Although words and ideas are mutually dependent, our primary aim is to advocate not so much a new concept as a change in terminology. We are proposing that those patients currently labelled as 'attempted suicides' should receive a less confusing designation. Conundrums on points of theory, however important and intriguing, can afford to wait; clinical needs cannot.

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EFFECTS OF LITHIUM ON PLASMA MAGNESIUM

Dear Sir,

The recent work of Frizel *et al.* (*Journal*, December 1969, p. 1375) on plasma levels of magnesium and calcium in depression contains some very interesting results which are worthy of some further consideration. Calculation from the published data of the 'non-ionized' fraction of the metals indicates that there is a trend for the mean 'non-ionized' calcium to be higher in the depressed state than in the normal, recovered or lithium treated states. There is also a converse trend for the 'non-ionized' magnesium to be lower in depression than in normal or recovered states. However, after lithium treatment the 'non-ionized' magnesium is decreased by about 50 per cent. This suggests that lithium medication and spontaneous recovery result in opposite changes in 'non-ionized' plasma magnesium.

Some current theories on the mode of action of lithium assume an interaction with sodium. From a chemical point of view, lithium can also be considered to be very closely related to magnesium and calcium, owing to the so called 'Diagonal Relationship'. Lithium is in the typically anomalous position of a first row element in the periodic table. In this position group relationships are weaker, and diagonal affinities with the next group are relatively stronger. This effect is shown in both chemical and physical properties. From the chemical standpoint it could therefore be postulated that the normothymotic effect of lithium (Schou, 1968) is due to an interference with the metabolism or binding of magnesium. The logical corollary is that defects in magnesium metabolism could be involved in the pathophysiology of the manic-depressive syndrome. The central role of magnesium in energy-producing enzyme reactions, such as ATP-ATPase interactions, could indicate that this defect might be of a fundamental nature leading to the changes in other parameters already clearly documented.

From the view point of these hypotheses it is interesting to deduce the possible reason for the reduction in the 'non-ionized' fraction of plasma magnesium after lithium treatment. Since magnesium is involved in the structural stabilization of proteins, (Wacker, 1969), it is possible that lithium, with its similar crystal ionic radius and polarizing power, could insinuate itself into the same or similar sites in the structure. In this case, the non-ionized magnesium fraction will decrease and the plasma ionized magnesium fraction will increase due to released Mg^{2+} ions The free excess ions would be removed by the homeostatic mechanisms controlling plasma ionized magnesium, and would either be excreted or transferred to intracellular or bone compartments.

In this laboratory we are undertaking experiments to determine the effects of lithium on the distribution and metabolic balance of other ions. Preliminary results indicate that during lithium treatment of rats the daily urinary excretion of magnesium rises, but returns to about normal levels on cessation of lithium administration. This finding has been confirmed by Gotfredsen *et al.* (1969).

If in fact lithium can be shown to compete with magnesium at sites in some phase of plasma or elsewhere, a useful pharmacological model would be available for the evaluation of the role of magnesium in psychophysiology.

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References

Gotfredsen, C. F., Mellerup, E. T., and Rafaelsen, O. J. (1969). 'Lithium and some other psychopharmaca. Effect on electrolyte distribution and excretion in rat.' *2nd International Meeting of the International Society for Neurochemistry*. (ed. Paoletti, Fumagalli, and Galli) Milano.

Schou, M. (1968). 'Lithium in psychiatric therapy and prophylaxis.' *J. psychiat. Res.*, 6, 67–95.

Wacker, W. E. C. (1969). 'Biochemistry of magnesium.' *Ann. N.Y. Acad. Sci.*, 162, art. 2, 717–26.

ECT

Dear Sir,

Literature on ECT is becoming an ever increasing dreary repetition of past work, or 'abusing the plaintiff's attorney' with great statistical expertise.

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I suggest that we have reached the stage where no progress is being achieved, and it is surely time that we pushed forward with further research. All those engaged with ECT would appear to be trying to achieve two things:

(1) Still further improvement in clinical efficacy.

(2) Reduction in side effects.

May I suggest the following subjects as a possible interest to those concerned with ECT:

(1) The use of tryptophan with ECT.

(2) An attempt to reduce the amount of electrical energy used by means of:

(a) Photic stimulation;

(b) Evoked potentials;

(c) Positive polarization by DC current before applying the shock.

(3) Investigation into the path of the current taken in unilateral ECT. This could be done on cats or rats.

(4) Further investigation into electric parameters generally, for which we should have to go to the neurophysiologists. Quite a considerable amount of this has been done, especially on the octopus which has the great advantages of no skull and large simple neuronal masses.

(5) Further pursuit of the excellent investigations that have been done on depression and metabolism.

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SELF-APPLIED CONSTRICTING BANDS

Dear Sir,

In their interesting presentation of a number of schizophrenics and patients with severe brain lesions, Dawson-Butterworth, Wallen and Gittleson (*Journal*, November 1969, pp. 1255–9) emphasize 'the almost complete absence of any complaint of pain or discomfort despite often quite severe injury. This needs further elucidation'. Actually this phenomenon is well documented in the literature. It was first described by Stengel and Schilder in 1928 as 'pain asymbolia'. References to it can be found in a number of publications, among them by Mayer-Gross, Slater and Roth, by Szasz, and by Weinstein and Kahn. Schilder has demonstrated the connection between pain experiences and body image. Those patients whom he described as having asymbolia for pain also have a very incomplete reaction to dangerous situations in general.

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References

Schilder, P. (1951). *The Image and Appearance of the Human Body.* International University Press.

Mayer-Gross, W., Slater, E., and Roth, M. (1954). *Clinical Psychiatry.* Cassell and Co. Ltd., London.

Szasz, Th. (1951). *Pain and Pleasure.* New York: Basic Books, Inc.

Weinstein, E. A., and Kahn, R. L. (1955). *Denial of Illness: Symbolic and Physiological Aspects.* Springfield, Illinois: Charles C. Thomas.

NURSES FOR CHILDREN'S UNITS

Dear Sir,

Recruitment and training of staff to work in in-patient units for disturbed children and adolescents is a matter which is becoming increasingly important at the present time. The Child Psychiatry Section of the R.M.P.A. is currently engaged in an investigation of the situation and hopes to be able to make a statement, with recommendations for future plans.

One of the first steps is to discover what are the staffing arrangements in units throughout the country. Dr. Christopher Wardle is collecting data and has already circularized psychiatrists known to be in charge of in-patient units for children and adolescents. There may well be some units which have been inadvertently missed, and the Section would be most grateful if anyone who is charge of a unit, or who may be planning to start one in the near future, and who has not had a letter from Dr. Wardle would write to him at The Child Guidance Clinic, 97, Heavitree Road, Exeter EX1 2NE. He is seeking information on numbers of patients and staff, both registered and non-registered, the qualifications of registered nurses employed and the designation of non-registered nurses and their rates of pay. He is also interested in methods of recruitment and advertising, forms of in-service training and other training programmes and the qualities sought after in the selection of staff.

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GOFFMAN ON ASYLUMS

Dear Sir,

I must protest at the grossly unfair review of Goffman's, *Asylums* by Dr. H. C. Beccle (*Journal*, January 1970, pp. 111–12). In my opinion, *Asylums* is a book of fundamental importance. Many of us who have worked through those years during which

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