Equity Theory Predictions of Behavior in Organizations

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Employees are seldom passive observers of the events that occur in the workplace. They form impressions of others and the events that affect them and cognitively or behaviorally respond based on their positive or negative evaluations. A great deal of theory and research in the social sciences has been devoted to understanding these evaluative processes. More specifically, research has attempted to uncover the major influences on individual reactions in social situations and the processes through which these reactions are formed. One useful framework for understanding how social interactions in the workplace influence employee reactions to their jobs and participation in the organization is provided by theories of social exchange processes (Adams, 1965; Homans, 1961; Jacques, 1961; Patchen, 1961; Simpson, 1972).

Exchange theories are based on two simple assumptions about human behavior. First, there is an assumed similarity between the process through which individuals evaluate their social relationships and economic transactions in the market. Social relationships can be viewed as exchange processes in which individuals make contributions (investments) for which they expect certain outcomes. Individuals are assumed to have expectations about the outcomes that should result when they contribute their time or resources in interaction with others.

The second assumption concerns the process through which individuals decide whether or not a particular exchange is satisfactory. Most exchange theories assign a central role to social comparison processes in terms of how individuals evaluate exchange relationships. Information gained through interaction with others is used to determine whether an exchange has been advantageous. For example, individuals may compare their outcomes and contributions in an exchange with the outcomes and contributions of the person with whom they are interacting. Where there is relative equality between the outcomes and contributions of both parties to an exchange, satisfaction is likely to result from the interaction.

The popularity of social exchange theories may be attributable to their agreement with commonsense observations about human behavior in social situations. Exchange theories suggest that individuals in social interaction behave in a manner similar to the "economic man" of classical economics. Most theories of motivation assume that individuals are motivated to maximize their rewards and minimize their costs (Vroom, 1964; Walster, Bercheid, & Walster, 1976). The major difference between assumptions made about economic man and social exchange theories is that the latter recognize that individuals exist in environments characterized by limited and imperfect information. The ambiguity present in

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most social situations results in individuals relying heavily on information provided by others to evaluate their actions and those of others (Darley & Darley, 1973). Social interactions therefore play a central role in providing information to individuals on the quality of their relationships with others. Our reliance upon others for valued information, however, may place constraints on how we behave in our interactions with others. In order to maintain our social relationships it may be necessary to conform to certain social norms that prevent us from maximizing our outcomes without regard to the outcome of others.

The purpose of this paper is to examine one prominent theory of social exchange processes: Adams' (1963a, 1965) theory of equity. Although Adams' theory is only one of several exchange theories that have been developed, it deserves special attention for several reasons. First, Adams' theory is perhaps the most rigorously developed statement of how individuals evaluate social exchange relationships. The careful formulation of the theory has led to considerable research interest in testing its specific predictions. The large number of studies available on equity theory provides evidence upon which to evaluate the adequacy of social exchange models. Second, the majority of research on equity theory has investigated employee reactions to compensation in employer-employee exchange relationships. The theory and supporting research are therefore highly relevant to increasing our understanding of behavior in organizational settings.

In the sections that follow, Adams' equity theory will be briefly summarized and the research evidence reviewed. The major empirical and conceptual questions surrounding the theory will then be discussed. Finally, the generalizability of the theory will be considered and suggestions made for applying equity theory to several previously neglected areas of organizational behavior.

EQUITY THEORY

Antecedents of Inequity

The major components of exchange relationships in Adams' theory are inputs and outcomes. Inputs or investments are those things a person contributes to the exchange. In a situation where a person exchanges his or her services for pay, inputs may include previous work experience, education, effort on the job, and training. Outcomes are those things that result from the exchange. In the employment situations, the most important outcome is likely to be pay. In addition, other outcomes such as supervisory treatment, job assignments, fringe benefits, and status symbols may also be considered in evaluating the exchange. To be considered in evaluating exchange relationships, inputs and outcomes must meet two conditions. First, the existence of an input or outcome must be recognized by one or both parties to the exchange. Second, an input or outcome must be considered relevant to the exchange (i.e., have some marginal utility). Unless inputs or outcomes are both recognized and considered relevant, they will not be considered in evaluating an exchange relationship.

Adams suggests that individuals weight their inputs and outcomes by their importance to the individual. Summary evaluation of inputs and outcomes are developed by separately summing the weighted inputs and weighted outcomes. In the summation process, inputs and outcomes are treated as independent even though they may be highly related (e.g., age and previous work experience would be considered as separate inputs). The ratio of an individual's (called "person's") outcomes to inputs is compared to the ratio of outcomes to inputs of another individual or group (called "other"). Other may be a person with whom you are engaged in a direct exchange, another individual engaged in an exchange with a common third party, or person in a previous or anticipated work situation. The selection of comparison others is discussed in more detail below. The important consideration at this point is that person evaluates his or her outcomes and inputs by comparing them with those of others.

