shied away from even raising the possibility of psychiatric disorders in their clients. The Sentencing Act discourages such well intentioned concealment by including in one Section, provisions for convicted individuals of mental illnesses being sentenced to a hospital rather than a prison for a fixed period of time and in another Section for such people, when circumstances are appropriate, to be sent on monitored leave or even discharged rather than receive a sentence. In considering issues such as these, the law and psychiatry should take note of the words of Hans Reichbarch. He said, 'There is no more purpose or meaning in the world than you put into it. The answer to the quest of moral directives is therefore the same as the answer to the quest for certainty. Both demands are unattainable aims.' The quest to clearly rule on the role played by and moral weight given to mental illness within the criminal law seems to be one of the few areas of human activities in which both of these unattainable aims are pursued concurrently. This leads me to believe that we lawyers and psychatrists had better be kinder to one another than we have been in the past. If we don't receive sympathy from each other, we certainly can't expect to find sympathy from those outside our ranks as they witness our, some might even say delusional optimism as we try to find meaningful and consistent ways to approach the necessary but nearly impossible task which society has unrepentently lobbed in our corner for us to deal with.

Mr. Christopher Dane Q.C.

On a ledge in my grandfather's garage was a jar containing what was said to be Arnold Soderman's brain. Some will recall that Soderman was found guilty of murdering a young girl in 1936. He confessed that he had killed the girl as well as three other girls in somewhat similar circumstances. The confession to all killings

was put in evidence by the Crown without objection. The defence of insanity was taken. It was proved that his father had died from general paralysis of the insane, that his grandfather had died in the hospital for the insane, that his mother had suffered, for a number of years, from amnesia. Also, he had had a substantial quantity of alcohol to drink on the relevant day. Three doctors, Philpott, Allan and Ellery, were called in support of the defence and they deposed that he was not able to appreciate the nature and quality of his act and did not know that what he was doing was wrong. His appeal to the Court of Criminal Appeal and to the High Court and to the Privy Council, all failed, although the four judges of the High Court who sat were evenly divided on the question of a retrial. An ill-informed cynic might say that the man went to the gallows on the time honoured rule that the Chief Justice's decision prevails in the tie. The post mortem conducted upon the body of Arnold Soderman revealed that the body was well nourished, the face and neck were congested, the brain was congested and showed signs of early lepto meningitis with excess of cerebro spinal fluid. I'm told by Dr. David Ransom of the Victorian Institute of Forensic Pathology, that excess of CSF is associated with brain shrinkage and is seen in some forms of dementia and the report implies some degenerative brain disease causing loss of brain substance and mental change. The post mortem was conducted by Dr. Philpott together with Dr. Allan, each of whom had given opinion evidence at the trial in support of the insanity plea and I suggest that the examination of the brain only went so far as to satisfy them that their opinion was right. It is apparent that the natural inclination of the scientists to concern themselves with the reality of what may be observed, touched and described, is a more comfortable state of affairs than the lawyer's concept of the mind. The lawyer's concept of the mind was explained to a jury by Sir Owen Dixon in *The King* v. *Porter*, a case well known to this Society, a case of a father poisoning his child. Sir Owen said, 'I have used the expression disease, disorder or disturbance of the mind. That does not mean that there must be some physical deterioration of the cells of the brain, some actual change in the material, physical constitution of the mind, that disease ordinarily means when you are dealing with other organs of the body where you can see and feel and appreciate structural change in fibre,

tissue and the like. You are dealing with a very different thing, with the understanding. It does mean that the functions of the understanding are, through some cause, whether understandable or not, thrown into derangement or disorder.' Here is the other side of the proposition touching upon the difference between science and the distribution of responsiblity in society. Criminal law is not directed to the pursuit of or comprehension of matters scientific, but only to the control of human conduct in society. The conduct of an individual in the end is a matter of self control. Degenerated or disordered understanding that deprives an individual of his or her capacity to exercise self control will not be subject to the criminal law's instrument of control, that is punishment, but of treatment. One of the best expressions of the distinction between the brain and the mind was given by Dr. Charles Mercier in his book Criminal Responsibility, in 1905. 'Insanity is a disease or disorder, I prefer the latter term, not of this or that organ or tissue or part of the body as are the diseases which come under the perview of the general physician or surgeon, but of the whole individual who is the subject of the disorder.It is because the original seat of the disorder is in the central and supreme organ in which the whole individual and every part of him is summed up and represented. The man may lose his hand or his foot, his arm or his leg, and still remain the same man, the same personality. He may suffer disease of his heart or lung, of his liver or kidney, and yet his individuality, the character that makes him the man he is, is not only different from other people but recognisable as himself, remains unchanged, but when the highest region, the governing function of his brain is disordered, the whole man is a changed being.' Science continues to be attracted to the brain as my learned friend, Dr. Copolov shows, by referring to the interesting experiment of Benjamin Lippett. The primary conclusion of Lippett appears to be that there is a brain activity prior to conscious intention instead of vice versa, and then movement. The problem with that study is that it does not identify what it is that the brain is activated about before the relevant intention is formed. There is no necessary nexus between the pre-intention brain activity and the ultimate act. Accordingly, it might be said that the brain activity is no more than an essential catalyst for the process of the formation of an intention and an act. More

