admitted to a psychiatric hospital than the general population'. He bases this on the simple ratio of number of admissions to size of population, comparing Jehovah's Witnesses to the general population.

While interesting, the findings are questionable. Numerous other factors, not controlled for, could influence the results obtained. For example, one must consider whether Jehovah's Witnesses tend to live primarily in urban areas or have different age and socio-economic status demographic characteristics from the general population; any of these could affect the results of this study.

It is particularly important that research of social consequence should be carefully carried out. Experimenter-bias errors may serve the maintenance of social stereotypes. The tone of the article in this regard is a bit distressing: whether the founder of the Jehovah's Witnesses sect 'proved to be a man of doubtful integrity' is clearly a hypothesis that should be supported if proffered. For me, it served as a warning to scrutinize the methodology and results carefully.

MEYER A. ROTHBERG.

Department of Psychiatry, College of Medicine and Dentistry of New Jersey, Rutgers Medical School, Piscataway, N.7. 08854.

BROMIDE INTOXICATION

DEAR SIR.

Bromides were for many years used extensively as anticonvulsants and anxiolytics. Today they are rarely used. Bromide intoxication may lead to ataxia, dysarthria and nystagmus (Morgan and Weaver, 1969) and an acneiform skin rash; there may be irritability and emotional lability, a confusional state, and hallucinations (Levin, 1960). Granville-Grossman (1971) has well summarized the literature.

Recently a 49-year-old married woman was brought to this hospital as an emergency admission. For two weeks she had been giddy and for three days she had been in bed; her speech was indistinct, and she had difficulty holding cups and had been incontinent on one occasion. She was found to be disorientated for time and place, and for several days she was ataxic, dysarthric and dysphasic, with impaired attention and concentration. She had an acneiform rash on her back. At one period she was visually hallucinated. Her serum bromide level on admission was estimated and was found to be 528 mg per 100 ml. Urinary tests for barbiturate and amphetamine were negative.

During World War II she had become panicky and had read a book which recommended a mixture,

containing 10 g bromide per 200 ml, as a 'nerve tonic'. Her general practitioner had prescribed this for her, and she had taken it twice a day for over twenty years. There was no family or personal history of mental illness. Her mixture was discontinued and she was encouraged to drink a lot of water. Her serum bromide slowly fell and she was discharged after two months. No reason was found for the onset of her bromide intoxication to have occurred at this particular time.

ALEC ROY.

The Maudsley Hospital, Denmark Hill, London, SE₅ 8AZ.

REFERENCES

Granville-Grossman, K. (1971) Bromides in symptomatic mental disorders. Chapter 7 of Recent Advances in Clinical Psychiatry, pp. 205-9. London: J. & A. Churchill.

LEVIN, M. (1960) Bromide hallucinosis. Archives of General Psychiatry. 2, 429-33.

Psychiatry, 2, 429-33.

MORGAN, J. & WEAVER, E. (1969) Chronic bromism simulating neurological diseases. Virginia Medical Monthly, 96, 262-4.

SPEECH IN SCHIZOPHRENIC PATIENTS

DEAR SIR,

We would like to make a few comments concerning the paper by Rutter, Wishner and Callaghan (Journal, June 1975, 126, 571). Their findings were at odds with those of Silverman (1972) in that they found higher Cloze scores for normal subjects rating texts mutilated at every fourth word compared with every fifth word. But their study was in no way a replication of Silverman's. In their experiment the total number of speech transcripts amounted to only four, each of 200 words; but in Silverman's study (1972) there were, in all, fourteen 200-word speech transcripts. With the very small number of samples used by Rutter et al. it is quite likely that their finding was due to chance. In fact their study was really the reverse of Silverman's in that they were testing the raters rather than the speakers.

A careful examination shows that their findings actually support many of those in Silverman's study in that:

- (a) they found consistently lower Cloze scores for the 4th deletion pattern rather than the 5th with their two schizophrenic texts, both with schizophrenic and with normal raters.
- (b) the gain in predictability from 4th to 5th deletion patterns was considerable for schizophrenic speech as against normal speech (as in Silverman's study, the interaction between texts and deletion pattern was very highly significant).

