PROFESSIONAL SENILITY

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AGE is expected to bring wisdom and experience its compensations—if not outright profit. At least that is what the physician or surgeon believes as he struggles through the frantic trauma of a first year residency—also compensated contemporaneously, we are told, by a grossly overloaded pay packet after a less than impecunious studenthood.

Later, with the baby boom successfully deflated by the spectre of zero population growth, also the upward spiralling of private school fees; later, with the added experience of single parenthood and the immediate family acquisition that comes nowadays through rapid divorce and remarriage; later, the interest of the physician, or lawyer, or pianist turns to old age and to the deterioration which ends in the only certainty a capricious fortune has bestowed upon him, that is death.

Consequently many of us, or rather you, must look with envy, if not deeply felt jealousy, at the newspaper pictures of the Annual Assizes with tottering judges processing into Church, flamboyant in form and face, with uneven step but presumably agile brain. Physicians gaze with unrestrained awe at their seventy-five-year-old colleague who has finished a delivery and is about to do an electrocardiogram on another ancient citizen who is quietly waiting for his centenary telegram from the Queen. But those of you in your fifties, thus thrilled, will be less than joyous to be driven at top speed in your coronary care ambulance by a seventy-two-year-old driver who neither sees the traffic lights, hears the railway boom bell, nor knows which hospitals have an M.I.C.A. unit attached to them. There are licence requirements for drivers' vision when they reach a certain age, in some States, yet no one looks for tremor in the senior surgeon's hand or cataract in the radiologist's or gastroscopist's eye. We are much more concerned with guidelines for the technical aspects of medical care than we are with the problems of how the physician thinks. The problem is real but perhaps I slightly exaggerate. Having reached your coronary care unit in an ambulance driven by a reasonably fit, if overweight, thirty-five-year-old you will find that you will be looked after by an intern, a graduate less than two

years' standing, and not by a senior consultant. There are few grey-haired nurses in coronary care; and probably no grey-haired or balding physicians at all. Older doctors can resist the increasing waves of technology and specialization, or medication and ionic balances. They rely to a much greater degree on their "experience" and that foolish respect of juniors for elders, a respect which forgives and sometimes does not question ignorance or banality.

Why do we then imagine that experience fails us rather than it persists in increasing amount with deeper and deeper wells of profundity being tapped till a veritable Solomon is what every professional over fifty is sure to be? Are decision-making abilities enhanced or decreased with age?

Why do positions of influence come to be held by older men or, sometimes, women? Obviously all marginal command posts are filled by promotion so that some additional seniority is to be expected. Not always, however, is it associated with age, so older people must be able to do some things better. Is it the respect for age which characterized earlier generations but fortunately no longer is itself a criterion for respect any more? "More reliable", "greater sense of responsibility" are the words to be examined before being discounted.

There is not an easily defined distinction between the deleterious effects of ageing and the signs and symptoms of senility. Regrettably the epithet "senile" and the term "senility" are used invariably in a pejorative sense and this is the state in which a person, professional of any kind or otherwise, demonstrates certain concomitants of old age such as loss of vision, decrease in hearing ability, speech changes both of pitch and speed, slowly and unsteadiness of gait and a confusion of memory which remembers a roseate childhood in remarkable detail but forgets yesterday's date and today's day. Oh yes, and baldness, even in both sexes. The cause of many of these manifestations of senility is essentially a change in the blood supply to the parts affected, though Aristotle believed, like many other recent physiologists, that the baldness was due to excessive male sexual power. Later we may mention some other manifestations of ageism. (Incidentally, I prefer to retain the "e" in both this new word ageism and the other more accustomed term ageing to "agism" and "aging"—the latter look suspiciously like "agistment".) We may call it by grandiloquent names such as atherosclerosis or atheroma, and indeed spend hours with highly sophisticated equipment and enormous research grants trying to elucidate the causes of this restriction of blood supply to vital parts of the brain, restriction which causes death of tissue such as centres controlling balance and vision, restriction of blood supply to vital nerves such as those of hearing and expression and the co-ordination of movement.

And so, numerous theories regarding the reason for narrowing of these simple blood tubes have been devised and tested to elucidate the cause, and hopefully to lead to prevention of the disease and consequently a maintenance of the professional life span, or what is called in a paper in the *Journal of Gerontology* "Successful ageing".

