the part, if any, played by the specific features of the therapeutic community proper, as defined by themselves, in the outcome.

It would be a pity if their results were misconstrued to suggest that improvements in such 'traditional' wards are contingent on full acceptance and implementation of controversial concepts, rather than on the application of basic principles of psychiatric care which are universally accepted, in theory if not always in practice.

DAVID ABRAHAMSON.

Goodmayes Hospital,
Barley Lane,
Ilford, Essex.

CLUSTER ANALYSIS

DEAR SIR,

B. S. Everitt's excellent article on cluster analysis (*Journal*, February 1972, p. 143) provides a much needed warning of the difficulties involved in the use of this technique. One way, however, of avoiding at least some of the pitfalls of this method needs to be stressed. This is the application of what is perhaps the universal panacea for scientific flights of fancy, namely, common sense. Common sense is particularly applicable to the choice of variables to be measured, and, of course, to the problem of naming the groups once they have been found. The use of mathematical techniques without the concurrent application of common sense is one of the greatest traps for the unwary and the overenthusiastic.

CLIVE A. SIMS.

The Institute of Family Psychiatry,
Ipswich and East Suffolk Hospital,
23 Henley Road,
Ipswich, Suffolk.

DO MENTAL EVENTS EXIST?

DEAR SIR,

One need not be a 'mentalist' to be put into a critical frame of mind (a mental event?) by Dr. Ray's oversimplifications (*Journal*, February 1972, pp. 129–132). Did it ever occur to him that by the very writing of his article he has given evidence contradictory to himself, and if he ever amends one or another sentence (as most writers do), what biochemical or electrophysiological or, briefly, neuronal impulse makes him do so? Unless one is the purest empiricist 'knowing' only the input of sense data objectifiable by instruments, there is no *a priori* difficulty in 'categorizing' (as categories are made by us and not vice versa) mental life processes alongside with and of equal 'dignity' (whether further reducible or not) as biochemical or electrophysiological processes. Let us have the most intricate electrophysiological research and progress, by all means, but can it ultimately shed light on what inner conflict, jealousy, remorse, envy etc. are? Do we 'live' or are we, like lower organisms, 'being lived' by the particles of our 'machinery' (responding to stimulation)? If a person is observed sitting on a chair—chin in hand and forehead furrowed—and he keeps silent, what behaviouristic principle or instrument is able to decide whether he has just pondered about a domestic problem or a religious scruple or just a debt? If mental events do *not* exist, we can scrap all the beautiful works of classical world literature and bequeath to future generations just Dr. Ray's theorem—unpolluted by psychologism.

STEPHEN KRAUSS.

64 Oak Tree Road,
Reading, RG3 6JY.

DEAR SIR,

May I publicly applaud J. J. Ray for his paper? This was a truly brilliant satire on the Victorian, but still popular, habit of trying to physiologize psychology, and the *Journal* is to be congratulated on publishing a paper which, while very humorous in form, was very serious in intent.

D. BANNISTER.

Bexley Hospital,
Kent.

PSYCHIATRIC IN-PATIENTS AND OUT-PATIENTS

DEAR SIR,

The reply of Morgan and Compton in this issue of the *Journal* (pp. 433–6), is based on a misunderstanding of our results and of the problem investigated. This leads them into a refutation of 'claims' never made and they buttress it with a statistical exercise of great naivety. Our findings were:

(a) '. . . in certain important respects in-patients and out-patients are derived from different though overlapping populations.' The most marked differences (dismissed by Morgan and Compton as 'slight') were found among the elderly. 'The admission rate for the over 65s of both sexes was 4·90 per 1,000. In contrast, increasing age was associated with a gradual fall of out-patient referral rate to 1·60 for the over 65s.' We did not claim to have demonstrated the cause of these differences, but mentioned possible reasons for them.

(b) In a district general hospital-centred psychiatric service we observed a 34 per cent increase of new out-patient referrals while hospital admissions

remained static; this occurred over a period of three years, when nationally hospital admissions were still rising. We quoted in illustration some extreme figures from official statistics and the figures for the Sheffield and the Liverpool regions were extreme whether one refers to Tables 3, 11 or 13 (1). This prompted the hypothesis that an increase in new out-patient referrals can prevent admission or prove an alternative to it. No 'claim' was made, and we advisedly used the term 'suggestion' to emphasize that these are 'no more than tentative and incomplete incursions into this difficult and relatively unexplored field' (2).

Out-patient care was investigated because '. . . relatively little is known about the patients so treated either descriptively or in terms of the care they receive. Nor is it known with any certainty how ambulatory treatment fits into the overall pattern of the psychiatric care of the individual' (3). This poverty of information is partly due to the difficulty in collecting reliable out-patient statistics and officially published figures are at best a rough guide. To quote Baldwin (2) '. . . the methods of collection are almost always disparate, idiosyncratic and of doubtful consistency' and '. . . the methods of data handling are . . . almost wholly dependent on clerical manipulation and so subject to unduly large human error'. In particular, the definition of a new out-patient varies from hospital to hospital. Forsyth and Logan (4) found that a patient who attended for follow-up immediately after discharge from hospital was counted as a new out-patient in about one-half of hospitals and as a repeat attendance in the rest. Similarly, some hospitals restrict the term 'new out-patient' to the first-ever attendance, while others apply it to the first of any new episode of out-patient care. The hospital returns sometimes show the number of patients booked and not the number of actual attendances. In-patient statistics are less subject to these vagaries and here the commonest source of error is probably 'double-counting', i.e. a patient transferred from one hospital to another will appear in each hospital's return and be counted twice (4). It is obvious that these figures are not suitable for statistical treatment such as used by Morgan and Compton: product-moment correlations and significance tests cannot be more reliable than the data from which they are derived. All that can be said is that official statistics reflect trends which should be investigated by collecting data in a given area and according to operationally defined criteria that are strictly adhered to. This we have done, reported our findings and discussed some possible explanations for them. They are confirmed by the findings of the Aberdeen psychiatric case register (2): '. . . the increase in extra-mural initial consultation was accompanied by a reduction in demand for in-patient care. It may be surmised that the one was the cause of the other' and 'hospitalization rates varied inversely with the amount of extramural service offered by the unit to which the patient was referred'. The problem remains complex and our results lead to further questions some of which we propose to explore. It is clear that availability of out-patient facilities does not automatically guarantee substitution of care, as public (including medical) expectations and practice do not change immediately (5).

If we understand them correctly, Morgan and Compton do not criticize our findings; they even list additional reasons to explain why in-patients and out-patients are to a large extent derived from different populations. They also accept that out-patient treatment can prevent admission or prove an alternative to it. However, they make a plea for more sophisticated methods 'to differentiate between the overlapping populations of hospital in- and out-patients'. The need for improved methods is only too obvious though 'sophistication' is becoming an overworked term, too often applied to soft data. We agree with Baldwin (2) that '. . . it is possible to discriminate between high and low in-patient demand characteristics in a number of ways using relatively simple data, and to distinguish patterns of care and trends which are of considerable value for the management and planning of services'.

In the absence of Dr. Evans, now in New Zealand, I am signing this letter.

A. G. Mezey.

Department of Psychological Medicine,
North Middlesex Hospital,
Silver Street,
Edmonton, London N18 1QX.

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NEUROPSYCHIATRIC TRAINING

Dear Sir,

In September 1970, Sir Charles Symonds delivered the sixth Sir Hugh Cairns' Memorial Lecture to the