# EQUITY THEORY REVISITED: COMMENTS AND ANNOTATED BIBLIOGRAPHY

J. Stacy Adams

and

Sara Freedman

UNIVERSITY OF NORTH CAROLINA
CHAPEL HILL, NORTH CAROLINA

I. Introduction . . . . . 43
II. Comments . . . . . 44
A. The Nature of Inequity "Distress" . . . . . 44
B. Instrumental Uses of Inequity . . . . . 47
C. Dynamic Aspects of Inequity Reduction . . . . . 49
D. Quantification of Inequity . . . . . 52
E. A Concluding Observation . . . . . 55
III. Annotated Bibliography and Index . . . . . 56
A. Index to Bibliography . . . . . 56
B. Annotated Bibliography . . . . . 61

## I. Introduction

In 1973, following twelve years of research on equity by some 170 different authors, Walster *et al.* (1973) pleaded for, and contributed significantly to, the expansion of equity theory into a major social psychological theory. The theory, they argued, had the capacity to explain and to predict a broad spectrum of social behavior.

Our review of the literature bearing directly on equity theory reveals four general phenomena. First, the annual growth rate of publications is an exponentially increasing one showing no sign of asymptoting. Second, the number of *new* authors each year is also increasing exponentially. Third, from an initial research emphasis on social behavior involving monetary exchanges, which

continues today, an increasing amount of work has been directed to other social relationships. As if anticipating the plea by Walster and her associates, researchers with interests as diverse as child development, coalition formation, bargaining, and social protest, among many others, have found the theory predictively useful. Finally, major derivations from the original theory have been tested, with the consequence that it has been corrected, expanded, and made relevant to a wider range of phenomena. A comparison of the papers of Homans (1961) and Adams (1963) with the theoretical and review paper of Walster, Berscheid, and Walster (1973) provides unambiguous testimony to this.

The convergence of these phenomena, which are not necessarily interdependent, suggests that equity theory may, indeed, eventually result in a comprehensive theory of social relationships. The theory in its present form (Walster *et al.*, 1973) strikes us as having a well articulated structure, being parsimoniously elegant, and having an increased predictive range. These are characteristics that bode well for progress, for as Kuhn (1962) and Rosenberg (1972) have noted, the growth of a discipline, scientific or technological, is intimately tied to the existence and quality of theory.

This chapter is divided into two parts. The first offers a few comments on existing theory and research. Notwithstanding the optimism generated by equity theory, there are lacunae that appear to deserve attention. In particular, theoretical and research effort might profitably be directed to the phenomenological experience of inequity, how inequity may be used instrumentally, the analysis of the interactive dynamics of inequity reduction, and the quantification of inequity. The second part consists of an extensive annotated bibliography of theoretical, review, and research papers, published and unpublished, on equity. The annotations for research papers describe the essential contents: tasks, independent and dependent variables, results, and, for populations of possible special interest, subject characteristics. Preceding the bibliography is an index to theoretical and review papers, to independent and dependent variables, and to subjects. The bibliography and index will hopefully constitute a useful reference.

## II. Comments

### A. THE NATURE OF INEQUITY "DISTRESS"

Equity theorists, as other cognitive consistency theorists, posit that a set of conditions, in the case at hand labeled "inequity," results in tension or distress which, in turn, the person experiencing it will be moved to reduce (Adams, 1963, 1965, 1968; Walster *et al.*, 1973). As most frequently used by equity theorists, the conceptual status of distress is that of a hypothetical construct rather than that of an intervening variable (MacCorquodale & Meehl, 1948). The

concept of distress has been typically endowed with existential characteristics and surplus meaning. For example, it is stated to have the characteristics of anger and guilt in inequitable situations. Yet, research on the phenomenological quality of distress produced by inequity is not to be found. Perhaps, as McGuire (1973) has suggested, we are prey to our research methods and models.

Determining empirically the existence and quality of distress is potentially fruitful in testing equity theory. Failing to do so would be equivalent to not having searched for Pluto after Kepler had hypothesized its existence to account for the orbital paths of visible planets. It is not *necessary* to search for equity theory's "Pluto" and to establish its characteristics, except that a central element of the theory would remain untested and that better differentiated predictions might be precluded.

It is implicit in existing research and explicit in various theoretical statements that different initial conditions should produce distress of different quality and, consequently, that different behavior should obtain. At a fairly macro level of prediction it has been stated that advantageous inequity produces feelings of guilt, whereas disadvantageous inequity induces anger (Adams, 1963, 1965; Homans, 1961; Walster *et al.*, 1973). Certainly many findings are consistent with this, but in only a few studies, each concerned with disadvantageous inequity, can one comfortably infer anything about the character of the distress experienced. Notable among these are the studies by Thibaut (1950), Homans (1953), and Ross, Thibaut, and Evenbeck (1971), in which anger is manifest. Direct evidence of guilt feelings among persons who are advantaged is lacking.

