

A Theory of Cognitive Balance

Psychological Reactance. A Theory of Freedom and Control. SHARON S. BREHM and JACK W. BREHM. Academic Press, New York, 1981. xiv, 432 pp. \$36.50.

Social psychology has been criticized for following fads. Lines of research and the theories behind them are not falsified or extended so much as abandoned when a new topic captures the collective fancy of those in the field. Though not always valid, this criticism contains enough truth to explain why progress in social psychology is questioned, why the data base of the field is constantly in flux, and why theories in social psychology are overly circumscribed and short-lived.

It is against the context provided by this characterization of social psychology that the book by Sharon S. Brehm and Jack W. Brehm is best appreciated. "Psychological reactance" was first described by Jack Brehm in the middle 1960's as an unpleasant drive state occasioned by the threat to or elimination of some perceived freedom. People experiencing psychological reactance take steps to maintain or restore the threatened freedom. For instance, a consumer who has narrowed her automobile choices to a Datsun or a Honda will have her freedom to choose between these cars threatened if, for instance, the local Datsun dealer temporarily closes the showroom. She may restore her freedom by traveling to a city where a Datsun is available.

Psychological reactance is an instance of the balance theories prevalent in social psychology in the 1950's and 1960's. These theories collectively assume that social behavior is best explained by taking into account the social actor's thoughts and feelings and, further, that a state of balance or harmony among these thoughts and feelings is desirable. In cases of disequilibrium, efforts follow to restore balance. Psychological reactance thus is a motivating force behind the restoration of cognitive balance in the particular case where cognitive disequilibrium has resulted from threat to a perceived freedom.

Although most of the cognitive balance theories from the 1950's and 1960's have been abandoned, psychological reactance theory has not. Jack Brehm and his co-workers have continued to inves-

tigate the nuances of the theory in the laboratory, to apply the theory to a variety of phenomena, and to modify it as appropriate. One such modification is a central concern of the present volume: the melding of reactance theory with contemporary accounts of perceived control, such as the learned helplessness model.

Psychological Reactance is divided into five sections. In the first, the basic theory and its accompanying research are described, at times in too much detail. To some readers, this detail may prove a bit overwhelming, since Brehm and Brehm provide few guidelines with which to separate the forests from the trees, or even from the leaves. This reviewer wished that space had been devoted instead to questions about the role of language and culture in determining not just the details of the reactance process but also the phenomenon itself. Also, another basic question—which mode of freedom restoration is attempted in a given situation—receives only scant attention. Finally, although the basic research described in the section relies largely on laboratory experiments with subjects who are college students, an approach to research that is subject to legitimate criticism on a variety of grounds, Brehm and Brehm acknowledge few potential limitations to the approach.

Much more satisfying to read are the subsequent sections of the volume, in which psychological reactance is related to topics in many branches of psychology. More specifically, psychological reactance is implicated in such behaviors as attitude change, social relationships, decision-making, impression management, product preference, child development, the solution of social problems like littering and pollution, and response to psychotherapy.

Although most social psychological theories are highly limited with respect to the behaviors to which they might apply, psychological reactance theory is strikingly general, with even greater expansion likely in the future. The fertility of the theory in no small way is due to the ability of Brehm and Brehm, and their colleagues, to see the significance of reactance concepts above and beyond specific paradigms and operations. Vir-

tually all social psychologists recommend an interplay between basic and applied research, but few actually conduct such integrated investigations. The success of Brehm and Brehm at pursuing reactance theory on several empirical fronts might inspire other researchers to similar efforts.

The next-to-last chapter of the book discusses freedom, reactance, and control. The discussion is of necessity preliminary, but it may prove to be the most valuable contribution of the volume. Though theories of perceived control have proliferated of late, they tend to be discussed in isolation from each other as well as from the "mainstream" of the discipline. Brehm and Brehm take steps toward presenting a coherent view of perceived control and relating the view to reactance theory (and to the rest of social psychology). One suspects that more than a few lines of future social psychological research will trace their genesis to this particular chapter.

In sum, *Psychological Reactance* is a book worthy of attention on two levels. First, it is a substantive contribution that goes beyond a simple review of the literature. The topics to which Brehm and Brehm apply reactance theory are important and diverse, and the volume provides a perspective on these applications that points the way for further applications. Second, the book is an example of what social psychological theory and research can be. Those outside the field, and particularly those within the field, might do well to study this example of the benefits that result from sustained and intelligent attention to a given topic.

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The Use of Nitrogen by Plants

Genetic Engineering of Symbiotic Nitrogen Fixation and Conservation of Fixed Nitrogen. Proceedings of a symposium, Lake Tahoe, Calif., June 1980. J. M. LYONS, R. C. VALENTINE, D. A. PHILLIPS, D. W. RAINS, and R. C. HUFFAKER, Eds. Plenum, New York, 1981. xiv, 698 pp., illus., \$69.50. Basic Life Sciences, vol. 17.

This is the proceedings of a symposium on enhancing biological production of ammonia from atmospheric nitrogen and soil nitrate. Perhaps "genetic engineering" was added in the hope that the words that once sold shares will now attract readers. There is in fact little of genetic engineering here. The 50 papers