Walton, in a recent paper, reviewed the four most widely entertained theories and the ones which, if you will forgive me, have most successfully aged over past years. The detail is both boring and irrelevant to us this evening. However, as many of you, and some of us, have already got some of these changes of senility at work—our scalps, our spectacles, our forgetfulness and our uncertain steps are reminders that our neighbours are affected, if not we ourselves—then the essentials of some of these theories must be considered as we seek to stave off the threatening spectre of senescence.

First of all, there was the degenerative theory which proposed that the localized areas of damage in the vessels, the plaques, were produced by degeneration of some of the normal constituents of the wall. Indeed, there is acceptable evidence that such does happen in the ageing process. Ageing itself therefore is thus a risk factor; though not one we can "give up" as easily as smoking or eating cholesterol-filled foods.

However, the atherosclerotic plaques are features in the young, too, and other evidence seems to suggest this is not an adequate theory for the continued destruction of our arteries.

Then localized clots or thrombi were thought to occur. They stuck to the wall and were overgrown by the normal lining of our blood vessels—the thrombogenic theory was born as long ago as 1852 with Rokitansky as progenitor. Experimental evidence and the incidence of such thromboses in veins which never ever get atherosclerosis in the body, put paid to this theory as far as initiation of the plaque is concerned.

However, it did lead to the concept of "platelet stickiness"—the platelets are rather nondescript components of the blood elements which are nevertheless extremely important in clotting mechanisms. The specialists in this area have described many of these elements, a "cascade" of clotting elements. The platelets nevertheless have been conclusively demonstrated not to be present in early plaque formation by modern immunohistological examinations.

Thus the fourth, the insudative theory, is currently in vogue. Plasma—the fluid in which the cellular elements of the blood are suspended—"insudates" or is absorbed into the wall and forms the basis for the development of the plaque and subsequent development of the atherosclerosis which closes off the artery and deprives the area of its necessary arterial blood. It is the fat bound with protein which

in the serum is called serum lipoprotein, which causes the trouble. One particular fat, cholesterol, is now a very fashionable one and it, as well as triglycerides and phospholipids, are bound to protein so that it is called, grandly, macromolecular lipoproteins. It is the insudation then of lipoproteins and fibrinogen into the wall of the arterial vessels which causes the changes we associate with senility and other conditions. Put a little more technically, the arteries are essentially not impermeable tubes which are gradually thickened by an accretion of material laid along their passage length initially in isolated patches like the walls of the unpleasant sewers beneath Paris along which it is possible to pass in a small boat. Rather the tubes are not like thickening sewers, but are composed of a complex lining and reactive gel through which the blood rushes at considerable pressure and normally some plasma proteins slide through the wall to be removed by special collecting channels on the outside. During this permeation process certain low density lipoproteins called LDL or, if very low density, VLDL, can be trapped and form the basis of the reactive changes. And this forms the basis for a series of at least four lectures in any medical school's Department of Pathology.

Does it matter?

Let me tell you something about senility's defects and their impact on a professional life, including legal as well as medical sources.

Senility refers to the feebleness which accompanies old age but it also infers, according to the *Concise Oxford Dictionary*, the garrulity and other accompaniments of old age. It is also broadly defined as "old age" itself and the resulting complications therefrom. You may dislike such a broad definition, regarding it with legal superiority as being typically medical, and loose in an etymological sense, but I shall not apologize as it is a legal definition, though American, from *Selected Readings Judicial Discipline and Removal*. Even the term "old age" is not easily defined. The young successful career woman who falls pregnant at thirty-two years of age is called, obstetrically, an elderly primigravida even though she is still a rising light in her own profession. However, her obstetrician will resent deeply any suggestion that he at the age of sixty-five, is not supremely equipped by experience, or something, to deal with his patient, elderly in the gravid sense.

It is in this realm of decision-making that the effects of senility are usually said to be extremely important; perhaps the nature of the activity in old age is the criterion of effectiveness.

In the legal profession there have been a number of examples where infirmity has hampered the effective working of the Court. You may be aware of some of these yourselves, but I do not quote from this State.