The limits of distress are surely not anger and guilt. A range of qualitatively different experiences is probable and with each form of distress a different distribution of equity-restoring responses should be associated. Let us consider a few examples, first, in regard to disadvantageous inequity. A group of female clerks paid the same wage includes a half dozen whose status is greater than that of the others (cf. Homans, 1953). They are angry; they attempt to increase their outcomes and eventually try to obtain union representation. In a similar situation, a single clerk is disadvantaged. She, too, is angry. She confronts her supervisor and takes him personally to task for an invidious action. Anger is present in both cases, but the phenomenological quality is different in each. In the second case self-esteem is wounded, whereas in the first it is not. In the second, a supervisor is personally unjust; in the first, management or management policies are unfair. Two similar conditions of disadvantageous inequity result in qualitatively different subjective experiences, in different responses, and, in this case, different loci of causality and response targets.

In the next example a couple is happily married for several years. The husband has an extramarital affair. A previously equitable intimate social relationship is unbalanced. The wife is, no doubt, distressed. But the character of her distress will be quite different if it is merely a casual, sexual relation than if

the husband has "fallen in love" with another woman. The inequity in the first instance would be less of an affront to the wife's self-esteem, and could be easily reduced by a variety of psychological justifications. The second kind of infidelity would be much more wounding; it strikes directly at the wife's characteristics and self-worth. Reduction of this inequity could not be reduced by psychological means; more likely are "leaving the field," decreasing her contributions to the relationship, and increasing the husband's costs—making his life a lifelong hell.

Or consider this example. A man is cheated in a poker game, in one case by a stranger, in the other by a buddy. The private experience and the inequity-reducing response will vary systematically with the circumstances. The act of the stranger elicits anger and instant demand for restitution, perhaps with appeal to the other players. The anger is simply the anger of unfair transactions. But the experiential quality of being cheated by a friend has strong components of "hurt," bitterness, and betrayal: "He is not my buddy, after all." The overt response, in part because it would be public, would be less obviously emotional than in the first case, less likely to demand restitution, and more likely to result in severing an existing social relationship.

Advantageous inequities may be a product of chance, responsibility, or intention. The last two, although generally treated together in contrast to chance, can be usefully distinguished. One may, for example, be responsible for harm done to another, but without intent. The cause may be negligence, as when one forgets a close friend's birthday. However, one might also deliberately withhold a gift. In the first instance, embarrassed guilt, followed by compensation, are probable. In the second case, guilt might be totally absent since the intentional act presumably had a prior "justification." Or guilt, regret, and retaliation-anxiety (Berscheid *et al.*, 1968) might be felt and lead to equity-restoring behavior, despite prior "justification" for the intended harm done. Having a "reason" to commit the act does not preclude feelings of guilt, but if guilt *is* experienced, considerable cognitive dissonance is predictable. This, in turn, would probably result in additional, but now post-act, justifying behavior.

Chance advantageous inequity has been reviewed recently by Walster *et al.* (1973). Such "inequities" may either not be perceived as inequitable or, alternatively, be so perceived but not be productive of guilt feelings. An accidental overpayment may be viewed as good fortune in a not totally predictable world. Studies by Garrett and Libby (1973) and Leventhal, Weiss, and Long (1969) suggest this may be so, but their data do not allow us to conclude why accidentally overrewarded subjects do not compensate their partners when intentionally overrewarded subjects do. We suspect that chance inequities are perceived, but not as injustices productive of guilt, though perhaps eliciting empathy and compassion for a victim.

The quality of the response to inequity, we propose, is important to the

prediction of how persons will attempt to reduce inequities. This does not imply that the nature of distress experienced by an individual would account for more variance than has been accounted for by the host of variables investigated by equity researchers, but rather that additional variance might be explained.

## B. INSTRUMENTAL USES OF INEQUITY

Research on inequity has focused almost entirely on means of inequity reduction as dependent variables. The model guiding research has taken the production of inequity, in any of several forms, as an antecedent condition. A worker was underpaid, a child was overrewarded, a woman was led to deprive a friend of stamps, one person helped another, so producing inequities that, largely in accord with theory, were reduced by less work, reallocation of reward, voluntary donations, compensation, justification, giving help, and other means. This dominant focus of the research appears to have inhibited discussion of the instrumental uses of inequity, despite Jones' (1964) suggestive work on its strategic uses by ingratiators.

If, as has been demonstrated repeatedly, people incur costs in the service of inequity reduction, one may reasonably conclude that they find inequity distressing. It follows–without needing to assume anything about the perversity of Man's nature!–that persons may perceive inequity as having uses in influencing the behavior of others.

The creation of injustices may serve several instrumental functions. First, an inequity may *signal* to a second party that the focal person perceives the existing social exchange relationship as inequitable. If a person, *P*, is disadvantaged in his relationship with *O*, it does not follow that *O* will perceive the inequity. Indeed, it is likely that *O* will not over a range of low to moderate inequities because the threshold for advantageous inequity is higher than for disadvantageous inequity (Adams, 1965; Jaques, 1961; Weick & Nesset, 1968). Producing an inequity for *O* may signal to him that *P* views the social exchange as unjust. There is a suggestion of such instrumental use of inequity in an experiment by Leventhal and Bergman (1969). Subjects who were moderately underrewarded by their partner tended to redress the inequity by taking some of their partner's money when given an opportunity to reallocate the moneys. Some extremely underrewarded subjects, on the other hand, *increased* the advantaged partner's funds. This behavior is paralleled by an observation at La Guardia Airport: A man alighting from a taxi gave the driver several dollar bills. Having received his change, the passenger gave the driver a dime tip. The driver returned the dime to the man with the comment, "I think you need it more than me, Mister!"

