Special lecture

Brain failure in private and public life: a review

William Gooddy

May I open my remarks with a quotation, dated 1796, translated from the Spanish of Don Francisco de Quevedo ("The Visions"):

> And what you call dying is finally dying, and what you call birth is beginning to die, and what you call living is dying in life.

We may suspect that one of the few matters upon which all human beings would agree, whatever their racial, religious, or political beliefs, is that, so long as life is desirable, we must strive and succeed in keeping our brains at a high level of excellence of performance. In our present-day world, so obviously disturbed by wars, famines, retreating and advancing ideologies, guerrilla warfare in the European Commission, party skirmishes, and rebellions in the Houses of Parliament, we are often reminded how precarious is this achievement. Especially in the forms of work which the neurologist believes are his special province, we study the brain damaged in their amazing variety of manifestations: the comatose (perhaps for ever, until our machinery for preserving the brain-stem is disconnected, or clinical starvation puts an end to our duties); the demented, the mentally defective, the cerebral withering due to a misplaced, deformed, or absent gene; the psychotic, the depressed, the hallucinated, the addict, the hemiplegic, perhaps with a language disturbance or space-time disorientation, in our organically or psychiatrically ill patients.

It is difficult to know into which or how many of these diagnostic possibilities we should classify the politician who regularly shows defective judgement, sometimes combined with heart failure, alcoholism, stroke, or even brain tumour or epilepsy; the political or religious fanatic who may also be a head of state; the public figure in business enterprises who had furthered his ends (and possibly those of others) by corruption; the war lord whose ambitions ignore millions of starving people; the maintainers of outmoded dogmas who have the power to inflict misery on countless millions of life-hours. Socially we may be aware of the trouble maker, the neurotically indecisive personality, the aggressive psychopath, again the alcoholic, the unscrupulous, the "drop out".

The situation is clearest of all, most convincing, in ourselves, when we are at a loss for an idea, for a word, especially for a name. How easy it is for us to remind ourselves of the failure of whatever it is that we need for a correct answer from those times (recent for some, remote for others) of taking exams; or from those occasions of stress, fatigue, or indisposition—especially after a drink or two—when the names of even our closest friends may momentarily escape us.

There are several reasons for concentrating on the subject of brain failure, the first being the most delicate one, the *personal* reason. If we succeed in giving up drinking, smoking, eating butter and the margarines which were supposed to be beneficial (but are not, apparently), keeping slim, avoiding a sluggish bowel, wearing a seat belt, taking a little aspirin; and perhaps being persuaded that a little alcohol—after a certain age, of course—may do us a little good; and then reacting homeostatically to news of plutonium in the laundry, unmentionable substances in the sea on our visits to the beach at Sellafield or certain parts of the Mediterranean, the alphabetic caprices of the distinction awards committee, finding a locked car on your parking space, worrying about the cerebral tumour your car phone may be installing, the loss of ozone between the top of your head and the sun, the impossibility of producing an addressed envelope on your computer—if we thereby avoid cancer, coronaries, strokes, traffic accidents, long-term, possibly lifelong treatment with antidepressants and neuroleptics (a euphemism for aids against madness and suicide); *we are all, all of us*, bound to decline into one of the most terrible of all medical fates, *brain failure*. Some of us may already be there. Who knows? Which of you, like me, has had, fairly recently, as far as he or she can remember, a normal brain scan of one form or another?

The second reason stems from the first one. As wealth, knowledge, techniques, and therapies increase, so the span of life increases: and populations freed from smallpox, yellow fever, malaria, schistosomiasis, leprosy, kwashiorkor, starvation, and so on, also increase. Since it may be within the capabilities of world policies (if not already devised, but already assisted by AIDS, warring factions, the IRA and ETA, and Bosnia Hercegovina), to ensure enough food for all (although curbing of the birthrate has to be the starting point of all policies), the medical profession, we ourselves, are already ensuring the production of greater and greater numbers of instances of brain failure.