A well-defined and common example of senility's defects is deafness and it was that of Justice Gabriel Duval who spent twelve years as a member of the Supreme Court in America before finally resigning. Now I should point out that "deafness" in the elderly may be only a cause for irritation in one's grandparent, it can be selectively useful for some elderly surgeons or clerics or their listeners, but in a judge deafness could surely be deemed to be inappropriate, to say the least. Justice Duval indeed sat on the bench for more than ten years after he had become so deaf that he could not hear a single word spoken in Court. The New York *Evening Post* a year before his resignation noted, rather unkindly I think, that "he was a person not beyond the necessity for such aid to his judgement". But Justice Ward Hunt was in an even more parlous state. After five years in office, he suffered another of the frequent concomitants of senility—"he was struck speechless with paralysis". He refused to resign and for three years was a totally incapacitated member of the Supreme Court.

There is a great deal of romantic worship surrounding Oliver Wendell Holmes, both the man and his life and work, and it has not been customary to admit that it was senility which forced "the Chief's" retirement from the Court at the ripe age of ninety-one years. Ten years before he actually resigned, Taft had felt he should have done so. For many years he (Holmes) was accustomed to taking cat-naps on the Bench, a habit which greatly annoyed Taft and which is another of the widely recognized signs of senility. One day when an elderly man in the front row of the spectators' section of the Court had fallen asleep, Hughes sent an usher of the Court to awaken him. Meanwhile he turned to Holmes who was on his right, and commented "only Justices are allowed to sleep in this Court". When Holmes celebrated his ninetieth birthday, the whole of the American nation celebrated the event, though he began to deteriorate from then on and eventually was asked to resign two years later which, to he credit, he did without resentment. At the risk of suggesting to you that our American legal colleagues have cornered the market in senility, I just want to give the lawyers a rest and mention some politicians who have manifested signs of senility, though of course many politicians were lawyers prior to the call of the hustings.

Thomas Woodrow Wilson was born in 1856 and from 1874 had a number of fairly serious illnesses. Interestingly he always sought refuge from these in the faraway English countryside. He was inaugurated as President in 1913 but in 1905, he had a hernia operation though it had been called a haemorrhoidectomy and later he had a retinal haemorrhage, and these, with other signs of arteriosclerosis, were evidence of senility's unwelcome manifestations especially at

such an "early" age. At forty-nine, Wilson was demonstrating these changes which are usually progressive. He had left Princeton after a regrettable battle for the Presidency of the University and this led to the Governor's Mansion, an accepted route to the White House. On the threshold of the White House he held tenaciously to his strong principles; indeed he equated compromise with failure, almost with sin. You all know that such a temperament is a liability in the political or academic jungle, where absolute integrity is an indulgence that can rarely be afforded and will probably never be repaid.

Mind you, Wilson brought other equipment with him to the White House—a stomach pump for his gastrointestinal symptoms, analgesic tablets for his "neuritis" (diagnosed in 1896 as writer's cramp), and his recurrent headaches. He quickly acquired a young naval doctor whom he had noted in attendance, to become his naval aide and physician, and thus Cary T. Grayson became an indispensable part of the White House menage. In 1919 he (Wilson) had various illnesses including something called influenza which left a permanent change, something like a stroke. At sixty-two he had another; this time he stumbled a number of times on the deck of a ship returning him from France where he had inaugurated the I.L.O. and a number of other peace initiatives. In spite of the opinion of his advisers he set off on a barnstorming tour of America and later in 1919 he stumbled on a step and had practically to be lifted on to the platform. His face was described to be "pale and wan. One side of it had fallen, and his condition was frightful to behold". When Starling spoke with him he noticed that when Wilson smiled "the right side of his face only responded to his command". A facial paralysis is often a recognized component of a stroke when the blood supply to a critical area of the brain responsible for face and limb movements is damaged and a classical galaxy of signs and symptoms make the diagnosis very clear.

Incredibly, from 1919 till 1921 the Presidency of the United States of America was sustained by a triumvirate of people: his wife Mrs. Wilson, his Secretary Joseph Tumulty, and the redoubtable Dr. Grayson. He attended one Cabinet Meeting in 1920 and demonstrated all the signs of anosognosia—the lack of knowledge of a disease. The subject may be unaware of, or fail to accept, the presence of paralysis, blindness, or loss of speech. Some suggest that the denial of crippling symptoms is a form of self defence and they may be attributed to an incorrect and less serious cause. Imaginary situations may be invented to account for them.

