for the experienced psychiatric clinician is the informed, rational use of any test that is ordered.

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Dyskinesia in the mentally handicapped

SIR: It was very interesting to read the well designed study of a well defined population by Dinan & Golden (*Journal*, July 1990, **157**, 131–132).

We have undertaken the screening of the whole mentally handicapped population at Cell Barnes Hospital (n = 550) for dyskinesia. After an extensive trial period we decided to use the Dyskinesia Identification System Condensed User Scale (DISCUS) instead of the Abnormal Involuntary Movement Scale (AIMS) because of the former's superiority in identifying facial tics and grimaces, and in having separate items for the tongue movements, tongue thrust, tongue tremor and athetoid/myokymic/lateral tongue (Sprague *et al*, 1989). Also, DISCUS is a standardised and validated scale for mentally handicapped people who offer little or no co-operation.

In our pilot study, the prevalence of orofacial dyskinesia in the institutionalised mentally handicapped population was 77%, in accordance with Dinan & Golden's results. Richardson *et al* (1986) found that their group of mentally handicapped people with tardive dyskinesia was characterised by a 92% rate of buccolingual masticatory movements.

We believe that large multicentre trials on mentally handicapped people with various psychiatric and drug histories, comparisons of various dyskinesia scores, and observations of affective changes in relation to dyskinesia should be the next step forward in the attempt to elucidate the pathophysiology of dyskinesia.

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Linguistics of schizophrenia

SIR: Thomas *et al* (*Journal*, February 1990, **156**, 204–210) used methods of linguistic analysis to examine the free speech of schizophrenics and others, finding that three of the 16 descriptive variables which discriminated between clinical groups were directly concerned with 'embedding'. In an experimental study designed to investigate the psychological processes involved in the comprehension of sentences, Huff and I systematically varied 'degree of embedding' to generate 12 sentence-types with varying degrees of difficulty (Thomas & Huff, 1971).

Each sentence specified the rooms occupied by four people (Doctor, Grocer, Lawyer, Teacher) in a house containing six numbered rooms, two on each floor. While a sentence was displayed, the subject had to put dummy 'people' into an up-ended box with six compartments so as to depict its meaning. The time taken by the subject to "do his best" (T) and the number of 'people' correctly placed (C) were averaged for each sentence-type, for two groups of subjects separately and combined. The subjects were eight young adults with acute schizophrenic or schizophrenia-like illnesses and eight normal young adult controls.

High negative correlations (-0.85 to -0.95, $P < 0.001$) were consistently found between C and T. This relationship was linear and essentially the same for patients and controls. The rank-order of difficulty for the sentence-types, with either C or T as criterion, was similar for the two groups. Evidently a single aspect of sentence structure was causing most of the difficulty, in broadly similar ways for patients and normals, although the patients performed much worse than the normals.

As the effect of 'embedding' is to make a sentence more parenthetical, we next assumed that different sentence structures imposed different amounts of 'parenthetical load' (PL) on the subject by making greater or smaller demands on the decoding processes required to extract their meaning; and secondly, that patients were more vulnerable to PL than normals. Various assumptions could be made as to the nature of the decoding processes, and each combination of assumptions (each 'model') dictated its own procedure for calculating the PL of any given sentence. It was consistently found that C correlated negatively and T positively with PL; but one model was significantly 'better' than the rest, i.e. it gave