References

CHAPPLE, J. C., DALE, R. & EVANS, B. G. (1987) The new genetics: will it pay its way? *The Lancet, i,* 1189–1192.

MILUNSKY, A. (1986) Genetic counselling. Prelude to prenatal diagnosis. In *Genetic disorders and the fetus. Diagnosis, prevention and treatment* (ed. A. Milunsky), New York and London: Plenum Press.

SHAW, M. W. (1986) Medicolegal aspects of prenatal diagnosis. In *Genetic disorders and the fetus. Diagnosis, prevention and treatment* (ed. A. Milunsky), New York and London: Plenum Press.

WALLACE, A. (1986) Cracking the mind's secrets. *Times,* Jan 20, 11.

Psychophysiology and Expressed Emotion

SIR: I was most interested to read the study by Tarrier *et al* (*Journal*, May 1988, **152,** 618–624) on expressed emotion and psychophysiological responses, but am uncertain about the interpretation. Skin conductance can vary greatly with the clinical picture (Gruzelier, 1976) and also is altered by medication (Yannitsi *et al,* 1987). Neither of these factors were controlled for. In addition, Tarrier has already demonstrated an interaction between life events, the presence of a high expressed emotion relative, and skin conductance (Tarrier *et al,* 1979), but does not examine the interaction in this paper. Furthermore, altered skin conductance is associated with a poorer prognosis (Frith *et al,* 1979), as is a long past psychiatric history. However, neither the duration of past illness nor the number of past admissions was examined.

Overall it would be counterintuitive to expect that high expressed emotion does not have an impact on arousal. This paper certainly supports such a link, although the number of uncontrolled factors in the study means that this is not the only interpretation possible.

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References

FRITH, C. D., STEVENS, M., JOHNSTONE, E. C. & CROW, T. J. (1979) Skin conductance responsivity during acute episodes of schizophrenia as a predictor of symptomatic improvement. *Psychological Medicine,* **9,** 101–106.

GRUZELIER, J. (1976) Clinical attributes of schizophrenic skin conductance responders and non-responders. *Psychological Medicine,* **6,** 245–249.

TARRIER, N., VAUGHN, C. E., LADER, M. H. & LEFF, J. P. (1979) Bodily reactions to people and events in schizophrenics. *Archives of General Psychiatry,* **36,** 311–315.

YANNITSI, S., LIAKOS, A. & PAPAKOSTAS, Y. (1987) Electrodermal responding and chlorpromazine treatment in schizophrenia. *British Journal of Psychiatry,* **150,** 850–853.

SIR: The point Dr Cramer makes is reasonable; however, it does need to be put in context. We employed a within-subject design in which patients were tested with their relative being absent and then present. Hence, in the majority of our analyses patient factors were held constant and the presence of the relative was varied. Between-subject factors, which Dr Cramer cites as being important, are therefore greatly reduced in influence.

Dr Cramer cites a study by Yannitsi *et al* (1987) to demonstrate the importance of medication on electrodermal measures. This study compared patients while they were drug-free and while they received medication, and hence is not relevant here. Our patients were all receiving the optimal dosage of neuroleptics prescribed by the clinical team responsible for their care. This was clearly stated in the paper.

We did not record life events occurring prior to admission. However, data given by Leff & Vaughn (1980) would lead us to predict that patients with low-EE relatives would be more likely to experience a life event prior to relapse than those with high-EE relatives. Life events, therefore, might be expected to enhance the arousal levels of patients with low-EE relatives rather than explain the results we found.

The possibility that electrodermal measures are indicators of prognosis or vulnerability markers is a much more intriguing question. We have examined this problem in a longitudinal case study (Tarrier & Barrowclough, 1987), and we are presently looking at electrodermal vulnerability and episode markers in relation to our two-year follow-up data.

Although we are in full agreement with Dr Cramer that the factors he cites can be important influences on electrodermal measures, they are unlikely to explain the results that we presented.

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References

LEFF, J. & VAUGHN, C. (1980) The interaction of life events and relatives' expressed emotion in schizophrenia and depressive neurosis. *British Journal of Psychiatry,* **136,** 146–153.

TARRIER, N. & BARROWCLOUGH, C. (1987) A longitudinal psychophysiological assessment of a schizophrenic patient in relation to the expressed emotion of his relatives. *Behavioural Psychotherapy,* **15,** 45–57.

YANNITSI, S., LIAKOS, A. & PAPAKOSTAS, Y. (1987) Electrodermal responding and chlorpromazine treatment in schizophrenia. *British Journal of Psychiatry,* **150,** 850–853.