

HAND AND EYE DOMINANCE IN  
SCHIZOPHRENIA

DEAR SIR,

Oddy and Lobstein (*Journal*, March 1972, 120, 331) apparently assume that in a normal population hand and eye dominance are related, whereas it has been shown that they are not (e.g. Merrell, 1957; White, 1969; Gronwall and Sampson, 1971). Under normal viewing conditions, both eyes project to both cerebral hemispheres simultaneously, and which eye is dominant is determined not by cerebral but by ocular factors, such as (but not exclusively) visual acuity.

Oddy and Lobstein do not state if any steps were taken to determine whether the eyes of their subjects were equally good. In my studies, 180 patients and 76 members of staff from two hospitals completed a questionnaire about handedness and eye dominance (Annett, 1970). All were asked if their eyes were equally 'good' or if one was weaker than the other; 93 (51.7 per cent) of the patients and 39 (51.3 per cent) of the staff replied that one eye was weaker. The 'weaker' eye was the same one as the non-dominant eye in 81 patients (87.1 per cent of the group with unequal eyes) and 39 staff (76.9 per cent). These data demonstrate that differences in acuity cannot safely be ignored.

Merrell (1959) determined the handedness of his subjects, using only four criteria; Oddy and Lobstein use eleven separate actions, and any subject who used his non-preferred hand for any one of these actions was classed as mixed-handed. The two groups being compared are therefore not equivalent with respect to their handedness patterns. In fact, Oddy and Lobstein's two groups of patients have a binomial distribution of handedness patterns (Annett, 1967), whereas Merrell's group's preferences are significantly different from the binomial distribution ( $\chi^2 = 18.41$ , d.f. = 2,  $p < 0.001$ ).

Of the 76 staff members who completed Annett's questionnaire, 12 did not use the same hand for all actions, so were classed as mixed-handers. When only Merrell's four criteria were considered, 6 of these subjects were reclassified as right-handed and one as left-handed, with only five mixed-handers remaining.

Furthermore, it appears from Table I of Oddy and Lobstein that there were not sufficient numbers of subjects in enough of the cells to make chi-square a legitimate measure of significance.

There is clinical and circumstantial evidence for the hypothesis that laterality is disturbed in schizophrenia, but proof of this can be obtained only from studies of factors which correlate highly with cerebral

dominance, which ocular dominance does not.

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REFERENCES

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GRONWALL, D. M., and SAMPSON, H. (1971). 'Ocular dominance: a test of two hypotheses.' *Brit. J. Psychol.*, 62, 175-85.  
MERRELL, D. J. (1957). 'Dominance in eye and hand.' *Human Biology*, 29, 314-28.  
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ORGANIC OR PSYCHOGENIC STUPOR

DEAR SIR,

I refer to the letter by Dr. J. P. Crawford in the May 1972 *Journal* (120, p. 592).

I agree with his emphasis on the fact that akinetic mutism may be of organic origin and on the possible relationship with the brain-stem reticular formation. This relationship was borne out by a case which I reported in some detail (1) in which persistent, intractable and deepening organic stupor following a severe head injury responded to a course of ECT and this response was consistently maintained during a period of follow-up covering 5½ years.

MAURICE SILVERMAN.

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REFERENCE

1. SILVERMAN, M. (1964). 'Organic stupor subsequent to a severe head injury treated with ECT.' *Brit. J. Psychiat.*, 110, 648.

KLINEFELTER'S SYNDROME, 47,XXY

DEAR SIR,

I should like to inform Dr. Jacob Kahn that his objection to the monograph *A Psychological-Psychiatric Study of Patients with Klinefelter's Syndrome* by A. Theilgaard *et al.* (reviewed by him in the July 1972 issue, p. 110) regarding the 'doubtful value of