Equity is said to exist whenever the ratio of person's outcomes to inputs is equal to the ratio of other's outcomes and inputs.

$$\frac{O_p}{I_p} = \frac{O_o}{I_o}$$

Inequity exists whenever the two ratios are unequal.

$$\frac{O_p}{I_p} < \frac{O_o}{I_o} \quad \text{or} \quad \frac{O_p}{I_p} > \frac{O_o}{I_o}$$

Several important aspects of this definition should be recognized. First, the conditions necessary to produce equity or inequity are based on the individual's perceptions of inputs and outcomes. In behavioral terms, the objective characteristics of the situation are of less importance than the person's perceptions. Second, inequity is a relative phenomenon. Inequity does not necessarily exist if person has high inputs and low outcomes as long as the comparison other has a similar ratio. Employees may therefore exhibit satisfaction on a job that demands a great deal and for which they receive very little if their comparison other is in a similar position. Third, inequity exists when a person is relatively underpaid and relatively overpaid. It is this implication of Adams' theory that has generated the most attention since it suggests that people will react in a counterintuitive fashion when they are overpaid. Research evidence indicates, however, that the threshold for underpayment is lower than that associated with overpayment (Leventhal, Weiss, & Long, 1969). As might be expected, individuals are somewhat more willing to accept overpayment in an exchange relationship than they are to accept underpayment. The relationship between the ratios of outcomes to inputs of person and other might best be considered along a continuum reflecting different degrees of inequity ranging from overpayment on one extreme to underpayment on the other. The midpoint of the continuum represents the point at which the two ratios are equal. Equity is defined as a zone which is asymmetric about the midpoint. The asymmetry reflects the fact that the thresholds for overpayment and underpayment may differ.

One final aspect of Adams' formulation should be mentioned. Walster et al. (1976) have shown that the formula relating to two ratios of person and other is inadequate in situations where inputs might be negative. Following their example, consider the situation where person's inputs have a value of 5 and outcomes are −10 while other's inputs and outcomes are −5 and 10, respectively. Using Adams' formula, these two ratios are equal and thus a condition of equity would be said to exist.

$$\frac{O_p}{I_p} = \frac{-10}{5} = -2 \quad \text{and} \quad \frac{O_o}{I_o} = \frac{10}{-5} = -2$$

Obviously, a situation in which person makes positive inputs but receives negative outcomes is inequitable when compared to another who makes negative inputs but receives positive outcomes. Walster et al. (1976) have proposed an alternative formulation that overcomes this problem. Equity and inequity are defined by the following relationship.

$$\frac{\text{Outcomes}_p - \text{Inputs}_p}{(|\text{Inputs}_p|)_p^k} \quad \text{compared with} \quad \frac{\text{Outcomes}_o - \text{Inputs}_o}{(|\text{Inputs}_o|)_o^k}$$

The reader interested in pursuing this subject further can find a more detailed discussion of this formula and its terms in Walster et al. (1976).

Consequence of Inequity

The motivational aspects of Adams' theory are derived from the hypothesized consequences of perceived inequity. The major postulates of the theory can be summarized simply: (1) perceived inequity creates tension in the individual; (2) the amount of tension is proportional to the magnitude of the inequity; (3) the tension created in the individual will motivate him or her to reduce it; and (4) the strength of the motivation to reduce inequity is proportional to the perceived inequity (Adams, 1965). In others words, the presence of inequity motivates the individual to change the situation through behavioral or cognitive means to return to a condition of equity.

The methods through which individuals reduce inequity are referred to as methods of inequity resolution. Adams describes six alternative methods of restoring equity: (1) altering inputs; (2) altering outcomes; (3) cognitively distorting inputs or outcomes; (4) leaving the field; (5) taking actions designed to change the inputs or outcomes of the comparison other; or (6) changing the comparison other. The choice of a particular method of restoring equity will depend upon the characteristics of the inequitable situation. Adams suggests, however, that the person will attempt to maximize positively valent outcomes and minimize increasingly effortful inputs in restoring equity. In addition, person will resist changing the object of comparison and distorting inputs that are considered central to the self-concept. In general, it is considered easier to distort other's inputs and outcomes than the person's own inputs or outcomes. Finally, leaving the field (e.g., turnover from an organization) as a method of reducing inequity will only be considered in extreme cases of inequity.

RESEARCH ON EQUITY THEORY PREDICTIONS OF EMPLOYEE REACTIONS TO PAY

Considerable research interest has been generated in testing predictions from Adams' theory. The most recent review of equity theory research summarized the results from over 160 investigations (Adams & Freedman, 1976). Although equity considerations are relevant to a number of different types of social relationships (cf., Walster et al., 1976), most early research focused attention on the employer-employee exchange relationship. These studies were generally laboratory investigations in which subjects were hired to perform relatively simple tasks such as proofreading or interviewing. The simple nature of the tasks suggests that differences found between subjects in the quantity or quality of performance would be attributable to motivation levels rather than differences in skills or abilities. Perceived inequity was induced by either manipulating the subject's perceived qualifications to be hired for the task (qualifications manipulation) or by actual differences in pay rates (manipulation by circumstances).

Predictions from equity theory about employee reactions to pay distinguish between two conditions of inequity (underpayment versus overpayment) and two methods of compensation (hourly versus piece rate). Specific predictions are summarized for each condition in Table 1. The methodology and results of selected studies designed to test these predictions are presented in Table 2. More extensive reviews of this literature can be found in Adams and Freedman (1976), Campbell and Pritchard (1976), Goodman and Friedman (1971), Lawler (1968a), Opsahl and Dunnette (1966), and Pritchard (1969).