important for the criminal law, is the discovery by Lippett of the power of veto between conscious intention and of the power of movement.

If the three concepts spoken of by Lippett are numbered one, conscious intention, two, brain activity, and three, movement, Lippett would say, primarily, that the order is two, one, three and then, with the concept of veto produced, the sequence is two, one, two, three.

This experiment shows a separate and identifiable brain activity for the process of veto.

Lippett may have done no more than identify the moment of will or point where self control must be exercised. Unfortunately, in a disordered brain and probably in a disordered mind, the timing of that moment of will is irrelevant to the matter of responsibility being imposed upon the individual by the law.

To avoid responsibility by a successful defence of insanity, is no longer as attractive as it once was in the days of capital punishment. The dust has now decended upon the defence, but it is still occasionally brushed down in order to avoid the intrusion of whimsically minded judges when one is presenting the delicate defence of sane automatism. Returning to Soderman's case, Sir Owen Dixon, in his judgment granting a retrial, referred at page 215 to the false appearance of simplicity in the McNaughton Rules and says, 'When the derangement of the mind manifests itself only intermittently and in acts of passion, frenzy or the like, the question whether the party accused labours under such a disease of the mind that he did not know that what he was doing was wrong, may well provoke a response to further questions, namely what is meant by 'know' and at what stage in the course of his progress towards the commission of the acts charged, must the capacity to know cease.' In general it may be correctly said that if the disease or mental derangement so governs the faculties that it is impossible for the party accused to reason with some moderate degree of calmness in relation to the moral quality of what he is doing, he is prevented from knowing that what he does is wrong. Now while it is true that the law is not concerned with the chronological order of the processes of the brain in the formation of intention through to the criminal act, what has just been quoted refers to a continueum, namely, in the course of his progress towards the commission of the acts charged. Combining Dixon and Lippett, it

might be said that at the moment the issue of vetoing the intention presented itself to the brain mind, then that is the stage in the course of the accused's progress towards the commission of the acts charged that the test is applied. If the mind is so deranged as to deprive the accused of the capacity to veto, that is exercise self control, then treatment is required and criminal responsibility is avoided. If on the other hand the acts charged are the product of a lack of self control not referable to a defect or disorder, then the failure to veto will produce criminal responsibility. Now the latter proposition clearly commended itself to the jury in Soderman's case. According to them at no stage in the course of his progress towards the killing of the girl, did he lose his capacity to know. According to them at the moment of veto, he was not deprived of his self control and thus his failure to veto, his intention to kill, produced a conscious and voluntary act. It follows that in the jury's opinion, Soderman had a normal brain, functioning normally and the external stimulus of seeing a girl in the street was not sufficient to prevent him knowing that what he intended to do was wrong. The relationship between involuntariness and insanity was recently considered by the High Court in *The Queen* v. *Falkner*, a case wherein a woman was charged with the murder of her husband. The issue arose within the context of the admissibility of evidence adduced by the defence from two psychiatrists concerning the issue of non-insane or sane automatism or dissociative state. What I'm about to say of Falkner's case comes substantially from an excellent analysis of that case by Stanley Yo, the Senior Lecturer at Sydney University in his article in the 14th Sydney Law Review. Falkner, as I said, was a case of a woman killing her husband with a shotgun. She was separated from him on account of his violence towards her and her discovery that he had sexually abused their daughters. He entered her house unexpectedly, sexually assaulted her and reached at her, apparently to grab her hair. From that point on the accused claims she could not recall anything until she found herself on the floor with her shotgun beside her and her husband lying close by. The defence of sane automatism caused by extraordinary mental stress was raised and this was called psychological blow. The High Court was prepared to recognise a state of dissociation as constituting automatism and turned to consider the distinction to be made between sane and insane automatism. The power of self control of an ordinary