Signaling disadvantageous inequities is not limited to unmistakable overpayment. One of the authors, when subjected to especially poor restaurant service, leaves a three-penny tip to communicate his perception of an unfair

transaction. Leaving no tip might not have the intended effect: The waitress might all too easily attribute the event to forgetfulness or cheapness. Three pennies eliminate the first possibility and make the second highly improbable, for no one is that stingy and there is an intentional quality to leaving three pennies that is not conveyed by, say, a nickel. Somewhat in the same vein, managers occasionally signal displeasure with a subordinate by creating special kinds of disadvantageous inequities. Two cases come to mind. In the first, a manager caused a subordinate manager's carpet (an important status symbol in this company) to be removed to indicate his dissatisfaction with the employer–employee exchange. The action did not have the purpose of redressing an inequity, which could have been accomplished less perversely by a salary decrease or the like, but had the calculated intent of signaling the manager's felt inequity. In the second case, which is far more cruel, inequities are built by systematically withholding normal pay increases and promotions over a period of time in hope of that an employee will resign as the organization's "message" impresses itself. Analogous to this is the snubbing, derogation, and abuse poured on an "undesirable" family that has moved into a residential neighborhood. No doubt comparable tactics are also employed in forcing the severance of intimate relationships that are perceived as so inequitably disadvantageous that they are unreducible.

Quite different purposes may also be served by deliberately created inequities. Equity research findings are impressive witnesses to the proposition that persons suffering the distress of advantageous inequity will behave so as to establish equity. A person could, therefore, use inequity instrumentally for personal gain by creating *obligations* or indebtedness in another person. As Jones (1964) has noted, this may be accomplished by causing another person to perceive that one's inputs or costs are greater or one's outcomes are smaller than previously perceived by the other, or that the other person's inputs or costs are smaller or the other's outcomes are greater than initially perceived. The creation of obligations by these means is part of every salesman's and advertiser's psychotechnology. Indeed, public sensitivity to the technique has made it necessary to promise "No obligation!"

The creation of obligation is not limited to sales, however. It is useful in all social relationships. A wife's tears may artfully produce perceived advantageous inequity in a husband. Feigning greater harm than has been incurred may exaggerate the inequity perceived by a harm-doer and stimulate him to increase compensation. Gifts and compliments to a date or to a client may induce a need to reciprocate in appropriate terms, which in such situations are typically not the same as the terms of manipulation. In *The Godfather* (Puzo, 1969), Don Corleone created an eventually frightful debt merely by granting a favor to Amerigo Bonasera. On a somewhat different familial level, the legendary "Jewish

mother" makes and acts out sacrifices for her children and for the rest of her life plays on their guilt (Greenberg, 1968; Roth, 1969). This type of long-term control is not limited to the western world. Mead (1951) reports that New Guinean men remain in debt to their relatives for years because they were bought a wife at immense cost.

But let the obligator beware! The inequity created must never be greater than the target person's perceived ability to reduce the inequity—to reciprocate, to compensate, to give. The same warning in a somewhat different context is sounded and given empirical support in Walster *et al.* (1973). Failure to observe this bit of practical psychology exposes the obligator to a break in the relationship, to derogation, or to both.

If inequities may be used instrumentally in the control of behavior, it is logical that equity theory has the capacity to be generalized to social influence and social learning. In respect to the latter there is an obvious similarity between the structure of equity theory and of some learning theories. In bare-bone form, the theories postulate antecedent conditions, such as deprivation, that lead to certain states of the organism (e.g., drive), which, in turn, the organism attempts to reduce. Interestingly, equity theory is not limited to antecedent operations like deprivation. Indeed, it predicts that reverse operations—surfeits, if you please—will produce conceptually equivalent organismic states. All this is perhaps too conjectural. Nevertheless, discussion of the theoretical parallels may be productive.

### C. DYNAMIC ASPECTS OF INEQUITY REDUCTION

Theorists postulate that inequities in social exchange are a function of the participants' *perceptions* of their inputs and outcomes (Adams, 1963, 1965; Walster *et al.*, 1973). As a consequence there may be poor obverse symmetry in the inequities experienced by the interacting persons. The logical implication that the partner of a person suffering disadvantageous inequity necessarily experiences advantageous inequity has no psychological validity. Two persons may each experience disadvantageous inequity, for example. Interactors may not only weight their own and the other's inputs and outcomes differently, but the relevance of particular imputs to and outcomes from an exchange may be quite different. Also, even given perfect correspondence of perceptions, the threshold value for perceiving advantageous and disadvantageous inequity may be different.

Assume that two persons, $P$ and $O$, experience advantageous and disadvantageous inequity, respectively, in their relationship. Each feels "distress" and is motivated to act to reduce the inequity and to continue the relationship. In the unlikely limiting case of perfect correspondence of perceptions of inputs and outcomes and of their relevance, if $P$ and $O$ each have five equiprobable practical

and psychological means[1] of reducing their *own* inequity, there are only four chances in one hundred that their preferred means of reduction would be compatible.