A review of the studies summarized in Table 2 suggests general support for equity theory predictions. In the overpayment-hourly condition, a number of studies have provided some support for the prediction that overpaid subjects will produce higher quantity than equitably paid subjects (Adams & Rosenbaum, 1962; Arrowood, 1961; Goodman & Friedman, 1968; Lawler, 1968b; Pritchard, Dunnette, & Jorgenson, 1972; Wiener, 1970). Several studies have either failed to support or provided mixed support for equity theory predictions in this condition, although they often differed from the supporting studies in the manner in which perceived inequity was experimentally manipulated (Anderson & Shelly, 1970; Evans & Simmons, 1969; Friedman & Goodman, 1967; Valenzi & Andrews,

TABLE 1
EQUITY THEORY PREDICTIONS OF EMPLOYEE REACTIONS TO INEQUITABLE PAYMENT

	Underpayment	Overpayment
Hourly payment	Subjects underpaid by the hour produce less or poorer-quality output than equitably paid subjects	Subjects overpaid by the hour produce more or higher-quality output than equitably paid subjects
Piece-rate payment	Subjects underpaid by piece rate will produce a large number of low-quality units in comparison with equitably paid subjects	Subjects overpaid by piece rate will provide fewer units of higher quality than equitably paid subjects

TABLE 2
SUMMARY OF EQUITY THEORY RESEARCH ON EMPLOYEE REACTIONS TO PAY

Study	Equity condition	Method of induction	Task	Dependent variables	Results
Adams (1963b)	Overpayment: hourly and piece rate	Qualifications	Interviewing	Productivity, work quality	Hourly-overpaid subjects produced greater quantity and piece-rate-overpaid subjects produced higher quality and lower quantity than equitably paid subjects.
Adams and Jacobsen (1964)	Overpayment: piece rate	Qualifications	Proofreading	Productivity, work quality	Overpaid subjects produced less quantity of higher quality.
Adams and Rosenbaum (1962)	Overpayment: hourly and piece rate	Qualifications	Interviewing	Productivity	Hourly-overpaid subjects produced more quantity while piece-rate-overpaid subjects produced less quantity.
Anderson and Shelly (1970)	Overpayment: hourly	Qualifications, importance of task	Proofreading	Productivity, work quality	No differences were found between groups
Andrews (1967)	Overpayment and underpayment: piece rate	Circumstances, previous wage experiences	Interviewing Data checking	Productivity, work quality	Overpaid subjects produced higher quality and underpaid subjects produced greater quantity and lower quality.
Arrowood (1961)	Overpayment: hourly	Qualifications, work returned	Interviewing	Productivity	Overpaid subjects had higher productivity.
Evans and Simmons (1969)	Overpayment and underpayment: hourly	Competence, authority	Proofreading	Productivity, work quality	Underpaid subjects produced more of poorer quality in competence condition. No differences found in other conditions.
Friedman and Goodman (1967)	Overpayment: hourly	Qualifications	Interviewing	Productivity	Qualifications induction did not affect productivity. When subjects were classified by perceived qualifications, unqualified subjects produced less than qualified subjects.
Goodman and Friedman (1968)	Overpayment and underpayment: hourly	Qualifications, quantity versus quality emphasis	Questionnaire coding	Productivity, work quality	Overpaid subjects produced more than equitably paid subjects. Emphasis on quantity versus quality affected performance.
Goodman and Friedman (1969)	Overpayment: piece rate	Qualifications, quantity versus quality emphasis	Questionnaire scoring	Productivity, work quality	Overpaid subjects increased productivity or work quality, depending upon induction.
Lawler (1968b)	Overpayment: hourly	Qualifications, circumstances	Interviewing	Productivity, work quality	Overpaid (unqualified) subjects produced more of lower quality. Subjects overpaid by circumstances did not differ from equitably paid group.
Lawler, Koplin, Young, and Fadern (1968)	Overpayment: piece rate	Qualifications	Interviewing	Productivity, work quality	Overpaid subjects produced less of higher quality in initial work session. In later sessions, subject's perceived qualifications and productivity increased. The need for money was related to productivity for both groups.
Lawler and O'Gara (1967)	Underpayment: piece rate	Circumstances	Interviewing	Productivity, work quality	Underpaid subjects produced more of lower quality and also perceived their job as more interesting but less important and complex.

TABLE 2
SUMMARY OF EQUITY THEORY RESEARCH ON EMPLOYEE REACTIONS TO PAY (CONTINUED)

Study	Equity condition	Method of induction	Task	Dependent variables	Results
Pritchard, Dunnette, and Jorgenson (1972)	Overpayment and underpayment: hourly and piece rate	Circumstances, actual change in payment	Clerical task	Performance satisfaction	Circumstances induction did not result in performance differences for piece rate, but some support was found for hourly overpay and underpay. Changes in pay rate supported hourly predictions. Some support found for piece-rate-overpayment prediction but not for underpayment.
Valenzi and Andrews (1971)	Overpayment and underpayment: hourly	Circumstances	Clerical task	Productivity, work quality	No significant differences found between conditions. 27 percent of underpaid subjects quit. No other subjects in other conditions quit.
Wiener (1970)	Overpayment: hourly	Qualifications, inputs versus outcomes, ego-oriented versus task-oriented	Word manipulation	Productivity, work quality	Outcome-overpayment subjects produced more. Input-overpaid subjects produced more only on ego-oriented task.
Wood and Lawler (1970)	Overpayment: piece rate	Qualifications	Reading	Amount of time reading, quality	Overpaid subjects produced less, but this could not be attributed to striving for higher quality.