While we could continue with examples of the unfortunate effects of ageing, and some more will come to mind as we proceed, the early

comments which were made in relation to the narrowing of blood vessels are not, of course, an explanation of why ageing should occur. Perhaps we should go on to infinity. In the very broadest terms, as Sir Macfarlane Burnet said in the *Lancet* in 1973 "Ageing and death of metazoan organisms are essential to the evolutionary process and the age at which they happen must be related to the life style of the species concerned".

Consequently theories of ageing have evolved, but only over the past ten to fifteen years, because Gerontology, if I may be permitted another indulgence, is a very young speciality. Indeed the theories of ageing have evolved mainly since the explosion in knowledge about molecular development and structure since the 1950's. Thus the discovery of the knowledge of the mechanism by which the information contained within the nucleus could be transferred to the cytoplasm surrounding the nucleus led logically to theories regarding the molecular ageing within the whole cell. However, seeing the organism as a whole may be regarded as more or equally important as its constituent cells, a controversy arose over the relative importance of intrinsic ageing of the cell in relation to ageing of the organism.

A range of theories was consequently evolving in this wider, more basic area of scientific research which sought to explain the essential features of ageing or senescence.

Two features were important—first, the gradual decline in the adaptability of the organism to its normal environment following the onset of reproductive maturity and, secondly, the fact that each species has a more or less fixed life span. Thus frogs can live for twelve to fourteen years, goldfish can live as long as forty; tortoises, they say, can live a century at least and probably much longer. This concept presumes that aging commences after maturation while some workers would suggest now that the processes causing ageing may commence in intrauterine life of the embryo (and you can't go much earlier than that!) and the commencement of ageing is really unknown. Also it is presumed that the second criterion—the life span—has also been fixed and is inevitable.

In relation to the cellular theories, Orgel in 1963 proposed a theory which, though now not in favour, was important in developing the cellular concept of senescence. He proposed that mistakes may occur in incorporation of amino acids into a protein and thus faulty proteins would be produced leading to further errors. The errors can occur at any stage of replication, transcription and translation or even later. His theory, called the "error catastrophe" theory has now been considerably modified and most papers currently published in relation to this theory are done so as to discount the theory or to limit its possible

application to senescence in man. It was understandable that another theory should quickly follow Orgel's hypothesis and Hayflick proposed one at the same genetic or molecular level which suggested that ageing is part of the developmental programme of a cell. In other words, if twenty or thirty years ago a cell was presumed to be able to divide and replicate itself forever, Hayflick and Moorhead demonstrated in the early sixties that normal vertebrate cells have a limited proliferative capacity and this limitation is due to functional decrements which occur before loss of division ability. This is programmed in some way so that the existing accurate programme is shut off and the ageing genes are activated.

There followed the inevitable modifications of these two cellular theories, some suggesting that synthesis of new isoenzymes is responsible for changes or others suggesting that new genetic codes were responsible and so "isoenzyme shift theories" and "codon restriction hypothesis" have been postulated but none is either authenticated by experimental evidence or adequate on its own to explain the variety of changes in senescence. Sir Macfarlane Burnet produced, as one of a remarkable series of stimulating monographs; written since his retirement, I may add; a genetic approach to ageing which suggests that a series of mutations in the somatic cell DNA is responsible for the ageing process. His theory is also being modified and widened to suggest that age phenomena are genetically programmed but subject to environmental stresses of many types. Ageing must be multifactorial, different in different life forms and in many species is the end result of a summation of many processes.

In the behavioural field there are other theories, the most widely known being the "disengagement theory" which suggests a progressive withdrawal of the elderly from the social and behavioural norms of their groups. In essence it deals with the complex interaction between people and their physical and socio-cultural environment. Some of the confusions arise over the difference between chronological age and the age at which a person is considered to be "old". The concept of old people detaching from society and intimate social contact is explained as being "normal". In dealing with the isolation of the aged, if such is "normal behaviour", then we need to take disengagement theory seriously in looking after the elderly or helping them to look after themselves. It is nevertheless essential to separate depression and its significance from disengagement. Which is preferable—the old woman alone and brooding in silent isolation, or thirty of them busily playing bingo, legally, at a social centre?

