(p. 410) and written down (protocol of contract p. 414). However, although in the illustrative cases the author meets some of his own criteria for written treatment contracts, in neither case are there clear statements of the goals of treatment. It is necessary that the proposer of a procedure should at least demonstrate that he himself has been able to follow *all* the steps in the procedure. For such illustrations the reader is referred to cases described in Schwartz and Goldiamond (1975).

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Reference

SCHWARTZ, A. & GOLDIAMOND, I. (1975) *Social Casework: A Behavioural Approach.* New York and London: Columbia University Press.

BRAIN DAMAGE WITH LITHIUM/HALOPERIDOL

DEAR SIR,

The possibility of a combination of lithium and haloperidol causing brain damage was first suggested by Cohen and Cohen (1), who reported 4 patients with severe extrapyramidal signs and gross confusional states. A further 7 cases were reported by Loudon and Waring (2) with a similar syndrome. In all of these cases the organic syndrome occurred shortly after the combination of lithium and haloperidol was used for the first time.

I would like to report a further case of brain damage which differs in that the patient had experienced previous exposure to a lithium and haloperidol combination.

A 58-year-old woman with a ten year history of manic-depressive psychosis was started on prophylactic lithium seven years ago. This had always been maintained since that time within the normal therapeutic range. Three years ago, during a manic episode, she was treated with haloperidol 5 mgms q.d.s. for three weeks whilst still receiving lithium, and suffered no adverse effects. In July of last year she was again treated with haloperidol 1.5 mgms t.d.s. for a hypomanic swing. Within two days of starting the combination she developed gross extrapyramidal symptoms with marked rigidity, which made walking unaided impossible, and continual oro-facial dyskinesia. Associated with this was a severe confusional state with total disorientation. During this period all laboratory investigations, including lumbar puncture, gave normal results. An EEG during the episode revealed diffuse slow waves. Both drugs were stopped when the symptoms occurred, and over the following three months the patient has gradually lost all the severe extrapyramidal signs. Unfortunately, however, there is still evidence of severe organic brain damage with considerable disorientation and impairment of memory.

I believe that the course of this patient's illness was due to the haloperidol-lithium combination, as it came on so rapidly after the drugs had been started and so closely resembled the previously reported cases. The only difference was that the patient reported here had experienced the combination previously without developing this syndrome. The possible adverse effect of long-term lithium on psychological memory testing, but without obvious clinical impairment, has been reported (*Journal*, **131,** 453–7) and it is therefore possible that in some patients the addition of haloperidol may result in a subclinical organic impairment being made clinical.

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References

(1) COHEN, W. & COHEN, N. (1974) *Journal of the American Medical Association*, **230,** No. 9, 1283.
(2) LOUDON, J. & WARING, H. (1976) *Lancet, ii,* 1088.

CORRECTION

In the paper *Vulnerability Factors and Depression in Women* by Alec Roy (*Journal*, **133,** 106–10) page 108, column 2, line 5 should read 46.4 per cent and not 41.7 per cent; page 109, column 2, line 22 should read 26.1 per cent and not 13 per cent, line 25 should read 11.9 per cent and not 5.9 per cent, and line 27 should read 39.2 per cent and not 29.7 per cent.