person was determined to be the touchstone between the two. The court said for sane automatism, only an extraordinary blow will suffice so that the ordinary stresses encountered in daily life are insufficient. This concept was recognised by the Canadian authority of *The Queen* v. *Ravie* where Mr. Justice Martin said, 'In my view the ordinary stresses and disappointments of life which are the common lot of mankind do not constitute an external excuse constituting an explanation for the malfunctioning of the mind which takes it out of the category of disease of the mind'. It would appear therefore that an accused who enters into a dissociative state from ordinary stresses will most likely be suffering from a disease of the mind, that is, insanity. On the other hand, the entry into the dissociative state from extraordinary stresses will most likely be free of disease of the mind and thus require no treatment nor punishment. For sane automatism the court referred to the power of self control falling below that of the ordinary person and adopted Lord Denning's test of recurrence, an external factor test, namely, any mental disorder which has manifested itself in violence and is proved to recur, is a disease of the mind. The external test refers to the difference between mental disorder brought about by internal causes such as cerebral trauma, epilepsy and arterior sclerosis which amounts to insanity and mental disorder produced by external factors such as physical blow or intoxication via drugs or alcohol which amounts to sane automatism. That external test suffers under analysis in the same way as I criticised Lippett. That is, the sequence of the process identified in the experiment is of little significance in a disordered mind in the same way as the external influences on a disordered mind. Chief Justice King in South Australia observed in the case of *Rabie* that the significant distinction is between the reaction of unsound mind to its own delusion or to external stimuli on the one hand, and the reaction of a sound mind to external stimuli on the other hand. While the High Court has applied itself to this topic in recent time, it would seem that it has not altered the law of insanity which prevailed at Soderman's trial. Perhaps it might be said that there has been no development of this branch of law since 1952 when *The King* v. *Stapleton* was decided. It was decided that 'wrong' referred to in the McNaughton Rules was not merely contrary to law. The question is whether the accused knew that his actions were wrong according to the ordinary principles of reason-

able men. Returning once again to Soderman the verdict seems indeed harsh. A recurrency test of Lord Denning was adequately fulfilled by his uncontested confession to three other killings in similar circumstances. So too the external test with the objective power of self control being the touchstone of the High Court in *Falkner*. A more ordinary external stress or stimuli than seeing a pretty girl in the street could not be imagined. Thus the fact that Soderman failed to exercise self control, and veto the intention he had towards the girl, cries out that he had a lack of capacity and points clearly to insanity and the need for treatment. Fortunately, what was discovered in the post mortem, can at least today be detected by science. While a brain scan would have helped Soderman, his likeminded brethren of today do not face the same level of deterrence which is the criminal law's only mechanism for entering into the process of the mind before the execution of the act. If the penalties of the Crimes Act do not impinge at the moment of veto, then they will be applied unless the accused is insane. I am not convinced that the prospect of punishment has the slightest impact upon the career criminal, and certainly not upon those who engage in an unpremeditated impulsive criminal act. General deterrence, which has been the touchstone or cornerstone of sentencing since retribution was rightly abandoned, can only be defended by reference to the great unknown hordes that would have committed crimes but for the current level of penalties. A more unscientific stab in the dark could not be devised. The public that is being protected and warned in yesterday's sentence includes the criminal that is going to commit the crime tomorrow. These problems were recognised by Dr. Reg Ellery in a paper he delivered to this Society in April, 1932 entitled 'The Plea of Insanity'. He, like Copolov, said the hope was to be found in psychiatric assessment. You will recall that Dr. Ellery was the third doctor called at Soderman's trial. In his article, four years before his evidence, he said prophetically, 'To raise a plea of insanity in any criminal case at the present day is to raise also a nasty suspicion in the minds of many. The plea of insanity has gained popular disfavour because the unenlightened public thinks that such a defence is invoked only as a last resort in hopeless cases where shady lawyers and dishonest doctors have put their heads together'. How true were those words. I don't believe general deterrence is as significant as it is touted to be. And so the stability

of society is not ensured by the presence of criminal law. That can only be improved by a rise in the level of individual responsibility which will increase self control via respect for one's fellows. That includes respect for those who are unfortunately suffering mental illness. My grandfather's life long study of the mentally ill was not greatly advanced by the examination of the brains of criminals hanged at Pentridge between the Wars, although I understand he discovered tissue damage in that of Soderman, but that may only go to support the proposition that mental illness is not to be exclusively found in the brain, but in the whole that marks a person as an individual.