

Book Reviews

Norms of Reward

Equity Theory. Toward a General Theory of Social Interaction. LEONARD BERKOWITZ and ELAINE WALSTER, Eds. Academic Press, New York, 1976. xx, 264 pp. \$16.50. *Advances in Experimental Social Psychology*, vol. 9.

The domain of equity theory is broad; an equitable relationship is defined as one in which the outcomes that accrue to the members of a group are proportional to their respective inputs. The selections in this volume present theory and research relevant to the antecedents and consequences of equity/inequity. If, for example, a "fair" apportionment of resources is not achieved, the participants in a relationship are predicted to engage in behaviors designed to restore equity, for example modifying their subsequent group contributions. Applications of the theory are made to such topics as organizational behavior, charity-related behavior, legal systems, harmdoer-victim relationships, and maintaining perceptions of a "just world."

The volume is set apart from much other contemporary work in social psychology by an emphasis on general theory and by a compelling optimism about the future of the discipline.

During the 1950's and 1960's there was a growing disillusionment with the omnibus theories that previously dominated psychology. Sights were lowered by largely abandoning general theories of social behavior and by developing numerous narrower theories, each with its own carefully delineated subject matter and boundary conditions. These theories increased predictability at the cost of breadth. Introductory social psychology textbooks clearly reflect this state of the field; the chapters often have little or no conceptual overlap, instead focusing on intellectually compartmentalized phenomena such as "aggression," "altruism," and "group dynamics."

Many of the contributors to *Equity Theory* desire to reverse this state of affairs. The subtitle of the volume is indicative of its tenor: "Toward a General Theory of Social Interaction." Topics such as aggression, altruism, and group dynamics can be at least partially subsumed under the rubric of equity, given

that the distribution and redistribution of resources are relevant to each. In their introductory article (which is reprinted from the *Journal of Personality and Social Psychology*), Walster, Berscheid, and Walster state, "We must try to formally relate existing social psychological theory to equity theory" (p. 36). This intent is likely to be applauded by a large number of social psychologists who believe that the pendulum has swung too far in the direction of accenting methodology and narrow concepts and must return to promoting general, integrative conceptual activity.

Many, however, would argue that equity theory is not the proper conceptual vehicle to accomplish large-scale integration. In his concluding commentary on the papers in the volume, George C. Homans expresses the belief that *power* is the "more primitive phenomenon" behind equity. In this he reflects the view of Bertrand Russell, who believed that the fundamental concept in social science should be power, just as energy is the fundamental concept in physics. Little systematic attention is devoted in the papers to the relationship between power and equity. One exception is Gerald Leventhal's insightful analysis of how allocators (occupants of power positions within groups who can dispense rewards and punishments) can use equity norms to affect the behavior of group members. Given that the preponderance of research and theory in social psychology explores how people are influenced by others (attitude change, conformity, obedience, compliance, and so on), it is refreshing to encounter an article that examines how people exert influence on others.

Accompanying the disillusionment with general theories in social psychology there has been a proliferation of works that are highly critical of the theories and methods of the discipline. Some are even talking of a "crisis of confidence" produced by unfulfilled promises of relevance and disappointment at the fruits of research labors. The preface to this volume represents an about-face, as Berkowitz and Walster begin with the thought that "a new mood of optimism is emerging in social psychology." Only time will tell whether the optimism is a

manic aberration or the beginning of a new era of theory-building, though I would bet on the latter.

Pessimists will find problems in some of the papers. In many cases, the problems are of the type that initially produced the crisis. For example, many critics have argued that in order to obtain universal propositions that are pertinent to social behavior it is necessary to employ such a high level of abstraction that practical applications of the propositions are precluded. Walster, Berscheid, and Walster present a formula that relates the degree of equity/inequity in a relationship to the values of participants' inputs and outcomes. Before one can use the formula for making precise predictions in any situation, be it laboratory or field, one must accomplish the formidable task of quantifying these inputs and outcomes. In their paper, Adams and Freedman comment on the "striking absence of attempts to quantify" crucial variables, but nevertheless believe that "equity theory is no longer at the stage of establishing basic functional relationships. Some research effort must be devoted now to measurement, not only in order that the theory might better be tested and refined, but so that it might be confidently applied to social problems" (p. 53). They suggest the possible application of Stevens's magnitude estimation procedures, which have been successfully employed in psychophysics. The fact remains, though, that until systematic effort is devoted to measurement critics can validly point to a gap between abstraction and utility.

Critics have also been fond of enumerating the ways in which the values of social scientists can color the selection of problems, interpretation of data, conceptual analysis, and application of findings. In his concluding comments, Homans notes an interesting bias displayed by many of the contributors. Most of the major propositions that appear in the articles state direct relationships between two concepts that are evaluated as "socially good"—for example, the "deeper" or more meaningful a relationship, the more positive the immediate payoff for a participant; or, engaging in altruistic behavior increases the probability that the other person will also be altruistic. It is rarely suggested that "good may come out of evil," or vice versa. Homans incisively observes, "How liberal and how American these assumptions are! . . . What nice people [the authors] all are! I do not say that they are biased, but only more sensitized to certain kinds of relationships than to others. . . . These social psychologists sometimes re-

mind me of the innocent heroines of a Henry James novel before they have been had by the subtle and wicked Europeans" (p. 236). In contrast, and with a Nietzschean emphasis on power, Homans remarks that "a just society is apt to be a static society" (p. 235). Value biases affect scientific analyses in fascinating ways.

