

et al' who survived for 17 years with an isoelectric EEG. This unsubstantiated statement will be news to anyone ever involved in statistical medico-legal argument concerning the duration of vegetative survival following head injury or anaesthetic catastrophe. One essayist goes even further (p. 136), uncritically quoting claims that there are currently in the USA "10 000 patients who are neo-cortically dead, but who are being kept biologically alive by artificial means". Epitomising this confusion (and undermining the credibility of the allegations) is the statement that Karen Ann Quinlan suffered "neocortical death" (p. 260) whereas the Court record clearly established that she never had an isoelectric EEG.²

The very concept of "neocortical death", to which so many of the essayists refer, is never clearly defined. Although essentially neuropathological the term is repeatedly used as if synonymous with the clinical notion of the vegetative state. Neocortical death, *strictu sensu*, is a very rare variant of PVS. Most cases of PVS are due either to anoxic or ischaemic insults (insufficiently severe entirely to abolish the EEG) or to post-traumatic shearing damage to the cerebral white matter, disconnecting a relatively normal cortex from deeper structures.

The diagnosis of "neocortical death" would require—I would have thought as a minimum—the demonstration of an isoelectric EEG (and without illusions that this implies "electro-cerebral silence"). But the vast majority of vegetative patients never have such EEGs³ and it is inconceivable that there are currently 10 000 individuals in the USA breathing spontaneously and persistently failing to exhibit any detectable cortical activity whatsoever in tracings recorded from their scalps. (If there are, British reservations about reliance on the EEG to diagnose the very different condition of brainstem death would seem to have been well founded.)

None of the 14 authors seem to realise that "proceeding beyond whole-brain death" (a laudable enough endeavour) does not necessarily imply moving upstream, into the relatively uncharted waters of "neocortical death". If they want to "narrow their requirements" for diagnosing death on neurological grounds, philosophers and others might gently venture in the opposite direction and seriously address the concept of brainstem death. They would discover that the irreversible destruction of the brainstem (nearly always the infratentorial repercussion of supratentorial events) is far easier to ascertain (both clinically and electro-

physiologically) than either the destruction of the "whole brain" or "neocortical death". They can be reassured, moreover, that the concept has a sound philosophical basis. The concept of brainstem death would certainly fulfil their need for "loss of personal identity". But it would go much further. Its dual emphasis on the irreversible loss of the capacity for consciousness and on the irreversible loss of the capacity to breathe spontaneously (upper and lower brainstem functions respectively) merely restate—in the secular parlance of the modern neurophysiologist—much older concepts such as the "departure of the conscious soul from the body" and the loss of the "breath of life". That the destruction of a few cubic centimetres of tissue in the floor of the aqueduct could do all that "must give us pause . . ." but seems well founded for all that.

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References

- 1 Ingvar DH, Brun A, Johansson L, Samuelsson SM. Survival after severe cerebral anoxia with destruction of the cerebral cortex. *Ann NY Acad Sci* 1978;315:184–215.
- 2 *In re Quinlan* 70 NJ 10, 355A.2d 647 (1976).
- 3 Danze F, Jud RM, Rosa A, Veys B. Etude clinique, électrophysiologique et tomodensitométrie de dix cas d'état végétatif chronique. *Aggressologie* 1986;27:933–44.

Scope of Epidemiological Psychiatry. Edited by Paul Williams, Greg Wilkinson, Kenneth Rawnsley. (Pp 536; £33.00.) London: Routledge, 1988.

This is a series of essays compiled to mark the recent retirement of Professor Michael Shepherd from the Chair of Epidemiological Psychiatry at the Institute of Psychiatry.

Professor Shepherd was in all ways an impressive colleague. My own recollections of him involve a pocket calculator produced in the middle of an appointments committee to tally up the adequacy of the candidate's experience. The candidate in question was myself and although the calculation produced a satisfactory total, this act of spontaneous arithmetic did nothing to endear the great man to me. I did not, however, forget him, and while the reasons for Professor Shepherd's impact on others was undoubtedly less churlish and more professional than my own, the effect was the same. This is evidenced by the distinguished list of colleagues who have compiled this tribute.

Epidemiology remains a cornerstone of

psychiatric study. This of course springs from necessity as much as desire, though it could be argued that this volume illustrates that while advances have been made and new ideas are many, we have still progressed but little down this road. Many of the contributions reflect Shepherd's interest in psychiatry in primary care settings. Some of the conclusions might stimulate debate, but hardly controversy. Dr Falloon's conclusion, however, that "modern" family interventions in schizophrenia result in an outcome "relatively unrestricted by major clinical episodes or substantial functional disability" is nothing short of revolutionary. Schizophrenia is no longer it seems (to paraphrase Burns) "the Hell o' a' diseases"! Professor Goldberg's chapter is on the other hand stolid and highly informative, and for those contemplating expanding still further the repertoire of psychiatric rating scales, should be mandatory reading—before they start!

In general, however, this book is neither highly controversial nor highly informative, which is probably as it should be. It is, rather, a leisurely meander through an important field of psychiatric study to which Professor Shepherd has made a distinguished and durable contribution.

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Notice

The First International Congress of Movement Disorders. 25–27 April 1990. This will be held in Washington DC, USA. Information may be obtained from: Scientific Secretariat, Dr Mark Hallett, MD, NINDS, National Institutes of Health, Building 10, Room 5N226, Bethesda, Maryland 20892, USA, or Secretariat ISMD, PO Box CH-4005, Basel, Switzerland.