The third point stems from the general

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An Address at the Meeting of the Neurological Associations of Great Britain and Spain at University College, London on 30 September 1993. The subject was suggested by the President of the Association of British Neurologists, Gerald M Stern, MD, FRCP. The text is a modernised version of part of the 17th Victor Horsley Memorial Lecture, first published in part in the *British Medical Journal*, 3 March 1979;1:591–3.

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principle that men and women become more powerful in human affairs as they grow older; and although they may grow wiser with experience up to a great age, the time must inexorably come when powers of intellect, and especially of insight, fail; and then these people are positively dangerous in proportion to the powers they wield and to the rate of progression and degree of cerebral damage before the problem is detected. The most frightening state of all occurs when high-level brain failure is detected but is concealed (usually not by the individual affected but by those who are dependent on the great one's favours) for reasons of policy, power, and profit. Such behaviour was clearly seen and well documented in the later days of Sir Winston Churchill.

It is perhaps to curb powers which may be impaired by the failing judgement or technical skills of later life that certain professions and trades have a statutory retiring age. Of recent years there has been much debate about what the retiring age really means. An "age of retirement", of becoming an "OAP" (old age pensioner), of getting a free bus pass and (sometimes) a cheaper seat on British Rail, free eyesight testing (alas, no more), must be related in the (possibly demented) corporate mind of some governmental committee to concepts partly social, partly medical, partly actuarial, derived from many complex features of daily life. One of the most obvious anomalies has been that, although women live longer than men, they could officially retire at 60, whereas men still have to soldier on until 65. Even though an equal age for retirement for men and women (it should be *later* for women) has been proposed, the idea was, in May 1993, shelved by the Prime Minister on the grounds of expense (or was it expediency?)

The privilege of never having to retire (and, perhaps, never to work either) can be seen in the 1922 Order of Precedence. After immediate members of the Royal Family we have a small group including the Archbishops of Canterbury and York, the Lord High Chancellor, the Prime Minister, the Lord President of the Council, the Speaker of the House of Commons, the Lord Privy Seal, Foreign Ambassadors, and then a group of the five Great Officers, one of whom is "Master of the Horse". The Dukes follow, and so on ...

I thought I had discovered, lower down in this table, one category to which a retiring age would apply—"Master in Lunacy"—but research at the Law Society has revealed that such people (now part of the Court of Protection) are legal, not medical, officers, so, presumably they escape the NHS age limit of 65. The Latin tag "Quis custodiet ipsos custodes?" must now be amplified to "Quis sanus custodiet ipsos insanos custodes?". A rough translation might be "Is there anyone still in his or her right mind who may be responsible for detecting our demented protectors?"

If you are still with me, you will realise that a Master in Lunacy with brain failure would pose a problem of transcendental technique for the neuropsychiatrist.

What is so special about the royal, religious, martial, judicial, or political mind and/or the brains of Princes of the Realm, great Officers of State (including the Master of the Horse), senior Officers of the Law, Admirals of the Fleet, Field Marshals, Marshals of the Royal Air Force, hereditary peers, statesmen, politicians, tycoons (some of them also peers) that those whose heads contain such remarkable organs should either never have to retire or else have a retiring age of 70, 75, or even older? At the time of composing this address (February 1993) the head of "Lonrho" stated that, at 75, he was carrying on for a further three years "at least".

Why should it be different for neurosurgeons and senior airline captains, for neurologists and locomotive drivers and tax inspectors? Is the choice of 65 made, presumably by some government Department of Senility, under a Minister of Decrepitude, for the reason that by that age the last drop of juice has been squeezed from his employee's husk; or, more kindly, that after some 30 to 35 years as a hospital consultant, say, a man or woman has earned some happy, diverting, and even useful time to himself among those people, animals, places, and things he or she loves?

It is some 30 years since I first contemplated this subject. Although there have been a few small buds on some branches on the tree of emergent public concern, I have still not found any satisfactory answers.