In literature we have a remarkable example of disengagement going wrong in a professional—a monarch this time which is a profes-

sional role if ever there was one. King Lear, when over fourscore years, decided to counter-balance a decrement in his kingly role with the maintenance of the fatherly role with his three daughters. You will remember that he loved Cordelia but Goneril and Regan were not really nice girls. Anyhow, he retained a hundred knights to support the royal role and soon Goneril and Regan were wanting to reduce this to five. The commanding father and obedient daughters had changed their roles. Cordelia he had cast away and though later reunited he found he was first rejected by the other two and then Cordelia died. His authority role was easily eroded; the balancing role he chose as father was denied by two of his daughters. Disengagement did not work as planned for him.

What is the fate of the senile professional then? Is his creativity crushed and destroyed by a combination of error catastrophe, genetic mutation, immune mechanisms and disengagement? In literature there are, however, some examples of the creative process still being alive and functioning. Knowledge about the nature of the creative process itself would be helpful in analysing its failure. There is, as yet, no known "creative nucleus" in the mid brain or occipital cortex which could be partially ablated in the quest for information regarding its components, hopefully to discover which of them is absent following such ablation.

Niederland presented some points about the creative artist which may contribute to understanding this process. They may not immediately seem relevant to us but some of them make worrying reading if there is some self recognition apparent. For example, a more or less considerable degree of psychopathology was common to all of them—their capacity for single-minded isolation and lonely brooding mentation (Michelangelo was described by Raphael as being "lonely like a hangman" but he did have lots of problems). They had an ability to withdraw from complex emotional involvement with the world—like many scientists and academics, including lawyers. Indeed their relationship to reality was generally restive and moody with, nevertheless, often a heightened sensory perceptual and intellectual sensitivity to stimuli.

Trollope died at the age of sixty-seven, in 1882. He had managed in this life span to write forty-five novels, many short stories and articles, travel accounts, and was beginning another novel. He is of interest to us in that he continued to write when others were retiring, "disengaging" or enjoying the fame which had come upon them. Trollope had been the fifth child of seven born to Thomas Anthony and Frances Milton Trollope, the latter to become well known as Fanny Trollope. Trollope Senior was a man of vaulting ambition,

violent rages and minimal sense, so that Fanny Trollope, his wife, turned out novel after novel to support, feed, clothe and hold her family together. Young Anthony Trollope had a remarkably deprived childhood, poor and neglected, two of his three elder brothers dying of consumption and two sisters of the same complaint. In a childhood thus spectacular for its losses, his mother had time only for his brothers while his father shut himself away compiling an ecclesiastical dictionary and brooding in his melancholy rages. Trollope's literary critics say that he was driven to create his own fantasy world of security: his ecclesiastical security he devised in the church establishment (the Barchester Series) and his desire for natural law and order is shown in the Parliamentary Series. What better revenge on a neglectful mother and a feckless father than to produce novel after novel to match his mother's literary productivity and outdistance his father's ecclesiastical delusional states?

Other novelists who continued to write in their sixties included Defoe, George Eliot, Galsworthy; in their seventies were Henry James, Mark Twain, and a host of poets who lost none of their creative power. Names such as Whitman and Yeats, T. S. Eliot, Hardy, Tennyson, Frost and Wordsworth and, of course, George Bernard Shaw are among the elderly creatives. Perhaps three poets who were not only productive almost to the last days of their seventies but this in spite of wretched health and the painful marks of senescence I have mentioned, were Wordsworth, Tennyson and Yeats. Wordsworth and Tennyson both became voices for comfort and reassurance in spite of early writings about the approach of old age with varying degrees of piety and terror, rebellion and resignation. The motive is difficult to elucidate; the spur to creativity could be either the wish to remain omnipotent by undoing the frightening thing or the intellectual determination to defy the threatening annihilation of the narcissistic self which is essentially the poet's genre. Tennyson early developed a sense of immortality, a sense cultivated by many academics and coupled with the desire to remain omnipotent; as old age approached, he wrote more and more in a pietistic and sentimental way about it. His *Crossing the Bar*, written in 1892, when he was eighty, is even for his severest critics a most deeply moving poem and in the year of his death Buckley says he wrote the best of his last lyrics in *The Silent Voices*:

"When the dumb hour, clothed in black
Brings the dreams about my bed
Call me not so often back,
Silent voices of the dead
Toward the lowland ways behind me,

And the sunlight that is gone!
Call me rather, Silent Voices,
Forward to the starry track
Glimmering up the heights beyond me
On, and always on!"

