patients who develop influenza, or are exposed to it, necessarily be vaccinated. Though the influenza vaccine used in Britain contains killed influenza virus it may also contain active or latent members of the avian-leucosis group of viruses. Doctors would do well to bear in mind that the protection from available vaccines is far from complete, and that any reduction in the risk of subsequent leukaemia would be very small. The local and other reactions of vaccination in fact probably outweigh the benefits. At the same time it seems reasonable to add influenza to rubella as an illness which should wherever possible be kept away from pregnant women.

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Progress in Behaviour Therapy

To the non-specialist who tries to keep abreast of progress in psychiatry the field of behaviour therapy presents particular difficulties. Because the techniques of treatment are based on psychological principles much of the literature can be assessed thoroughly only if the reader has some knowledge of psychology. Indeed, some of the most important papers appear in journals of psychology and much of the rest in one of the specialist journals which are devoted exclusively to behaviour therapy. These difficulties have been mitigated to some extent by accounts of the subject[1] [2] written for the general reader and by others presenting a thorough, though more specialized, review of recent advances.[3] [4]

Lately much work has been devoted to consolidating earlier advances in forms of treatment now widely used. In Wolpe's method of systemic desensitization the physician presents scenes producing fear while the patient relaxes. There is good evidence that this treatment is effective for phobic states but is progressively less potent as the component of generalized, background anxiety becomes more prominent. Some modification of treatment has therefore been sought, especially for patients with severe agoraphobia, who frequently present with generalized anxiety as well as their phobias. For these patients rapidly acting intravenous barbiturates have been used as an aid to relaxation during desensitization treatment.[5] More recently good results have been claimed with a modification of treatment in which anxiolytic drugs are given at first in large doses and then in progressively smaller ones from week to week.[6] The value of both approaches is still uncertain.

Other psychiatrists have turned to an alternative technique known as flooding (implosion) treatment, in which fear-producing mental imagery is presented continuously for long periods. There are some reasons for thinking that this may be suitable for patients who are very anxious, for the technique does not depend on relaxation, which is a requirement for desensitization. Indeed anxiety is deliberately allowed to mount up during treatment sessions. So far there is no certain evidence that flooding is superior to desensitization. However, the fact that it leads to results which are at least as good as those of desensitization is of some interest, for the treatment breaks all the rules on which desensitization is based and consequently makes us question some of our assumptions.

Studies such as these also indicate that it may not be possible to understand solely by reference to conditioning principles all the changes which desensitization and flooding bring about. A. Bandura[7] has argued cogently for greater recognition of the role of cognitive processes in behaviour therapy. For example, modification of behaviour can lead to a change in attitudes, and greater self-control may be acquired by mental rehearsal in everyday life of events which took place during treatment sessions. On this view simple conditioning and cognitive processes are not mutually exclusive but interact with one another. Thus, changes in conditioned emotional responses can lead to change of attitude, while that in turn may affect the future emotional response to the same events. Some such idea is required, for example, to explain why the effects of aversion therapy can apparently last for months or years, while the effects of aversive conditioning in the laboratory dissipate quickly.

Aversion therapy is a third form of behaviour therapy. Nowadays the aversive stimuli are usually mild shocks from a battery-operated shock-box, and they are associated repeatedly with parts of the behaviour pattern which the patient wishes to control. A recent investigation by R. Hallam and colleagues[8] adds to the growing evidence that this form of behaviour therapy also depends on factors other than simple conditioning. Patients presenting with alcoholism or for sexual deviations were studied. Evidence for conditioned anxiety was sought during and after treatment both by questioning patients and by measuring heart rate and skin conductance. No evidence was found of conditioned anxiety responses developing during treatment, even in those patients who improved clinically. Indeed when findings were compared with those of control patients who were treated with group therapy, the only change which could be attributed specifically to aversion therapy was the development of a feeling of revulsion for drink—and the authors were unable to explain how this came about.

Studies such as this are raising important questions about the ways in which simple conditioning procedures become converted into the complicated psychological and social changes which are assessed when it is decided whether a psychiatric patient has improved. Clinicians may feel that this admission of ignorance about the action of behaviour therapies is far healthier than the confident statements which were being made ten years ago that behaviour therapy followed the rules of "modern learning theory."

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