On the matter of *categories of brain failure*, this is not the time to produce a list of the problems. You are all experts on the subject. But I would like to mention a relevant example. In 1969 I produced a paper with Peter Gautier-Smith which mentioned 72 cases of neurosyphilis in my observation ward practice at St Pancras Hospital (UCH); but since then my own experience of neurosyphilis has greatly diminished. Instead we must be facing immense problems from HIV and AIDS. The rate of increase of these two disorders is indicated by the fact that in that doubly noble textbook, Lord Walton's Lord *Brain's diseases of the nervous system* 8th edition of 1977 (and 9th edition of 1988), AIDS is not in the index. But in *Neurology in clinical practice* of 1988, of which Professor Marsden is one of the three principal authors, these disease problems are interestingly covered.

I also believe that an interest in the chemistry of the elements, mainly in relation to the essential 14 elements (fluorine, silicon, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, selenium, molybdenum, tin, iodine), is likely to give astonishing results.

Again, there is no time for detailed discussion of diagnosis and management of brain failure; although these topics are immensely interesting.

The range of possibilities is exemplified by knowing that the tpr chart still has something

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to tell us, and so has the plain skull and/or chest *x* ray film, and so may the discovery of a bottle of pills on top of the lavatory cistern, or gin in the hot water bottle; not to mention the dry facts of the pathology laboratory from where a low serum B-12, abnormal thyroid findings, or a low serum immunoglobulin (indicating Madame Louis-Bar's syndrome (ataxia-telangiectasia) may refresh our memories.

May I briefly remind you, on the matter of techniques, how far we have advanced from unanaesthetised lumbar and cisternal air encephalography and angiography, through technetium and gallium scanning, into computed tomography (CT) and magnetic resonance imaging (MRI), where gadolinium may be added. We can now look at almost any aspect of brain dysfunction (even without positron emission tomography (PET), still of limited availability). MRI strikes me as possibly the greatest diagnostic advance for the clinical neurologist since I became house physician to Sir Francis Walshe 52 years ago this December.

These remarks bring me towards my chief point, about the neurologist's relation to brain failure in high places, in *public* rather than private life. All about us we have seen, and still see, examples of inadequate brain function in public ways of life, both of men and of women. Such power seekers, often more stridently ambitious than genuinely talented, seem to feel driven to regard themselves, in their body images and lifestyles, as specially equipped to assume responsibilities over other "ordinary" men and women and children, over you, and over me, as individuals. Much of the time they are quite wrong in their self assessments; and several of them seem mad. Only last week the Prime Minister is reported (*The Times*, 22 September 1993) as saying, in reference to some colleagues, that he "could name eight people—half of those eight are barmy". Many politicians have been promoted beyond their intelligence and capabilities. Their inadequate responses to high level decision making are bound to be barely disguised guesswork, in Ministries of U Turns. Whereas medical diagnosis gets more accurate, political diagnosis still resembles a mediaeval search for the transmutation of base metals into gold, a form of ineffective alchemy.

As a professional body, we must find some means of making known a set of rules about *ages of retirement*. Shall we continue to accept as reasonable a *general* retiring age of 65, even though we may be aware of much longer durations of individual brain excellence; and also brain failure at 50? Do we accept that it is wise that neurological physicians and surgeons, secretaries of state, Anglican archbishops and bishops, Roman Catholic cardinals, for example, lay down their expertise at 65 in order that a single weakening performer may be prevented from causing harm to the body, or to the soul, or, even more importantly, to the property of a single citizen?

We should be aiming for a set of adjustable rules to cope with the varieties of occupations. We may then aim for a general application of these rules, *with one vital stipulation*.

We do not need to make rules for people who have only themselves and a few close associates to look after; nor, perhaps, for those who are responsible for 10 others, or even 100 others. But when you get people responsible for 200, 1000, millions of people, then our rules have to become progressively more stringent.

We must go further than setting suitable retirement ages. We need to suggest a detailed medical surveillance for all those who take upon themselves the tasks, opportunities, powers, and especially the *rewards* from directing the lives of hundreds, thousands, millions. We already know, for example, that our legislators keep ridiculous hours for important decision making, frequently jet lagged, about national and international affairs, hours which are unacceptable for any other profession or trade. If the least lapse of a main line locomotive driver results in his being relegated to office work, or, at best, shunting duties, how much more important is the medical scrutiny for, say, members of the Cabinet, of both Houses of Parliament, board members of great corporations, highly placed legal officers, presidents of royal colleges, and other trades unions—not to mention members of the Arts Council.