1971). In the overpayment-piece-rate condition, support for the theory has been found by Adams (1963b), Adams and Jacobsen (1964), Adams and Rosenbaum (1962), Andrews (1967), and Goodman and Friedman (1969). Mixed or marginal support for the theory was provided by Lawler, Koplin, Young, and Fadem (1968), and Wood and Lawler (1970). Although fewer studies have examined the underpayment conditions, support for both the hourly and piece-rate predictions have been reported (Andrews, 1967; Evans & Simmons, 1969; Lawler & O'Gara, 1967; Pritchard et al., 1972).

Although the support for Adams' theory appears impressive, several questions concerning the interpretation of the study results need to be considered. Following Vroom (1964), Goodman and Friedman (1971) suggest that the following concepts must be operationalized to provide a complete and unambiguous test of equity theory: (1) person's evaluation of his or her inputs; (2) person's perception of the relevance of the inputs for task performance; (3) person's perception of the experimenter's perception of the inputs; (4) person's perception of other's outcome-input ratio; (5) person's perception of future outcomes; (6) person's perception of the outcomes relative to alternative outcomes (e.g., past outcomes); and (7) relative importance person attaches to using 4, 5, and 6 as comparison objects. Control over these factors is central to ensuring a high degree of internal validity for the results of experimental studies. To the extent these factors may remain uncontrolled, conclusive tests of the theory become very difficult and alternative explanations for the study results can be raised. It should be apparent that many of these factors remain uncontrolled in even the most rigorous laboratory experiment. For example, Goodman and Friedman (1971) point out that the comparison other used by subjects is ambiguous in most studies. To the extent subjects use different comparison others than intended by the experimenter, interpretation of the study results becomes problematic.

A number of writers have been critical of research on equity theory precisely because several alternative explanations may exist for observed differences in the performance of subjects, particularly in the overpayment condition (Campbell & Pritchard, 1976; Goodman & Friedman, 1971; Lawler, 1968a; Pritchard, 1969). Two problems are commonly raised in interpreting the results of research on overpayment inequity, and both have to do with experimental manipulations of perceived inequity. Inequity is commonly induced in subjects by challenging their qualifications for the job. Subjects are led to believe they do not possess the necessary experience or training to qualify for the rate of pay they are to receive. Although seldom verified, it is assumed that this will result in experienced overpayment inequity (i.e., subjects believe they are being paid more than they should receive given their qualifications).

Challenging the qualifications of subjects, however, may also be experienced as threatening their self-esteem or perceived job security. Subjects may therefore work harder to prove to themselves (and to the experimenter) that they are capable of performing the task or to protect their job security. In other words, subjects may perform as predicted by the theory for reasons related to the experimental treatment but not to perceived inequity. Support for these alternative explanations for results of research on overpayment inequity comes from several sources. Andrews and Valenzi (1970) had subjects role-play an overpayment inequity situation in which subject qualifications to perform the task were challenged. When asked to indicate how they would respond in this situation, none of the subjects responded in terms of wage inequity. A majority of subjects, however, responded in terms of their self-image as a worker. In another study, Wiener (1970) found that overpaid subjects produced more than equitably paid subjects only when the task was ego-involving (i.e., task performance was central to the self-concept). Based on this finding, he argued that the performance of subjects in the overpayment condition was more highly attributable to devalued self-esteem brought about by challenges to their qualifications than to feelings of inequity. In studies where perceived inequity has been manipulated by means other than challenging the subject's qualifications (e.g., by actual changes in pay rates), less support is commonly found for equity theory predictions (Evans & Simmons, 1969; Pritchard et al., 1972; Valenzi & Andrews, 1971).

Several writers have seriously questioned the extent to which overpayment in work organizations may lead to perceived inequity. Locke (1976), for example, argues that employees are seldom told they are overpaid or made to feel incompetent to perform their job duties as is the case in laboratory experiments. He argues that employees are more likely to simply adjust their idea of equitable payment to justify what they are getting. This raises the possibility that employees in organizations use their pay rates as a primary source of information about their contributions (e.g., "if the organization is willing to pay this much, I must be making a valuable contribution"). Campbell and Pritchard (1976) also point out that employer-employee exchange relationships are highly impersonal when compared to exchanges between two close friends. Perceived overpayment inequity may be more likely in the latter exchange relationship than in the former. Individuals may react to overpayment inequity only when they believe their actions have led to someone else's being treated unfairly (Campbell & Pritchard, 1976; Walster et al., 1976). From the employee's standpoint in work organizations, there may be little objective evidence that the organization feels it is being treated unfairly.

In summary, predictions from Adams' theory about employee reactions to wage inequities have received some support in the research literature. Research support for the theory appears to be strongest for predictions about underpayment inequity. Although there are fewer studies of underpayment than of overpayment, results of research on underpayment are relatively consistent and subject to fewer alternative explanations. There are both theoretical and empirical grounds for being cautious in generalizing the results of research on overpayment inequity to employee behavior in work organizations. Where such studies have manipulated perceived inequity by challenging subjects' qualifications for the job, observed differences in performance can be explained in ways that have little to do with inequity. Where other methods of inducing overpayment inequity are used, considerably less support is often found for the theory. Predicted differences in productivity and satisfaction due to overpayment inequity are often in the predicted direction but fail to reach acceptable levels of statistical significance.