Yeats, contrary to the other two, though similarly affected in old age, was much more involved with interpreting his youth in his old age as in *Sailing to Byzantium*, and *A Prayer for Old Age*, and Yeats' last plays and poems are his most demanding for comprehension but then he was also an Irishman. In this creative exercise the self of the poet or author persists into old age in spite of the disasters of life and this self has the power to make into words the most profound and elemental concerns of the self and also to make them acceptable to the world at large and often to win the world's attention. Creating is a chronic disease. It is agonizing, debilitating and discouraging; but also persistent. Its fate in old age requires more investigation, perhaps especially in poets and writers with careful analysis of how the forms and styles evolve and what images and concerns characterize later rather than early works.

Simone de Beauvoir in *The Coming of Age* in 1972, maintains that a repetition of themes is characteristic of "a falling off" as the artist approaches old age. Others would say that indeed all artists do anyhow is to repeat.

It is interesting in this context of creativity that one of the immortals in the medical scene used one of Trollope's novels to make comments regarding the stages of the physician's life. William Osler has innumerable societies and lectures named after him: he revolutionized medical teaching and writing and propounded many famous aphorisms, the latter the more valuable for having been embalmed in a book called *Osler, Aphorisms from his bedside teachings and writings*. He had a remarkable career at McGill in Canada then Johns Hopkins in the States, and finally as Professor of Medicine at Oxford, dying at over seventy years of age. One of his statements recorded in the Aphorisms is that "The successful physician starves the first ten years, lives on bread and butter the second and may have cakes and ale the third decade". Although this may have the hyperbole permitted for emphasis in England, and the accuracy true in Australia, he nevertheless also stated that a man's real work is done before the fortieth year, a devastating thought, and that after the sixtieth it would be "best for the world and best for themselves if men retired from their labours". This was a recurring theme for Osler, and many people in the thirties associated him not with excellence in clinical medicine and for restoring the bedside manner to the patient but with the notion of

chloroforming all men over sixty years of age. In Osler's book *Aequanimitas with other addresses to medical students, nurses and practitioners of medicine*, he referred to a novel by Anthony Trollope, to whom I have already alluded, a book called *The Fixed Period*, not a gynaecological text but a book now rare and impossible to get. In this book Trollope discussed the advantage in modern life, of a return to an ancient usage of men stopping work at sixty, by precipitating them over a convenient high bridge and the plot of the book then hinges on the admirable scheme for a College of Contemplation into which a man would retire at sixty years of age for a year of contemplation prior to a peaceful departure therefrom at the end of this, by chloroform. As might be expected, the press and public were as avid for news and scandal then as they are now, so that Trollope's idea, discussed by Osler, soon became to many the recipe for retirement and exeat prescribed by Osler himself. Obviously this was not advice he felt impelled to follow himself when he reached the senile sixties,unless one regards his acceptance of a call to Oxford as a translation to a Trollope-type College of Contemplation and the subsequent years as a metaphorical chloroforming amongst those dreaming spires of academia.

There are some less favourable anecdotes regarding men of action in their seventies which may highlight for us perhaps the importance of choosing a profession for one's senility. Admiral Sir Francis Bridgeman was First Sea Lord until for reasons of health he resigned in 1912. He nevertheless continued to hunt three days a week and it was rumoured, when the press published his hunting activities, that Mr. Winston Churchill, First Lord of the Admiralty, had used illness to dispense with Bridgeman's services. There was a debate in the House during which Churchill read out private letters from Bridgeman which indicated the latter's own anxiety about his health and Churchill defended his peremptory dismissal of Bridgeman by saying:

> "Sir, it is essential that the First Sea Lord should be thoroughly fit and capable. He must have good health and strength, not only sufficient to bear the daily strain, but to bear any extra or sudden strain or stress which circumstances may throw upon him . . . the matter is one which affects the lives and honour of thousands of officers and seaman afloat, and that directly affects the safety of the State".