It is a matter for our decision. It must be the medical profession which has to organise a campaign, preferably headed by the neurologists, towards these ends along the same lines which have already been used in the campaigns against smoking or the enforced use of safety belts for drivers and passengers, and crash helmets for cyclists, all over the country. Such work, always, in the early stages, of conflict and persuasion, would historically be seen as similar to that which ended slavery and transportation; ensured for the public clean water and adequate drainage; brought women the vote and seats in parliament and among the judiciary—even to hospital consultant status; and retirement pensions for the elderly (1906 in this country, 56 years earlier in France).

If we see the dangers of brain failure lurking, in a hundred different causes, behind almost any illness, at almost any age, shall we not, with our special talents and facilities, bring that recognition to wider notice? (The Labour Party already has a neurosurgeon among its members.) If we agree that brain failure is the more disastrous in relation to the number of people that the damaged person is responsible for, then the more stringent must our neurological supervision be.

The purpose of such scrutiny would be preventative, advisory; and not punitive: for many of the causes of brain failure are treatable, even curable, in the early stages.

If we accept some part of this theme, we shall be more positive in our clinical methods, and in our teaching, both inside and beyond our profession. We shall be more sympathetic to the problems of those liable to breakdown.

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Indeed, we shall be considering ourselves as well.

We shall then preserve, for everyone, the highest qualities of social existence, at a time when we sometimes appear to be crushed beneath the weight of the so-called "advances" which our brains have helped us to design.

Though inevitably we face what Don Francisco has described as "dying in life", the neurologist might humbly add a fourth sentence to his three:

And what you call dying is finally dying,
And what you call birth is beginning to die,
And what you call living is dying in life,
And what you call death is a lasting memorial.

Fanny Burney on Samuel Johnson's tics and mannerisms

The following are some further contemporaneous observations of the tics, mannerisms, postures, and verbal repetitions displayed by Samuel Johnson which support the notion[1-3] that he was a victim of Gilles de la Tourette syndrome (see *J Neurol Neurosurg Psychiatry* 56:1311).

Fanny (Frances) Burney (1752–1840) was daughter of the musicologist Charles Burney. She enjoyed a considerable reputation as a novelist and diarist, and as portrayer of the domestic scene she was the forerunner of Jane Austen. She became second keeper of the robes to Queen Charlotte in 1786 and married the French émigré, General d'Arblay. She was a favoured friend in Johnson's household.

Fanny Burney (Mme D'Arblay)[4]:

> He is, indeed, very ill-favoured! Yet he has naturally a noble figure; tall, stout, grand and authoritative: but he stoops horribly; his back is quite round: his mouth is continually opening and shutting, as if he were chewing something; he has a singular method of twirling his fingers, and twisting his hands: his vast body is in constant agitation, see-sawing backwards and forwards: his feet never a moment quiet; and his whole great person looked often as if it were going to roll itself, quite voluntarily, from his chair to the floor.

And in her *Early diaries*[5]: "The careless old ejaculations have, in almost every case been modified or effaced in the manuscripts of the diaries. . . . These almost unmeaning expletives seem to have passed unrebuked by Dr Johnson."

His repetitive utterances were often of a religious nature (frequent recitations of the Lord's Prayer) but coprolalia and scatological comments are very probable, although doubtless the loyalties and social niceties of his friends inhibited their histories.

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3 Pearce JMS. Doctor Samuel Johnson: "the Great Convulsionary" a victim of Gilles de la Tourette's syndrome. *J R Soc Med* 1994 (in press).
4 Burney F. *Letters and diaries*. London: G Bell. 1846.
5 Burney F. Early diary of F Burney. 1846;2:234. Cited by George Birkbeck Hill. In: *Johnsonian Miscellanies II* London: Constable and Co. 1897, reprinted 1966: 274–5.

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