clinical practices which can be easily monitored and evaluated.

ALBERT KUSHLICK

Graham Unit
Lymington Day Hospitals
Hampshire SO4 9ZJ

Delusional memory in schizophrenia

SIR: Buchanan (*Journal*, October 1991, **159**, 472–474) grapples manfully with the literature on delusional memory in schizophrenia but concludes that the overall significance of the phenomenon has yet to be clarified. To a large extent, the woeful lack of consensus between authors, highlighted by Dr Buchanan, as to what exactly constitutes delusional memory, is responsible for continued uncertainty about its diagnostic usefulness. As psychiatrists we have a tendency, when approaching phenomenological murky waters, to fall back on comparisons of our patients' experiences with those of the great early descriptive writers. In some ways this is constructive and may allow us to recognise and appreciate the significance of particular signs and symptoms, but where authoritative opinions on a particular phenomenon have not coincided, we are left in an uncomfortable situation. Such is the case with delusional memory. Before we can progress further in our exploration of this symptom and its diagnostic significance, we should perhaps stop thinking in antique terms, and start again from the simplest level by describing delusional memory experiences in terms of their basic components.

From the descriptions of what has been termed 'delusional memory' reviewed by Buchanan, we would suggest that three types of delusional memory are recognised by the following easy-to-understand steps in memory falsification.

Type 1. Simple memory falsification delusional memory. This corresponds to the PSE definition of 'experiences of past events which clearly did not occur but which the subject equally clearly remembers' (Wing *et al*, 1974). No delusional interpretation has been involved in the production of these memories, they are purely memories that have been fabricated

Type 2. True memory with delusionally attributed significance delusional memory. This has the two-memberedness of a delusional perception and is illustrated by the example of Kurt Schneider's patient who recalled that his fork when he was a child had a crown on it and that this signified he was of noble birth (Schneider, 1949).

Type 3. False memory with delusionally attributed significance delusional memory. This would be as for Type 2, except that, in the example given, the child's fork if still available would be found not to have had a crown on it. The distinction between Type 2 and Type 3 is generally based on the 'believability' of the events in the memory involved and not upon a hunt for an item of childhood cutlery!

Memory falsifications are not found exclusively in schizophrenia. Patients may confabulate to cover an amnestic disorder or just be telling lies. Nostalgia in healthy individuals involves a degree of memory falsification. Reduplicative paramnesia, like delusional memory, has come to mean many things, but as originally described was specifically a falsification of memory (Pick, 1903) and may indeed be confused with examples of delusional memory.

PICK, A. (1903) Clinical studies III. On reduplicative paramnesia. *Brain*, **26**, 260–267.

Schneider, K. (1949) The concept of delusion. In *Themes and Variations in European Psychiatry* (eds S. Hirsch & M. Shepherd). Bristol: Wright.

WING, J. K., COOPER, J. E. & SARTORIUS, N. (1974) *The Measurement and Classification of Psychiatric Symptoms*. London: Cambridge University Press.

ROBERT HOWARD
ALISTAIR BURNS

Institute of Psychiatry
De Crespigny Park
London SE5 8AF

Biological basis of behaviour

SIR: Publicity in the media has recently been given to an article by Le Vay (1991) in which he showed that the size of a group of cells in the interstitial nuclei of the hypothalamus (INAH 3) was twice as large in heterosexual men as in homosexual men. The smaller size is similar to that found in women.

In 1986, Primrose showed that while only 15% (21/138) of adult males in a hospital for mental handicap had a lower than normal serum testosterone level, 73% of them (102/139) had an immature level of serum follicle stimulating hormone which is a hypothalamic-mediated pituitary hormone. In general, sexual expression in male mental handicap remains at an immature level, although testicular volume is usually of normal size. (In the series quoted, 20% or 74/377 had testes below normal size).

If such sexual behaviour patterns are biologically determined – and possibly from an early age – then this raises not only moral and legal issues for society, but also indicates the limits which can be expected from treatment of an individual, should this be considered necessary.

LE VAY, S. (1991) A difference in hypothalamic structure between heterosexual and homosexual men. *Science*, **253**, 1034–1037.