Conceptual Issues in Equity Theory

In addition to the methodological considerations discussed with respect to research on equity theory, several writers have also raised questions about the conceptual adequacy of the theory (e.g., Weick, 1967). Since theories or models of social processes are ways of making sense out of our environment by simplifying relationships between variables, it should not be surprising that any given theory fails to capture the complexity we know to exist in the real world. Consequently, there are usually a number of limitations that can be pointed out in any given theory, and equity theory is no different from other motivation approaches in this regard. The conceptual issues to be discussed below point to several limitations of the present formulation of equity theory, and they should be viewed as areas in which the theory may be clarified or extended through further research.

Concept of Equity

The concept of equity is most often interpreted in work organizations as a positive association between an employee's effort or performance on the job and the pay he or she receives (Goodman, 1977). In other words, it is believed that employees who contribute more to the organization should receive higher amounts of the rewards the organization has to offer. This belief is often referred to as the "equity norm." Adams (1965) suggests that individual expectations about equity or "fair" correlations between inputs and outcomes are learned during the process of socialization (e.g., in the home or at work) and through comparison with the inputs and outcomes of others. Although few would question the existence of an equity norm governing social relationships, the derivation of this norm and its pervasiveness remain somewhat unclear. In addition, it is important to determine the extent to which the equity norm is defined by an individuals' effort and performance or by other types of contributions they may make to organizations.

Walster et al. (1976) suggest the norm of equity originates in societal attempts to develop methods of allocating rewards that maximize the amount of collective reward. Through evolving ways to "equitably" distribute rewards and costs among its members, groups or organizations can maximize the total rewards available. Groups therefore induce their members to behave equitably and establish reinforcement systems to ensure this norm is followed in social relationships. It should be apparent, however, that groups or society in general frequently deviate from the equity norm in distributing rewards. Social welfare programs and old-age medical assistance, for example, are instances in which resources are distributed on the basis of need rather than an assessment of the individual's contribution to the larger group.

The equity norm appears to be only one of several norms that govern the distribution of rewards in social relationships. An important question concerns what factors influence the extent to which rewards are distributed equitably or allocated on some other basis. In an analysis of reward allocation in small groups, Leventhal (1976) suggests that the particular distribution rule adopted in allocating rewards is related to both the goals of the reward system and characteristics of the allocator. Table 3 contrasts three decision rules that can be used in allo-

TABLE 3
DISTRIBUTION RULES FOR ALLOCATING REWARDS

Distribution rule	Situations where distribution rule is likely to be used	Factors affecting use of distribution rule
Equity/contributions (outcomes should match contributions)	1 Goal is to maximize group productivity. 2 A low degree of cooperation is required for task performance.	1 What receiver is expected to do 2 What others receive 3 Outcomes and contributions of person allocating rewards 4 Task difficulty and perceived ability 5 Personal characteristics of person allocating rewards and person performing
Social responsibility/needs (outcomes distributed on the basis of needs)	1 Allocator of rewards is a close friend of the receiver, feels responsible for the well-being of the receiver, or is successful or feels competent.	1 Perceived legitimacy of needs 2 Origin of need (e.g., beyond control of the individual)
Equality (equal outcomes given to all participants)	1 Goal is to maximize harmony, minimize conflict in group. 2 Task of judging performer's needs or contribution is difficult. 3 Person allocating rewards has a low cognitive capacity. 4 A high degree of cooperation is required for task performance. 5 Allocator anticipates future interactions with low-input member.	1 Sex of person allocating rewards (e.g., females more likely to allocate rewards equally than males) 2 Nature of task

Source: Adapted from Leventhal (1976).

cating rewards (equity, equality, and responsiveness to needs) and the situations where each rule is most likely to be used. The equity norm appears to be most closely associated with the goal of maximizing productivity in a group, while rewards are most likely to be distributed equally when the goal is to minimize group conflict.

Distribution rules represent an important concept in understanding reward systems (Cook, 1975; Goodman, 1977). Distribution rules identify the association between any dimension of evaluation and the levels of outcomes to be distributed. A consideration of distribution rules suggests both that different norms may govern the distribution of rewards in organizations and that different factors may weight more heavily in allocating rewards using any given norm. For example, in organizations where an equity norm is followed, it is common to find that an in-

dividual's contribution in terms of seniority is a more important basis for rewards than is actual job performance. Our ability to predict how individuals react to reward systems therefore depends upon identifying the particular norm they believe should be followed and the specific dimension (i.e., input) they feel is most important in allocating rewards. Equity theory often assumes that rewards should be given in relation to a person's contribution and, further, that performance is the most important contribution in the work setting. The accuracy of our predictions of employee reactions to reward systems can be increased, however, by recognizing the existence of several norms governing the distribution of rewards and the differential importance that may be attached to employee inputs.