It is evident from this simplified illustration that achieving *joint* equity requires coordination–by normative rule or bargaining, for example. Without coordination there is a high probability that new kinds of inequities will be created. Suppose, continuing the example, that *P* opts to increase his inputs, increasing *O*'s outcomes in the process, and that *O* decreases his inputs. The net result may be that disadvantageous inequity has shifted from *O* to *P*. A possible derivative consequence is that *P* will perceive the new inequity as much more distressing than *O* perceived the original one, for his "altruism" was met by "ingratitude."

If some of the simplifying assumptions in our example are removed and more realistic ones are substituted, it becomes evident that achieving joint equity is more complex and difficult. For example, one might assume that *P* and *O* prefer to reduce inequity at least loss of outcomes and most gain, respectively, and that some of the constituent components of outcomes and inputs for the two are different. The first assumption implies that transfer of transferable outcomes (not all are, such as respect) will be resisted if other solutions are available. The second may turn inequity resolution into a game of "Go Fish." In relation to this point, Tornow (1971) has demonstrated that different individuals may perceive identical job elements as inputs *or* as outcomes. The complexity of resolving inequity under such circumstances is obvious. Indeed, one wonders if the pervasive inequities observed in work situations are not partly a function of the fact that, for a given job held by several people (e.g., welders), job evaluation and pricing practices weight job elements identically for each employee. Analogous problems exist in a broader social context: for instance, a courtesy extended by a man to a woman may constitute today either an outcome or a cost for the woman.

From the foregoing comments one may conclude that the joint resolution of inequity may be a complex, difficult, and unstable process. Research on the restoration of equity has resorted almost exclusively to a simple linear causal experimental design: Inequity was produced for *P* under systematically varied conditions and *P*'s responses were observed, *in vitro,* so to speak. Subjects have been isolated from real interaction with another person, when in a wide range of inequities the interactive nature of the relationship may be essential to under-

[1] For *P*: (1) decreasing own and (2) increasing *O*'s outcomes; (3) increasing own and (4) decreasing *O*'s inputs; (5) distorting own and *O*'s inputs and outcomes. The reverse means apply for *O*. Distortion is considered a single means in the present context of matching inequity-reducing mechanisms since they are private. Stated differently, if *P* and *O* both use distortion, the specific nature of the distortions is irrelevant–both will have achieved equity.

standing inequity resolution. This does not, of course, vitiate the research findings, but it leaves us uninformed about the interactive dynamics of inequity-reducing processes and about the coordinating mechanisms required for the attainment of relatively stable, equitable exchange relationships.

Consider an intimate relationship between a man and wife, *P* and *O: P* has very low self-esteem, believes he is dull, is not a good provider, and so on; he thinks his wife is the brightest, most beautiful, admirable woman in the world. *O,* on the other hand, perceives herself as intelligent, attractive, and competent and thinks of *P* as a kind, hardworking, honest, and tender man with whom she has a comfortable relationship. *P* experiences advantageous inequity and feels he does not "deserve" *O; O* perceives no inequity in the relationship and is content. One could reproduce *P*'s inequity in the laboratory and observe the subject increasing his inputs (e.g., taking on an additional task for money) with the object of increasing a "confederate's" outcomes. Fine. But would the finding represent the ultimate resolution of *P*'s felt inequity in the intimate relationship we described? Had *P* and *O* interacted over time, the following might have been observed: (1) *P* increases his inputs and *O*'s outcomes, as in the fictitious experiment; (2) assuming that *O* perceives the connection between *P*'s extra work and a new washer she receives, *O* initially feels somewhat overrewarded but later begins to feel considerable *disadvantageous* inequity as she is left alone at night while *P* works; she complains to *P;* (3) *P* is hurt; he now perceives negative attributes of *O,* "bitching" and ingratitude; he keeps his second job but is less affectionate and becomes occasionally surly.... The rest of the script could be left to the imagination. More usefully, however, could we not *predict* the oscillating process and the ultimate resolution of *P* and *O*'s inequitable relationship by extending equity theory? For example, propositions about the correspondence of *P*'s and *O*'s perceptions of their inputs and outcomes and about coordination mechanisms in reducing inequity would improve the predictability of dynamic processes.

Given the substantial body of knowledge on equity, the time is propitious to expand theory and to adopt more dynamic experimental designs (cf. McGuire, 1973). Dynamic designs employing two subjects (not a subject and a confederate) interacting in an inequitable relationship appear quite fruitful. They permit observation of the *process* of inequity resolution over time as a function of variables manipulated either initially or in the course of interaction. Such experimental designs, though approximating reality better, are difficult to deal with, particularly in regard to making observations and analyzing them. But they are feasible. For example, Stephenson and White (1968), *inter alios,* set up the appropriate conditions for observing the process of inequity reduction but stopped short of doing so.

In this context, Adams recalls an attempt with John Arrowood in 1960 to produce inequity in two equally paid subjects who were seated on each side of a

"partners' desk" and whose related clerical tasks were performed sequentially. Inequity was to be produced, we hoped, by manipulating the demand characteristics of the tasks–high for one subject, low for the other. Among other task characteristics that were varied was the means of adding numbers. The "high input" subject was required to add by head-and-hand (high effort); the "low input" subject used an electric calculator (low effort). Finding, to our chagrin, absolutely no differences in productivity after running several pairs of subjects, we turned clinician and interviewed the subjects in depth. The reason for the inferred absence of inequity, we discovered, was that all subjects viewed using a calculator as demanding skill, if not effort. At this stage of the development of equity theory, we were not prepared to deal with such slippery phenomena, abandoned the experiment, and returned to simpler designs! Equity researchers today are more sensitive to the potential of dynamic design structures, have a better understanding of equity, and should consider picking up where we left off in 1960.

