psychoses. Kiloh *et al* (1972) made a similar suggestion.

The distribution of the dimension discriminating between psychotic and neurotic depressions is a mixture of distributions along two, roughly orthogonal, separate, axes (Kendell, 1968a, p. 39; Kiloh *et al*, 1972, p. 189 and Matussek *et al*, 1981, p. 369): a psychotic (bimodal) one and a neurotic (unimodal) one. It is therefore not surprising that there is little agreement regarding the shape of the discriminating distribution (Garside and Roth, 1978, p. 62). Depression consists of two independent conditions that are not mutually exclusive.

To sum up: there is fairly general agreement, as Kendell (1976, p. 25) pointed out, (a) that there are two kinds of depression and (b) that there is a distinct group of patients suffering from the disease entity of psychotic depression. But there is no general agreement as to the distribution of neurotic depression; it is probably best regarded as continuous rather than bimodal, at least until shown to be otherwise.

It seems, therefore, that the attempt to arrive at a differential diagnosis in relation to depressed patients in inappropriate. Two separate questions should be asked, not one: first, is the patient suffering from psychotic depression or is he not and, second, to what extent is he suffering from neurotic depression.

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POST INFLUENZAL-DEPRESSION

DEAR SIR,

Sinanan and Hillary (*Journal*, February 1981, **138**, 131–3) state that there is no convincing evidence for the existence of post-influenzal depression. A good deal hinges on how the word 'convincing' should be interpreted, although I agree that no epidemiological study, so far, has demonstrated an association between influenza and depression.

On the other hand, I doubt whether their paper has proved that such an association does not exist. What they have shown is a lack of correlation between a rating scale for depression and levels of influenza antibodies in a group of patients suffering from a variety of psychiatric disorders. Such a conclusion does not invalidate the observation, based upon clinical experience, that "intractable depression may sometimes follow attacks of influenza". As such patients in all probability would be suffering from severe endogenous rather than neurotic or mixed depression, taking all these categories together might have obscured the presence of some patients in their series whose endogenous depression followed an attack of influenza. Unfortunately we are not given sufficient information about the actual antibody titres and it is impossible to deduce these from the mean rank figures given in Table I. With respect to the second Table, it is unclear from the text whether the figures apply only to depressed patients or to the whole group, including those with other diagnoses.

Incidently, it seems odd to class patients with secondary depression among the 'non-depressed' as there is no reason for assuming in advance that their depression was wholly attributable to conditions such as alcoholism and physical illness.

The absence of any significant difference in titres between depressed and non-depressed patients is not surprising as, presumably, during an epidemic both groups would have been exposed to contact with the virus. In some patients with already acquired immunity one might anticipate that, although they would not develop clinical influenza, their antibody titres would be higher in response to viral stimulation from subclinical infections. Similar considerations could explain the higher titres of patients who claimed not to have suffered from influenza. They could still have been exposed to the risk of infection. Unfortunately it is impossible to test whole populations for influenza antibodies in order to see if changes occur should some of them become depressed after suffering an attack of the illness. As this investigation was retrospective, the levels of antibody titres in these patients would not be known before they became psychiatrically ill. Furthermore, we do not know what effects severe depression might have on patients' immunological defences, but such an influence cannot be ignored in a study of this kind.

Psychiatric textbooks, basing their observations, one hopes, on clinical experience, claim that on occasions influenza can apparently cause or precipitate severe depression. This is not a new observation as Tuke (*Dictionary of Psychological Medicine*, 1892), writing on mental disorders following influenza, commented "In no other allied disease is the nervous system attacked to so high a degree". On melancholia following influenza he wrote "Every degree of depression may occur" and went on to provide details of mania and depression affecting 18 patients admitted to Bethlem Hospital.

Although it would be valuable to have a firm epidemiological basis for one's clinical diagnoses, it has to be said that with respect to influenza and depression this evidence is simply not available at present. Considering the complexity of the problem and the many uncontrollable variables involved, I doubt whether it will ever be forthcoming.

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CARROLL RATING SCALE FOR DEPRESSION

DEAR SIR,

We were most interested to read Professor Carroll's description of his new self-rating scale for depression (*Journal*, March 1981, **138**, 194–200). Professor Lader has recently noted the limitations of self-rating scales in assessing depressive states (Lader, 1981). Professor Carroll describes his scale as a "self-rating instrument for depression closely matching the information content and specific items of the Hamilton Rating Scale".

We feel that the CRS has many of the faults of the HRS with few of its merits. We give three brief examples:

(1) 'It must be obvious that I am disturbed and agitated'. There are clear conceptual difficulties in assessing one's own degree of agitation or disturbance, or indeed whether one is disturbed or agitated at all.

(2) 'I got sick because of the bad weather we have been having'. One wonders what this question was designed to elicit. We have never encountered a depressive delusion of this nature and an accurate self-rating test for insight is almost impossible.

(3) 'I am so slowed down that I need help with bathing and dressing'. In our experience any patient with this degree of retardation would be unable to fill in the questionnaire. Professor Hamilton (1960, 1967) has himself said that questions designed to elicit retardation may frequently give rise to misleading answers. In addition the 'yes/no' format must give rise to a lack of sensitivity in analysis.

We appreciate the difficulties and effort involved in drawing up a sensitive self-rating scale for depression, but we are nevertheless of the opinion that the CRS is a somewhat superfluous instrument in an area where the existing scales, for all their faults, have been thoroughly validated.

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RISK FACTORS AND DEPRESSION

DEAR SIR,

Cooke's letter (*Journal*, February, **138**, 183)