Choice of a Method of Inequity Resolution

Although the several factors Adams (1965) suggested individuals will take into consideration in choosing among alternative methods of reducing inequity make the theory more testable, they do not allow a totally unequivocal set of predictions to be made from the theory (Wicklund & Brehm, 1976). In any situation, a given method of restoring inequity may satisfy one of these rules while at the same time violating another. Cognitively distorting inputs as a method of reducing inequity, for example, may allow the individual to maximize positively valent outcomes, but at the expense of threatening aspects central to his or her self-concept. When such a conflict occurs, it is difficult to specify how an individual will react to inequity. Opsahl and Dunnette (1966) have pointed out that the inability to predict how individuals will react to inequity makes conclusive tests of the theory problematic. If an overcompensated group fails to respond to inequity by increasing inputs, can this be interpreted as a disconfirmation of the theory or as an instance in which other methods of reducing inequity (e.g., cognitively distorting your own or other's inputs or outcomes) are being used? This ambiguity associated with equity theory appears to result in a situation where almost any result of empirical research can be explained in terms of the theory.

Many of the studies of equity theory have failed to capture the complexity of inequity resolution processes (Adams & Freedman, 1976). It is common in such studies to set up an inequitable situation and determine the extent to which subjects reduce inequity by changing work quantity or quality. In more personal exchange relationships, however, the method of reducing inequity chosen may be sensitive to cues from the other party to the exchange (Adams & Freedman, 1976). For example, in overpayment situations, an organization may suggest employees increase their skills and abilities through further education rather than increasing their effort on the job. Research also suggests that strategies for reducing inequity are dynamic and may change over time. Lawler et al. (1968) found that subjects reduced overpayment-piece-rate inequity by increasing work quality in an initial work session but increased their perceived qualifications to perform the task in subsequent sessions. Cognitively changing perceived inputs (qualifications) may have allowed subjects to reduce the overpayment inequity in a manner that permitted increased quantity of production and thus increased rewards to be received.

The way in which individuals reduce perceived inequity appears to be a complex process. A greater understanding of this process is essential to increasing the accuracy of predictions from equity theory.

Choice of a Comparison Other

One area of recent concern in equity theory is to develop a greater understanding of how individuals choose comparison standards against which to evaluate inputs and outcomes. Adams (1965) suggested that comparison others may be the other party to the exchange or another individual involved in an exchange with the same third party. Until recently, little has been known about the actual comparison standards people use or the process through which alternative comparisons are chosen.

Goodman (1974) differentiated between three classes of referents: (1) others, (2) self-standards, and (3) system referents. Others are people who may be involved in a similar exchange either with the same organization or with some other organization. Self-standards are unique to the individual but different from his or her current ratio of outcomes and inputs; for example, individuals may compare their current ratio against inputs and outcomes associated with an earlier job. System referents are implicit or explicit contractual expectations between an employer and employee. At the time of being hired, an employee may be promised future rewards and this can become a basis for evaluating the exchange. In a study of 217 managers, Goodman (1974) found each of these referents was used in determining the degree of satisfaction with pay. Perhaps his most important finding was that a majority of managers reported using multiple referents in assessing their satisfaction. For example, 28 percent of the managers indicated they compared their present situation against both those of others and self-standards. He also found that higher levels of education were associated with choosing a comparison referent outside the organization.

Based on his research, Goodman (1977) has developed a model of the factors that may influence the selection of comparison person or standard. This model is presented in Figure 1. He postulates that the choice of a referent is a function of both the availability of information about the referent and the relevance or attractiveness of the referent for the comparison. Availability of information about referents is primarily determined by the individual's propensity to search and his or her position in an organization (i.e., access to information). The relevance or attractiveness of a referent is determined jointly by the instrumentality of the referent for satisfying the individual's comparison needs and the number and strength of needs related to a referent. A more detailed discussion of this model can be found in Goodman (1977).

Goodman's (1974, 1977) work represents an important step in increasing our understanding of how social comparison processes are made. If his model is supported by subsequent research, it will provide an important tool for both researchers and managers in determining who or what employees use in making comparisons about their present level of rewards.

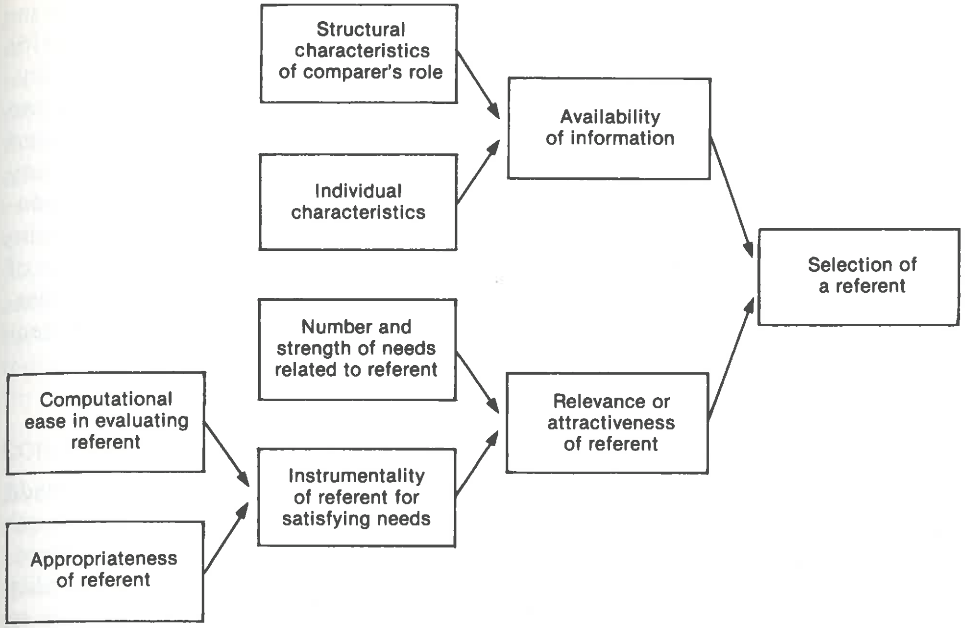

FIGURE 1
Factors influencing the selection of a referent in social comparison processes. (Adapted from Goodman, 1977.)