### D. QUANTIFICATION OF INEQUITY

There is a striking absence of attempts to quantify the magnitude of inputs and outcomes, and thus of inequities, in the research literature on equity, despite the implication of a need for quantification in Adams (1965) and, more recently, in Walster *et al.* (1973). Because the boundaries of inquiry have been extended well beyond relationships involving monetary exchanges, quantification appears especially desirable. The earliest studies focused on monetary exchanges principally because outcomes were thereby roughly quantifiable, as were inputs such as productivity. In retrospect this was a tactical error because, by arousing curiosity in counter-intuitive overpayment phenomena, rapid expansion of research into more socially significant areas may have been inhibited. Be that as it may, the point is that as equity theory matures and its relevance extends to the domains of exploitative, intimate, and helping social relationships (see review in Walster *et al.* 1973) and of legal justice (Legant, 1973b; Macaulay & Walster, 1971), more precise measurement of variables and parametric investigations appear desirable.

Equity research to date has aimed principally at establishing the truth value of theoretical propositions and predictions. This was accomplished, first, by inducing inequity through strong manipulation of one objective outcome or input, occasionally both, not by manipulating total, net outcomes or total inputs. Second, the experiments employed factorial designs in which variables were typically manipulated at two or three levels. The first practice established the existence of certain phenomena and validated particular propositions *in general* by statistical tests of differences between means–which is immensely useful, of course. But, more often than not, the amount of variance in the

dependent variables that is accounted for by manipulated input and outcome variables is not impressive. An obvious possible explanation for this is that a manipulation, of an outcome for example, has quite variable effects on the *inequity* experienced by subjects.

In a given situation, a subject will perceive a variety of outcomes, positive and negative,[2] and different subjects may perceive a different set of relevant outcomes and value identical outcomes differently. Indeed, Tornow's (1971) work gives evidence that what is an outcome to one person is evaluated by another as an input and vice versa. There are also intersubject differences in the utility of manipulated outcomes, as is suggested in an experiment by Lawler *et al.* (1968) in which subjects' need for money was correlated with piecework productivity. Obviously, the manipulation of an outcome may produce varying net outcomes among subjects. Similarly, there are undoubtedly intersubject differences in the relevance and evaluation of inputs. Finally, subjects vary in their perceptions of other subjects' outcomes and inputs. The resultant of these experimentally uncontrolled variations is that the magnitude, and perhaps the quality, of experienced inequity varies among subjects. The variation may be treated as error variance, but, in fact, it is not. It is the very substance of equity theory.

Development in any science is contingent, in part, upon precise measurement of variables. 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. Concern for social justice has never been keener and more pervasive, and equity theory has obvious relevance to possible solutions. Yet, it is doubtful that theorists could contribute more than sound general principles to those responsible for social programs. An important reason is that we cannot yet measure with precision the magnitude of existing social injustice, much less the effects of a program proposed to reduce felt injustice (cf. Bauer, 1966). A priority, then, is the development of psychometric technology for the measurement of the components of inequity.

A first step in that direction is to establish a unit of measurement common to both inputs and outcomes. A possible approach is Stevens' magnitude estimation procedure (Stevens, 1955; Galanter, 1962) that has been used, for example, by Ruch and Holmes (1971) to measure pleasant and unpleasant life changes that produced stress. Another possibility are the multivariate paired comparison procedures discussed by Bock and Jones (1968). Ideally, the unit of measurement established would measure equally well a person's own inputs and outcomes and his perceptions of a comparison person's inputs and outcomes.

[2] Negative outcomes are equivalent to "costs" in Homans (1961) and Walster *et al.* [(1973), reprinted in this volume–see the first article].

Whatever the measurement procedure used, it is assumed that what are inputs and what are outcomes would be identified by subjects, not experimenters, for reasons stated earlier.

Given a unit of measurement and a psychometric technology, the next logical move is to determine the additivity functions for inputs and outcomes. It is very unlikely that they are linear. Inputs may add at a greater than linear rate, whereas outcomes probably add at a slower than linear rate if one is to judge from studies on the utility of money by Galanter (personal communication, 1967). It is also possible that particular inputs among themselves, outcomes among themselves, and inputs and outcomes in combination interact in peculiar ways. Attesting to this, Bock and Jones (1968) observed in a group of industrial employees that pay and certain fringe benefits interacted in unique ways. The additivity rules for positive and negative outcomes (gains and costs) may also have peculiarities. Suppose that we were able to measure objectively the positive and negative outcomes of persons *A* and *B* and that we found the resultant net outcomes equal. Suppose further that *A*'s net was a result of positive outcomes of 10 and negative outcomes of 9, whereas *B*'s net resulted from positive and negative outcomes of 2 and 1, respectively. Is there much doubt that the subjective utility of *B*'s net outcome is greater?

