

– the belief that science can explain everything and that it can even answer metaphysical questions.

We may, therefore, turn to Dr Main's substantive criticisms of my paper. He argues that the monotonous nervous system could be the basis of the infinitely varied experience we have of the perceived world because it could 'encode' complex information in the way that monotonous binary codes of the computer do. This is a variation on the 'patterns' argument that I dispose of in my paper. The electronic activity that takes place counts as a code only if one assumes that there are conscious humans who (ultimately) decode it as meaningful information and outputs. The flow of electrons in the circuitry of 'Deep Blue' counts as chess-playing moves only in a world where conscious people, including chess masters, are already in place. Codes are second-order derivatives of consciousness and cannot, therefore, explain it. Dr Main's use of the computer analogy shows that he is still in thrall to the 'language of neuromythology' which my paper also exposes<sup>3</sup>.

Only a careless reading of my paper could conclude that I was arguing that 'the ability to do two things at once...refuted any physically based theory of brain function'. My argument is much more complex; namely that our multi-agenda-ed, multi-levelled consciousness – in which vast numbers of things have both to be kept separate and brought together (in the unified moment of consciousness) and provide each other's frame of reference (what Daniel Dennett in one of his papers recognised as the unsolved 'frame problem') – cannot be captured in neural activity. While the bicycle-avoiding skills of Dr Main's cat are admirable, I doubt that the beast could take on his/her master's nephrological duties; if he/she could, I would like to meet him/her.

Dr Main criticises me for not providing my own theory of consciousness. I willingly plead guilty to honesty. Like me, he doesn't have a 'testable' theory of consciousness. My aim in my lecture was simply (to borrow John Locke's words) that of 'removing some of the rubbish that lies in the way of knowledge' and not that of producing a theory of consciousness of my own.

Like Dr Main, I am a fan of Charles Darwin. But if Dr Main had read a couple of my books<sup>3,4</sup> he would see why unquestioning faith in evolution as an explain-all may be misguided. One doesn't have to be a Bible Belt Creationist to dissent from the notion (to which Darwin would not have subscribed) that 'science in general and evolution in particular' account for the observable universe. For there is something else in that universe that they do not explain: the observer. More specifically, materialist science cannot explain why there are such things as scientists and how it is that their science is so effective.

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#### Cancer services

Editor – I was saddened but perhaps not too surprised to find that nowhere in his editorial (*JRCPL* November/December 2000, pp515–6) does Professor Malpas mention the vital role of clinical haematologists (haemato-oncologists) in the cancer care delivery system and the ever expanding role they are expected to play to make the necessary improvements in cancer care in the UK.

A substantive proportion of lymphomas and most leukaemias are cared for by clinical haematologists. The survival figures of MRC and BNLI trials are at par with any published figures across the globe. Many clinical haematologists in the UK are serving as lead cancer clinicians.

Sadly the pivotal role of clinical haematologists has often been ignored, as the editorial reflects, and it is about time for our role to be recognised and acknowledged.

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## Clinical & Scientific letters

Letters not directly related to articles published in *Clinical Medicine* and presenting unpublished original data should be submitted for publication in this section. Clinical and scientific letters should not exceed 500 words and may include one table and up to five references.

#### The nurse endoscopy scene

Editor – The new NHS plan for reform indicates that future nursing roles will include the performance of minor surgery and endoscopic procedures<sup>1</sup>. The nursing profession and the British Society of Gastroenterology have established a framework to support the growth of the nurse practitioner to include that of an endoscopist<sup>2,3</sup>. We determined the prevalence and range of procedures currently practised by nurse endoscopists in the UK, as well as the attitude of their lead endoscopy clinicians. A postal questionnaire was sent in July 2000 to all lead clinicians in endoscopy units of UK district general (DGH) and teaching hospitals (TH) with accident and emergency, general medical and general surgical services (n=292); 176 responded (60%). Fifty-five DGHs and 21 THs employed 102 nurse endoscopists with a mean 1.3 (1–3) per hospital with a further 19 (7 TH, 12 DGH) undergoing training. Forty four (43%) performed both upper gastrointestinal endoscopy (OGD) and flexible sigmoidoscopy; solitary OGD and flexible sigmoidoscopy were performed by 17(17%) and 31(30%) respectively. Three (3%) performed full colonoscopy while 7(7%) performed all three procedures. Diagnostic procedures were also performed and included injection of ulcers (4%), dilatation of strictures (3%), PEG tube insertion (2%) and polypectomy (13%). Patient acceptability was positive in 87(89%) of units. Nurse endoscopists were integral in contributing to the reduction of waiting

lists in both THs (91%) and DGHs (84%).

On questioning, lead clinicians were in favour of nurse endoscopists performing diagnostic OGD (TH=68%, DGH=80%) and flexible sigmoidoscopy (TH=79%, DGH=91%). However, they were not in favour for therapeutic OGD (TH=74%, DGH=61%), diagnostic full colonoscopy (TH=74%, DGH=52%) and therapeutic full colonoscopy (TH=84%, DGH=71%). Concerns expressed included the need for consultant cover and a lack of knowledge of possible medical complications. We were surprised by the range of diagnostic and therapeutic endoscopic procedures currently practised by nurse endoscopists in the UK.

The lack of standardisation and regulation for training nurse endoscopists for procedures other than flexible sigmoidoscopy gives cause for concern<sup>4</sup>. The implementation of current Joint Advisory Committee regulations in endoscopic training would involve lengthy apprenticeships, especially if therapeutic skills were to be developed. Nevertheless, we envisage a role for nurse endoscopy in the future provision of endoscopic services in the NHS, be it in a restrained capacity.

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#### Respiratory rate – an under-documented clinical assessment

The physiological measurements of pulse, systolic blood pressure, respiratory rate, temperature and consciousness are increasingly used both as clinical markers of the severity of condition and to highlight patients at risk of deterioration<sup>1,2</sup>.

We undertook a retrospective case note analysis of all medical patients admitted through a general medical admissions unit over a two-week period. Although most medical documentation was satisfactory, the respiratory rate was recorded in only 58% of clerkings (n=159). Even when the working diagnosis was of asthma, exacerbation of chronic obstructive pulmonary disease, pulmonary embolus, pneumonia or pulmonary oedema, the respiratory rate was not recorded in 27% of admissions. In our series, the respiratory rate was documented in only 65% of emergency medical patients with chest signs.

Tachypnoea is a sensitive but non-specific sign. It is a crucial element in the initial severity assessment of acute asthma<sup>3</sup>. A normal respiratory rate is a negative predictor for the diagnosis of pulmonary embolus<sup>4</sup>. Metabolic acidosis, the reflection of inadequate organ perfusion, renal failure or indeed poisoning, is an important cause of compensatory tachypnoea.

This study emphasises the need for detailed clinical examination and adequate written documentation of physiological measurements in all acutely ill patients for both clinical and medico-legal reasons. Some centres have found a severity marker stamp improves recording of these data<sup>5</sup>. Our unit is now evaluating the adoption of physiological screening tools to detect sick patients.

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