Individual and Situational Differences in Reactions to Inequity

One area of research on equity theory that has received little attention is the impact of individual and situational differences on employee perceptions and reactions to inequity. The importance of considering individual differences was first demonstrated by Tornow (1971). Recognizing that the classification of something as an input or an outcome is often ambiguous in equity comparisons, he suggested that individuals may have a stable tendency to classify ambiguous job elements as either inputs or outcomes. Using the data collected by Pritchard et al. (1972), he subsequently classified subjects as either input- or outcome-oriented and found this factor had an impact on their reactions to inequity. For example, outcome-oriented individuals were found to be more sensitive to overpayment than were subjects with an input orientation. Individual differences were therefore having an effect on how individuals reacted to perceived inequity. This is an area in which more research is needed to isolate the stable traits of individuals that can affect inequity perceptions. One variable that may be promising is the individual's level of internal/external control (Rotter, 1966). It is possible that individuals who believe events that happen to them are under their control (internals) would have a greater propensity to attempt to reduce perceived inequity than individuals who believe events are largely beyond their control (externals).

The importance of considering situational factors in employee reactions to inequity has already been noted in discussing Campbell and Pritchard's (1976) personal-impersonal exchange continuum. In the overpayment situation, employees may not react strongly to perceived inequity since the exchange with the larger organization is quite impersonal. However, where exchanges are between two close friends, both parties to the exchange may be highly sensitive to any inequities. Walster et al. (1976) have noted that an individual who feels responsible for an inequitable situation may express greater tension than someone who inadvertently finds himself or herself in an inequitable relationship. The locus of cause for a perceived inequity may therefore represent an important consideration in how individuals react to perceived inequity, particularly when the inequity is favorable to themselves.

RELATIONSHIP OF EQUITY THEORY TO EXPECTANCY THEORY

Much of the original interest in equity theory came from the fact that it made predictions about individual behavior that were difficult to incorporate into existing theories of motivation (Weick, 1967). For example, in the overpayment-piece-rate situation equity theory predicted that employees will increase quality and reduce quantity of performance. In contrast, expectancy theory appears to suggest that individuals attempt to maximize the attainment of valued outcomes and that motivation levels should be high whenever attractive outcomes (e.g., pay) are made directly contingent upon performance. Considerable research interest has been generated in trying to test these seemingly competing predictions.

Lawler (1968a) was one of the first to suggest that equity theory and expectancy theory may not be irreconcilable in terms of their predictions. A review of the equity theory literature led Lawler to conclude that the results of studies of the hourly payment condition could be explained equally well by expectancy theory. In the piece-rate conditions, expectancy theory could make the same predictions as equity theory if it was assumed that perceived inequity influenced the valence or attractiveness of rewards. It is possible that increasingly large piece-rate rewards have a decreasing valence for employees and that the amount of reward that has been received influences the valence of additional amounts of the reward. Lawler felt that if perceived equity were explicitly recognized as one of the factors affecting the valence of outcomes, expectancy theory could explain the results of equity theory research. Lawler (1973) and others (Campbell & Pritchard, 1976) have therefore concluded that equity considerations could be subsumed under the more general expectancy theory of motivation.

Although the two theories do not really appear to be in conflict, it is unclear whether this reflects genuine similarity or the ambiguity with which the theories are stated. As noted by Campbell and Pritchard (1976), both theories are somewhat ambiguous and thus it always is possible to come up with some previously unrecognized outcome that will reconcile competing predictions. In addition, the effects of perceived inequity on the valence of outcomes remains to be demonstrated. Although Lawler et al. (1968) found that the need for money correlated more highly with productivity for overpaid subjects than for equitably paid subjects, need for money was not experimentally manipulated and thus the direction of causality is difficult to establish. In addition, a composite measure of need for money was constructed based on measures taken both before and after the manipulation of perceived overpayment. Consequently, the effects of the inequity manipulation on the subject's need for money (an indicator of valence of money) cannot be determined.

In view of the ambiguity surrounding the two theories and the lack of evidence concerning the effects of perceived inequity on the valence of outcomes, it is perhaps premature to conclude that equity theory can be incorporated into expectancy theory. As Adams (1968) has argued, it may be less useful to debate which theory can be incorporated into the other than to identify the conditions in which individual behavior is guided by either equity or expectancy considerations.