Recent work by Einhorn (1971) bears a significant relationship to how subjects aggregate inputs and outcomes. It suggests that persons may use nonlinear, noncompensatory models for combining information. The noncompensatory aspects are particularly germane because compensation is inherent in equity theory, in the sense that outcomes constitute compensation for inputs. It appears quite plausible (and testable) that a person experiencing disadvantageous inequity would perceive that certain forms of compensation from another person were inappropriate and were, therefore, not outcomes. For example, if *P* in an intimate relationship had been insulted by *O*, a gift by the latter might not be seen as an equity-restoring outcome, whereas a verbal apology would. Noncompensatory processes may also occur with respect to the aggregation of positive and negative outcomes, in the sense that the existence of certain negative outcomes nullify positive outcomes, although they are arithmetically smaller. An illustration is the man who declares, "No amount of money and research support would cause me to move to New York" or states "No degree of participative management can substitute for pay!"

To conclude this comment on measurement let us return to the practice of limiting manipulations to two or three levels of a variable. It is parsimonious and may often be necessary in the absence of better than nominal or ordinal measures of the variables. However, there is a risk of losing information if a function is limited to two or three points. Importantly, predictable discontinuities cannot be tested. One might hypothesize, by way of illustration, that the probability of a person's severing an existing relationship is a step function

of the magnitude of inequity experienced, being near zero over low to moderately high magnitudes and then "stepping" to a high probability at high magnitudes. Clearly, a parametric investigation is required to test such a hypothesis. With the exception of a study by Leventhal, Allen, and Kemelgor (1969), we have found no study with a comparable hypothesis and with the appropriate parametric experimental design. It is possible, of course, that more hypotheses like this have been inhibited by the inability to quantify inequity. Only the development of measurement can test *this* hypothesis!

## E. A CONCLUDING OBSERVATION

For reasons discussed in the previous section, equity theory appears weakly prepared to be applied to social problems, although it has great relevance to inequities in economic, legal, interpersonal, and intergroup relationships. This relevance should be made more publicly visible, for it is not foolishly optimistic to believe that public understanding of inequity would make a difference in ameliorating conflicted relationships.

A vast array of social conflicts are perceived fundamentally as problems of inequity. Petroleum consumers feel unjustly abused by producers as scarcer gasoline increases in price; the producers are outraged by the unfair attacks upon them by the public. Women and ethnic minorities voice unjust discriminatory treatment, while other portions of the public claim that remedies for discrimination forces them to bear inequitable costs. Comparably stressed relationships exist between labor and management, the public and government, the public and recipients of welfare, former prison inmates and potential employers, and so on, endlessly. Underlying each instance is a perceived injustice. Frequently, if not invariably, the inequity experienced by one party is a direct result of the other party's first proclaiming an injustice or taking action to eliminate one.

If a person or group, *P*, alleges that another party, *O*, has, however, vaguely or however long ago, caused it harm, *O* instantly accrues some negative outcomes psychologically if *O* does not believe this is so. Thus, *P* has created an inequity for *O* by merely proclaiming its own felt inequity. *P*'s allegation of disadvantageous inequity need not, of course, be real; it may be instead a tactic to achieve gains, as discussed earlier in this chapter. Whether *P*'s claim be true or not, the short-term consequences for *O* are the same. Initially true allegations of injustice by *P* may become false ones employed solely for instrumental purposes. This appears to be the case in many labor negotiations in which periodic claims of inequity by both parties become ritualized and the years between negotiations are spent gathering or shaping statistical evidence of inequities. Quite aside from the objective merit of the claims by the two parties, periodic formal negotiations are an important mode of coordinating inequity-reducing responses in the process of achieving joint equity (*vide supra*).

Other conflicts result from one party's taking action, directly or through a third party, to redress felt inequities. Examples are Blacks boycotting neighborhood stores and pressing for school bussing to achieve racial balance. The effects on some other persons are to reduce some positive outcomes and raise their negative outcomes, psychologically and otherwise. Again, the consequence is that two parties experience disadvantageous inequity.

As society grows, its social components become increasingly differentiated, the number of relationships among components increases (De Greene, 1973; Emery & Trist, 1965), and potential conflict between persons, groups, organizations, and institutions rises. In the circumstances, a consequential opportunity to provide understanding is placed before equity theorists.

## III. Annotated Bibliography and Index

The following sources were employed in compiling the bibliography: the *Science Citation Index* at North Carolina State University; psychology, sociology and other journals not indexed in the above; references cited in equity articles previously identified and references in newly identified ones, iteratively; *Dissertation Abstracts;* APA Convention *Proceedings; Psychological Abstracts;* the authors' file of unpublished papers; and generous colleagues, especially Dr. Enno Schwanenberg, University of Frankfurt, West Germany, for searching the European literature. Every paper identified through these sources was not included in the bibliography in an attempt to limit its length. Excluded, for example, were articles that merely referred to equity theory. Others were excluded because they were judged only moderately relevant. We tried to use good judgment and hope we have in most cases.

The annotation of research papers is limited to brief descriptions of task, subjects, if of special interest, independent and dependent variables, and results. In some instances tasks, variables, and results were either unavailable in detail or so long that only a brief general description is given. The bibliographic items are alphabetically ordered and numbered sequentially. The researcher wishing to identify theoretical or review articles, independent or dependent variables, or subject populations in research papers need only search the index and note the bibliographic reference number.