Some of the articles demonstrate keen insight into the operation of regulatory norms. Contributions by Leventhal and by Lerner, Miller, and Holmes explore an often overlooked fact about equity—an equity norm is only one of several possible allocation rules that can be employed in groups. Instead of being based upon the relative magnitudes of members' inputs to the group (equity rule), rewards can be dispensed on the basis of an equality or parity norm, where participants receive equal rewards irrespective of their inputs; on the basis of a reciprocity norm, where participants receive from an allocator amounts commensurate with what they have given him as an individual; or on the basis of participants' needs, wherein resources are meted out in accord with a norm of Marxian justice (to each according to his needs) or a norm of social responsibility (he who requires help should receive it from those who are able to provide it). Leventhal discusses variables that affect which of these regulatory rules an allocator will employ, and Lerner, Miller, and Holmes discuss situational variables that affect the applicability of the various norms. These articles are valuable in redressing the overemphasis on equity per se; they encourage the reader to think in terms of balancing norms against one another.

The numerous applications of equity theory to social issues and problems should appeal to a broad readership. For example, Lerner, Miller, and Holmes proffer the concept of "exchange fiction," a fascinating illusion that charitable organizations should create if they wish to increase the donations they receive. People were found to contribute more to a charity when they felt they were entering into an exchange relationship, for example "buying" an unwanted candle or candy bar with the proceeds going to charity, than when they did not. Maintaining the conditional-exchange fiction makes the donor less vulnerable to future demands of charity organizations that have nothing to offer in exchange for the contributions they ask. For another example, Austin, Walster, and Utne offer theory and data that pertain to the effects of equity on the sentencing of criminals. Was the "fall from power" suffered by the Watergate conspirators a suffi-

cient sanction to make light prison terms equitable? The article is bound to be of interest to those in the newly emerging area of the social psychology of law.

In sum, *Equity Theory* should spark thought, research, and theory-building; and it is certain to interest both "basic" and "applied" social scientists. It is required reading for social psychologists and will undoubtedly be adopted as a text in many advanced undergraduate and graduate classes. The optimism and sense of direction manifested throughout the volume are welcome and overdue.

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Regulatory Enzymes

Proteases and Biological Control. Papers from a conference, Cold Spring Harbor, N.Y. E. REICH, D. B. RIFKIN, and E. SHAW, Eds. Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y., 1975. x, 1022 pp., illus. \$40. Cold Spring Harbor Conferences on Cell Proliferation, vol. 2.

This book addresses the problems of regulation of and by proteases. It covers a wide range of topics: structure-function relationships, blood coagulation, complement, kinins, fibrinolysis, protease inhibitors, cellular aspects of protease actions, and the relationship of proteases to reproduction, cell growth, and tumors. Both reviews and reports of new research are included. The reviews are generally excellent and well documented, making the book useful to students and specialists alike.

There are a number of exciting papers. Those by Stenflo *et al.*, Magnusson *et al.*, and Suttie *et al.* tell the story of γ -carboxyglutamic acid. The discovery of this unusual amino acid in the amino terminal portion of prothrombin is described, as is the role of vitamin K in its biosynthesis and in its ability to bind calcium and phospholipid.

There is also a clear explanation by Davie *et al.* of the achievements of many investigators in elucidating the chemistry of the complex pathway of blood coagulation. This chapter is a review of the cascade and its control mechanisms.

In the chapter on proteases of the reproductive system by Zaneveld *et al.* the relationship of proteases and protease inhibitors to reproductive function is reviewed. The use of natural and synthetic protease inhibitors in the control of fertility is considered.

Fritz *et al.* treat acrosin inhibitors. Acrosin, a proteolytic enzyme of the

spermatozoon, has trypsin-like properties and specificity. Small proteins that are acrosin inhibitors resemble the pancreatic secretory trypsin inhibitor in structure and action. Their localization by immunofluorescence in the male genital tract is presented in beautiful color plates.

The chapter on microbial protease inhibitors is a review of the remarkable work of Umezawa and his colleagues on the small peptides with unusual structural features that have been isolated from the culture fluid of actinomycetes—leupeptins, antipain, chymostatin, elastatinal, pepstatins, and phosphoramidon. Each of these is a powerful inhibitor of a specific enzyme or group of enzymes.

The book presents evidence that there has been progress toward elucidation of the molecular basis of the abnormality in α_1 -antitrypsin deficiency, a cause of pulmonary emphysema. In comparison to the normal MM α_1 -antitrypsin, the abnormal ZZ protein contains less carbohydrate and sialic acid (Jeppsson and Laurell). There is a decreased serum sialyltransferase activity in children with an α_1 -antitrypsin deficiency that is associated with accumulation of aggregated α_1 -antitrypsin in the liver and with hepatic cirrhosis; it is not yet clear whether the reduced enzyme activity is the cause or the result of the cirrhosis (Kuhlenschmidt *et al.*).

The chapter on affinity labeling of serine proteases by Shaw shows that new peptide chloromethyl ketones are able to discriminate among trypsin-like enzymes.

Regulation of animal virus replication by protein cleavage is also discussed. By comparison with a strain of poliovirus selected for a stable replicase, it is shown that the normal replicase is unstable to proteolysis; its degradation stops RNA synthesis. It is therefore proposed that picornaviruses regulate their function by coding for proteins that are intrinsically labile to proteases.

The probable association of plasminogen activator and fibrinolysis with malignant transformed cells is discussed by Reich, Christman *et al.*, Rifkin *et al.*, and many others. Most malignantly transformed cells increase the level of release of plasminogen activator by comparison with their normal counterparts. The papers presented take up different approaches to this relationship in various types of cells. They are progress reports, but the activity in this important field promises interesting developments.

Chapters by Hynes *et al.* and by Blumberg and Robbins treat proteases and the cell surface. There is evidence for the