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

Evaluating the current status of equity theory presents something of a dilemma; depending upon the particular body of literature one examines, very different conclusions can be drawn. On the one hand, researchers interested in organizations have largely moved away from equity theory to other motivation approaches in explaining behavior in the workplace. After a high level of initial research interest, organization researchers appear to have followed the arguments of Lawler (1973) and others that equity theory can be incorporated into expectancy theory. Consequently, research involving applications of equity theory to organizational settings has decreased in recent years. If the current literature in social psychology is examined, on the other hand, a very different picture emerges. Walster et al. (1976) recently introduced a reformulation of Adams' original theory, and it has been heralded as a general theory of social behavior capable of integrating a number of the minitheories (e.g., reinforcement theory, cognitive consistency theory) that currently exist. Berkowitz and Walster (1976, p. xi) go so far as to talk about "a new mood of optimism" emerging in social psychology, at least in part attributable to the promise of equity theory for developing a more comprehensive understanding of social behavior.

Has equity theory largely outlived its usefulness as a theory of motivation in organizations, or is it a theory capable of providing general explanations of behavior in a number of different social settings? This is a difficult question to answer at the present time. However, it appears that equity theory has more to contribute to our understanding of organizational behavior than previous research would suggest. The early emphasis of organizational research on equity theory predictions of employee reactions to pay was perhaps both its greatest strength and weakness. On the positive side, focusing on monetary rewards provided a research setting in which the variables were easily quantifiable and the predictions were relatively unambiguous (or so it seemed at the time). On the negative side, exclusive interest in employee reactions to pay prevented the extension of equity theory to other areas of social relationships in organizations. Adams (1965) was careful to note that equity theory was relevant to any social situations in which exchanges may take place (e.g., between coworkers, between superiors and subordinates, etc.). With the exception of Goodman's (1977) recent work on social comparison process in organizations, the extension of the theory to a broad range of social relationships has been left to social psychologists (see Berkowitz & Walster, 1976). Several areas of behavior in organizations that might profitably be examined in equity theory terms are discussed below.

Previous research on equity theory has largely been concerned with individual reactions to perceived inequity. What appears to have been neglected are the instrumental uses of inequity in interpersonal relationships (Adams & Freedman, 1976). Individuals in organizations, for example, may purposely create perceived inequity in social relationships as a way of improving their situation or achieving certain goals. Supervisors may routinely attempt to convince employees that they are not contributing as much as another employee or at a level expected for the pay they receive. Creating perceptions of overpayment inequity may therefore be viewed as a strategy designed to increase the level of employee performance. Just as routinely, employees may attempt the same strategy, but in reverse. Ingratiation attempts (Wortman & Linsenmeier, 1977) may be viewed as strategies on the part of lower-status employees to increase the outcomes of those in higher level positions. To the extent that those in higher positions perceive an inequity in their social relationships with lower-level employees, they will feel obligated to reciprocate. Research evidence that individuals may create perceived inequity in social relationships as a means of accomplishing certain objectives was presented by Leventhal and Bergman (1969). They found that subjects who were moderately underrewarded attempted to reduce the inequity by taking some of their partner's money when given the opportunity. Subjects who were extremely underrewarded, however, increased the discrepancy between their own rewards and those of their partner by increasing his or her advantage. By intensifying the inequity, subjects may have been following a deliberate strategy designed to convince their partner that a more equitable distribution of rewards was necessary.

Campbell, Dunnette, Lawler, and Weick (1970) have suggested the importance of viewing leadership processes in terms of exchanges between superiors and subordinates. In describing what they call the "unilateral fiction" in leadership research, they point out that managers are most often viewed as initiating the action of others and that superior-subordinate interactions are assumed to end when the manager issues a directive. Relationships between superiors and subordinates in organizations, however, are more accurately characterized by reciprocal-influence processes. A great deal of interaction between managers and employees in organizations may involve bargaining processes in which the terms of an exchange are established to the satisfaction of each party. When the manager issues a directive that is carried out by the employee, it is reasonable to assume that expectations of repayment are formed in the employee. Furthermore, when employees do a favor for the manager it may result in a perceived obligation to reciprocate on the part of the manager. Reciprocal relationships between managers and employees can be described in terms of equity theory; taking such a perspective may increase our understanding of the leadership process.

Equity theory appears to offer a useful approach to understanding a wide variety of social relationships in the workplace. Additional research is needed to extend predictions from the theory beyond simple questions about how employees react to their pay. As Goodman and Friedman (1971) have noted, equity theory predictions about employee performance levels may be one of the less interesting and useful applications of the theory. The effects of perceived inequity on employee performance levels are often slight and of limited time duration. The utility of equity theory may be greatest for increasing our understanding of interpersonal interactions at work (e.g., supervisory-subordinate relationships). In this regard, researchers interested in organizations may want to follow the lead of social psychologists in extending applications of the theory.

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Procedural Justice and Worker Motivation

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When people do not receive the rewards to which they feel entitled, they are often motivated to do something about it. The problem comes in specifying which types of actions most employees will take. Some are likely to become angry and work less hard, increase their absenteeism, or even leave their jobs. Others will work even harder in the hope of eventually obtaining what they want. Because not all employees receive what they think they deserve, managers need to know the conditions under which each reaction is likely to occur.

We argue that when employees react to the way they are treated at work, their motivation to respond in one fashion or another cannot be understood adequately without taking into account two separate notions of fairness. Traditionally the organizational science literature has considered only one way of describing what it means to be fairly treated, namely, the notion of distributive justice. That way of

This paper was written especially for this volume.