LETTER TO THE EDITOR

On self-produced and drug-produced relaxation

WE ARE writing to comment upon what seems to be a budding controversy in the use of methohexital sodium ("Brevital") for inducing deep muscular relaxation during systematic desensitization. Brady (1966; 1967) has reported beneficial clinical effects in this Journal over the past year, in contrast to the problems encountered by others (e.g. Reed, 1966). What seems to be characteristic of Brady's use of the drug is that he makes it clear to the patient that it will be used to facilitate letting go by the patient himself; Brady's patients must work along with the relaxing and calming effects of the Brevital.

We would like to allude to two avenues of recent research which seem to us of importance when considering the use of drugs like Brevital to relax people during desensitization. Davison (1966) has pointed out that the reduction of proprioceptive input from relaxed muscles is not likely to be operating as hitherto assumed by Jacobson and Wolpe because numerous studies have shown powerful classical conditioning of fear in animals that are completely curarized. It was suggested in this paper that the important variable in relaxation as an anxiety-inhibitor might be the subject's letting go of his own muscles, in contrast to their being relaxed for him by a drug. The possible relation with the Brevital work should be clear: Brady (and perhaps others who have had good experiences in its use) instructs his patients to let go of their own muscles; hence it seems eminently reasonable to hypothesize that the relaxation observed under Brevital is, at least in part, self-produced and that this self-produced relaxation is crucial. Indeed, it is yet to be demonstrated that the clinical successes using Brevital are at all due to the action of the drug.

The second line of research is related to the foregoing, but goes beyond it in considering the way people explain to themselves what is happening to them internally. Over the past 5 or 6 yr, considerable social psychological research by Schachter and his colleagues (Schachter, 1964) has demonstrated the crucial role of cognitive processes in determining emotional behavior. More recent work by Valins (1966) has suggested how this concern with cognitive processes and attribution of effects can have important and enduring effects on the alteration of already existing emotional behavior. In a process-analogue of systematic desensitization therapy, Valins and Ray (1967) effected significant reduction in snake-avoidance behavior by leading Ss to believe (incorrectly) that their hearts were not reacting to snake-stimuli. This has led Valins to speculate that Ss undergoing systematic desensitization are motivated to re-evaluate their phobic attitudes and behavior because they realize that a previously arousing stimulus is now having no physiological effects: if a S can relax himself when in a frightening situation (imagining snakes), then he might conclude that the situation is really not very frightening and subsequently act in accordance with this new cognition.

These speculations about attribution or labeling mesh neatly with the "letting go" notion. Both imply that maximum fear-reduction would be observed in Ss whose relaxation is self-induced. The motivation and efforts to "let go" would seem to be greater when a S is not being relaxed by a drug; likewise, the re-evaluation of the meaning of a fear stimulus should be greater when a S realizes that his own efforts have minimized his physiological reactions. If the subject is artificially relaxed via drugs, he has no reason to re-evaluate his attitudes or behavior vis-a-vis the phobic stimulus. His present state is a temporary one, not of his own doing. Thus, the attribution notions imply that the cognition, "I have been able to control my reactions in this situation," is a crucial one. Brady may be seen to agree since he induces a weak version of this cognition in his Brevital patients by making it clear that the drug will only facilitate their self-induced relaxation.

Another implication of this discussion concerns the crucial problem of transfer of effects from desensitization to real-life. Even if Brevital does facilitate desensitization, one could hypothesize that Ss desensitized in imagination under this drug—provided they attribute their relaxation to it—would be less likely to generalize to real-life undrugged tests of degree of fear. In fact, it seems likely that the poor showing of tranquilizers for effecting enduring reductions in fear may be due to this very difference in attribution. If Brevital-relaxed Ss attribute their calm during desensitization to the Brevital, might this not produce dependence on the drug and interfere with generalization to the undrugged state—in contrast with the subject who believes that it is he who is controlling his emotional reactions to the ordinarily stressful imaginal stimuli? Research of this nature is currently in progress.

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