### A. INDEX TO BIBLIOGRAPHY

#### *1. Theoretical Papers*

Cognitive dissonance, 1, 3
Cognitive inconsistency, 6
Distributive justice, 1, 3, 9, 22, 58, 164, 165
Equity, 1, 3, 9, 59, 60, 61, 83, 134, 150, 151, 152, 167

Relative deprivation, 1, 3, 9, 142
Reward allocation, 83

### 2. *Reviews*

Equity, 4, 5, 47, 48, 75, 100, 119, 126, 147, 151, 154
Justice, 80, 100
Reward allocation, 83
  sex differences in, 84

### 3. *Research Papers*

#### a. *Independent Variables*

Age (or school grade), 68, 69, 81, 138
Aggression, 98
Attitude toward
  job, 144
  pay, 144
Attractiveness of
  job offer, 82
  other, 79
Compensation
  choice of recipient for, 20
  delay of, 21
  sufficiency of, 20, 21
Consequence of ratings made, 98
Delay of gratification, 99
Departure of other, 140
Dependency of other, 132
Disapproval of other, 11
Expense account padding, 130
Fate control, 26
Fate of other, 137
Feedback, 104, 116, 131, 162
Friendship, 17, 115
Harm doing, 19, 113
Helping, responsibility for, 129
Help received, 50, 51, 159
Individual differences, 93
Inputs
  alleged by other, 23
  of other, 137
  own, 114
  relative, of *S*s, 23, 27, 41, 49, 64, 68, 70, 71, 72, 79, 81, 82, 86, 88, 89, 90, 91, 92, 95, 106, 107, 109, 110, 111, 122, 123, 136, 139, 157, 160
  requirement, 38
Interaction, anticipation of, 113
Knowledge of
  behavior, 99
  expectations, 115
  outcomes, 91, 128
Liking, 157

Machiavellianism, 23
Motivation, 76, 109, 132, 137
Nationality, 43, 111, 123
Need for approval, 23
Outcomes, relative, 141
Pay
  commission rate, 130
  equitable re
    other's inputs, 64, 139, 155
    other's outcomes, 40, 53, 101, 102, 103, 129, 139, 155, 157
    own inputs, 2, 7, 8, 10, 14, 31, 35, 36, 39, 45, 46, 65, 66, 74, 76, 139, 155, 161
    own outcomes, 139, 155
    standard, 12, 30, 54, 55, 62, 77, 85, 99, 114, 127, 140, 146, 149, 156, 158, 160
  expected, 67, 149
  experience, 12, 67
  fairness, 67
  hourly, 2, 8, 10, 14, 30, 35, 39, 45, 54, 55, 62, 65, 66, 74, 127, 146, 155, 156, 158, 160
  merit increase, 44
  overpay re
    other's inputs, 11, 42, 64, 139, 155
    other's outcomes, 40, 53, 55, 62, 101, 102, 103, 129, 135, 139, 155, 157
    own inputs, 2, 7, 8, 10, 13, 14, 35, 36, 39, 45, 46, 65, 74, 76, 114, 139, 155, 158, 161
    own outcomes, 32, 139, 155
    standard, 12, 30, 34, 43, 54, 55, 85, 94, 97, 99, 104, 114, 127, 140, 146, 149, 156, 158, 160
  piece rate, 2, 7, 8, 12, 36, 40, 46, 53, 55, 62, 76, 77, 114, 127, 161
  reduced rate, 7, 45
  timing of, 34
  underpay re
    other's inputs, 42, 57, 64, 139, 155
    other's outcomes, 40, 53, 101, 102, 103, 129, 135, 139, 155, 157
    own inputs, 31, 35, 66, 139, 155
    own outcomes, 32, 139, 155
    standard, 12, 30, 34, 43, 54, 55, 77, 85, 87, 94, 97, 104, 114, 127, 140, 146, 149, 156
PD game payoff structure, 107
Performance, 18, 131
  expected, 18, 95
  in prior task, 17, 138
  of other, 26, 137
  visibility of, 14
Power, 26
Privilege, relative, 141
Protestant Ethic Scale score, 41
Qualifications, 114
  perception of, 39
Qualification test, reliability of, 10
Reciprocate, ability to, 52, 116
Reinforcement, verbal, 34
Retaliation, expectation of, 19
Reward
  intentionality of, 42, 94

source of, 96
sufficiency of, 69, 71
transfers of, 24
Security, job, 7, 36
Sex, 17, 23, 26, 34, 40, 49, 52, 64, 68, 69, 86, 88, 92, 101, 102, 103, 109, 111, 128, 143, 148, 162
Social distance, 136
Status, 27, 57
socio-economic, 62
threat to, 87
Success
control of, 28
criteria for, 28
Task
demand characteristics of, 45, 46, 63
dull, 12, 54
ego-oriented, 25, 66, 158
interesting, 12, 54
objective of, 49, 82, 91, 92, 95
perception of, 145
simple, 66
social structure of, 55, 140
success in, 25
task-oriented, 158
Time period, 26, 76, 138
Work role, 163