(c) for schizophrenic subjects the 4th deletion pattern was far more sensitive that the traditional 5th word pattern, which was a major finding of Silverman's study.

We agree, however, that much more work is required in examining the effect which the speech recording situation has upon the results of Cloze procedure. We would like to quote a finding from work in progress. Using 200-word speech transcripts with 5th deletion from 10 normal subjects of very different educational backgrounds, verbal IQ and personality, recorded in a standardized form for monologues on three different topics per speaker (Own Choice, Religion, Women's Rights), we found no significant difference in Cloze scores due to topic, and virtually none due to speakers. There was however, a very significant difference among the six raters who have so far completed the task.

Gerald Silverman. Vera Marcus.

St. Bernard's Hospital, Southall, Middlesex, UB1 3EU.

REFERENCES

RUTTER, D. R., WISHNER, J. & CALLAGHAN, B. A. (1975)
 British Journal of Psychiatry, 126, 571-6.
 SILVERMAN, G. (1972) Psycholinguistics of schizophrenic language. Psychological Medicine, 2, 254-9.

UNILATERAL ECT

DEAR SIR,

We welcome the study by Clyma (Journal, April 1975, 126, 372-9) on unilateral ECT and the assessment of language laterality. d'Elia and Raotma (1975) have reviewed published work which on balance considers unilateral ECT to be as effective therapeutically as bilateral, while sparing memory (Halliday et al., 1968). Memory is also spared by reducing the dose of electricity (Ottosson, 1960).

Clyma experienced occasional difficulty in establishing language laterality and attributed this in part to the larger amount of electricity delivered by the Ectron machine used in her study than that delivered by the Strauss-Macphail A.C. Transpsycon used in a previous valid study (Pratt and Warrington, 1972).

There appear, therefore, to be three factors tending to spare memory: the use of unilateral non-dominant ECT; the correct assessment of language laterality (when unilateral ECT is given); and the employment of the minimum dose of electricity required to produce a grand mal (best achieved by using a machine such as the A.C. Transpsycon

administering a small and measured dose). The last of these applies even if bilateral ECT is being used. We believe that because of the neglect of these considerations many patients at the present time are being needlessly subjected to excessive memory impairment from ECT.

A. M. HALLIDAY. H. MERSKEY. R. T. C. PRATT. ELIZABETH K. WARRINGTON.

National Hospitals for Nervous Diseases, Queen Square, London, WC1N 3BG.

REFERENCES

CLYMA, E. A. (1975) Unilateral electroconvulsive therapy: how to determine which hemisphere is dominant. British Journal of Psychiatry, 126, 372-9.

D'ELIA, G. & RAOTMA, H. (1975) Is unilateral ECT less effective than bilateral ECT? British Journal of Psychiatry, 126, 83-9.

HALLIDAY, A. M., DAVISON, K., BROWNE, M. W. & KREEGER, L. C. (1968) A comparison of the effects on depression and memory of bilateral ECT and unilateral ECT to the dominant and non-dominant hemispheres. British Journal of Psychiatry, 114, 997-1012.

Ottosson, J.-O. (1960) Experimental studies of the mode of action of electroconvulsive therapy. *Acta Psychiatrica et Neurologica Scandinavica*, Suppl. 145, 1-141.

Pratt, R. T. C. & Warrington, E. K. (1972) The assessment of cerebral dominance with unilateral ECT. British Journal of Psychiatry, 121, 327-8.

BURDEN RESEARCH MEDAL AND PRIZE

DEAR SIR,

May we remind your readers that entry for the Burden Research Medal and Prize is open to all registered medical practitioners who are working in the field of mental subnormality in the United Kingdom or Republic of Ireland.

The award for 1976, total value £250, may be presented at Stoke Park Hospital on or about 1 April 1976 for outstanding research work which has been published, accepted for publication or presented as a paper to a learned society during the three-year period ending 31 December 1975.

Five copies of the paper or papers, with application form, should be submitted to the Secretary of the Burden Trust by 10 January 1976.

Further information and application forms are available from the Secretary, Burden Trust, 16 Orchard Street, Bristol, BS1 5EA.

W. A. HEATON-WARD.