Remarkably, Churchill's own uncle, Lord Tweedmouth, had been grossly impaired only seven years previously when he had been First Lord of the Admiralty, a more important post and as deserving

of a fit man as the First Sea Lord. The onset of cerebral degeneration prevented him (or explains his omission in) notifying his substantial holding of shares in Meux & Co. which then secured the contract to supply the Royal Navy with beer. Early in 1908 the Kaiser wrote to Tweedmouth who promptly supplied him with details of the Navy Estimates before they were ever presented to Parliament. Then he gossiped about the correspondence and the Kaiser's letter ended up in the hands of one of Tweedmouth's lady friends. He was displaced in 1908 but became Lord President of the Council and his grip on affairs continued to fail, so that when paying a valedictory tribute in the Lords to Campbell-Bannerman who was then resigning, he forgot about whom he was speaking. And finally, in his confused state he wrote a note to Lord Knollys who was Edward VII's Private Secretary offering the services of a number of his young nieces who would be delighted to entertain the King. The progress of his senile dementia, though only sixty years of age, would not be stilled and he died a year later in 1909.

It is interesting that Lord Moran, Churchill's own doctor, later reviewed in detail Churchill's medical history in relation to his own career and without doubt his senescence was seriously exaggerated by his arteriosclerosis and recurrent cerebro-vascular impairment. Churchill became Prime Minister in May 1940 when he was sixty-five and Lord Moran recorded in his book (*Winston Churchill: The Struggle for Survival*) how in 1948, and then in Opposition, Churchill showed the first signs of degenerative lesions in his cerebral system, at the age of seventy-three. In June 1953, the menacing threat of a stroke could not be ignored and it did, in fact, occur after a dinner for the Italian Prime Minister when Churchill could neither move from the table nor speak, a condition suggestive of intemperance to those not acquainted with his medical history. Churchill, characteristically, ignored and defied the prognostications about his health and two months later presided at a Cabinet meeting and over succeeding months reappeared in the House, made an impressive showing at the Party Conference at Margate and attended, in December, the Bermuda Conference with President Eisenhower and the French Prime Minister. Eventually he relinquished the Premiership in April, at that stage spending most of every day in bed. None of this is to denigrate the remarkable and laudable achievements of the man who was the saviour of the nation in their darkest days of 1939-41 but rather to alert us to the problems of senility in high office when even medical advisers will recommend against retirement in the interests of preserving a facade of normality in one who has the most important decisions to make in the country.

What then is the advice to the ageing or senile professional? When his cells and organs are replicating the wrong kind of protein, when his plasma and low density proteins are insudating quietly into his cerebral, coronary and peripheral arteries, and he is quietly disengaging himself from the socio-cultural norms of a lifetime, what should he do?

He should acquire the productivity of a Tennyson or a Yeats, the stamina and belligerence of a Churchill, the creativity of a Trollope, and with the prospects of genetic engineering, he would not fear the senescence of the error catastrophic type. But rather he will still be faced with the prospect of the Psalmist's three score years and ten as his allotted life span. It is unlikely he will not succumb when his span is completed irrespective of his genetic engineering.

Let me tell you a final anecdote.

Baldwin was Prime Minister three times, briefly in 1922, then 1924-1929, and again 1935-1937, and though he presented a typically obtuse English attitude in public, he was subject to enormous hidden tensions—regularly becoming pale, nauseated and sweaty before a speech and once when Prime Minister, he almost ran from a Cathedral rather than read the lesson. In Parliament he used to smell his notes and lick their pages and he scratched himself so violently that he would develop red excoriations on his face and head. Indeed he eventually developed a facial twitch involving his nose and found it impossible to remain still and also found it increasingly difficult to make decisions and was subject to minor unexplained "collapses" when his cerebral cortex was briefly deprived of blood. One of these occurred in April 1927, this year is the Golden Jubilee year of the occasion, when he attended a dinner at the Royal College of Surgeons—in London—and, as a post-prandial entertainment, the guests were shown the Museum. It was too much for poor Baldwin who quietly collapsed on the floor but the ubiquitous Dawson managed to put him quietly away from the other guests and discreetly returned him to Downing Street to remark, with less than his usual tact, that "it was merely a case of the heart of a very tired man going on strike".

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