*b. Dependent variables*
Allocation (*also see* Reallocation)
of grade, 95
reasons for, 26
responsibility for, 25
of reward, 17, 26, 28, 41, 42, 49, 64, 68, 69, 70, 71, 72, 81, 82, 86, 88, 89, 91, 92, 93, 97, 102, 103, 109, 110, 111, 136
Allocator, choice of, 72
Attitude toward
task, 43, 77
union, 4
work, 37, 114
Bargaining
duration, 115
outcomes, 115
Cheating, 141
Choice of response in game, 11, 38, 106, 122, 123, 128, 162
Coalition formation, 120
Compensation given, 20, 21, 113
Competitiveness, 138
Cooperation, 107, 135
Deservingness, 143
Discipline, severity of, 130
Distribution of reward (see "allocation")

Donation, 99
Effort, 153
Equity, preferences for different types, 148, 155
Evaluation of
  fairness, 24, 157
  other, 19, 23, 24, 42, 89, 90, 97, 98, 113, 129, 143, 162
  performance, 79
  task, 30, 65, 153, 157
Help
  given, 33, 50, 51, 159
  sought, 52, 116
Inequity, perception of, 13, 98, 145
Inputs, alleged by S, 23
Labor efficiency, 27
Mood Adjective Check List, responses to, 149
Noncooperation, 101
Pay
  comparisons, 4, 121
  increases, 16
  perceptions of, 43, 73
Performance, perception of, 86, 88, 89
Productivity (also production, etc.), 2, 7, 8, 10, 12, 14, 30, 32, 35, 36, 39, 40, 43, 45, 46, 53, 54, 55, 62, 65, 66, 74, 76, 77, 114, 127, 129, 137, 138, 139, 146, 156, 158, 160, 161
Punishment, use of, 131, 132
Qualifications, perception of, 76
Quality of work, 2, 7, 10, 12, 30, 35, 36, 40, 45, 46, 55, 62, 65, 66, 74, 76, 77, 114, 146, 158, 160, 161
Reallocation of reward, 33, 85, 87, 94, 135
Reward (*also see* Allocation and Reallocation)
  acceptance of, 96
  choice of, 156
Satisfaction with
  job, 57, 67, 127, 163
  pay, 44, 57, 121
Self-image, 13
Task, exchange of, 63
Tension, 85
Time worked, 14, 34, 140
Turnover, 4, 31, 37, 125, 144, 146
Volunteering, 104

*c. Subject Populations**

Age (school grade)
  1–5 (preschool), 32, 68, 69, 86, 88, 92, 102, 103, 112
  6–12 (grades 1–6), 17, 24, 62, 69, 81, 92, 97, 99, 112, 115, 131, 138, 141
  13–18 (grades 7–12), 18, 19, 30, 42, 138
Consumers, 96

*Only subject populations that may be of particular interest are identified.

Employees
business and industry, 4, 27, 31, 44, 57, 67, 73, 121, 144
public institutions, 37, 125
Nationality
Austrian, 110, 111
Canadian, 121
Dutch, 160
English, 140, 141
Italian, 43, 123
Schizophrenic, 139

## B. ANNOTATED BIBLIOGRAPHY

1. Adams, J.S. Toward an understanding of inequity. *Journal of Abnormal and Social Psychology,* 1963, **67,** 422–436. (a)

   Presents general theory of inequity based on social exchange, social comparison, and cognitive dissonance theories.

2. Adams, J.S. Wage inequities, productivity and work quality. *Industrial Relations,* 1963, **3,** 9–16. (b)

   *Task:* Public interviewing in 3 experiments. *IV:* (1) *S*s paid at hourly or piece rate; (2) *S*s induced to feel qualified or unqualified for pay rate. *DV:* (1) Productivity; (2) work quality. *Results:* Unqualified hourly paid Ss' productivity was higher than qualified hourly paid Ss'. Unqualified piece rate *Ss'* work quality was greater and their productivity was lower than the qualified piece rate *S*s'.

3. Adams, J.S. Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology,* Vol. 2. New York: Academic Press, 1965. Pp. 267–299.

   Extends equity theory first presented in Adams (1963a). Social exchange, relative deprivation, distributive justice, and other related theories are discussed.

4. Adams, J.S. The effects of pay inequities. Paper presented at the McKinsey Seminar on Managerial Motivation and Compensation, Tarrytown, New York, 1967.

   Reviews effects of pay inequities and presents data on pay comparisons made by large samples of industrial employees.

5. Adams, J.S. Effects of overpayment: Two comments on Lawler's paper. *Journal of Personality and Social Psychology,* 1968, **10,** 315–316. (a)

   Critique of Lawler (1968a) paper. *Vide infra.*

6. Adams, J.S. A framework for the study of modes of resolving inconsistency. In R.P. Abelson, E. Aronson, W.J. McGuire, T.M. Newcomb, M.J. Rosenberg, & P.H. Tannenbaum (Eds.), *Theories of cognitive consistency: A sourcebook.* Chicago: Rand McNally, 1968. Pp. 655–660. (b)

   Presents a general conceptual scheme for the development and analysis of cognitive consistency theories and research, including equity theory.

7. Adams, J.S., & Jacobsen, P.R. Effects of wage inequities on work quality. *Journal of Abnormal and Social Psychology*, 1964, **69**, 19–25.

   *Task:* Proofreading galleys, piece rate pay. *IV:* (1) Male *S*s paid 30¢/page and either told they were qualified or unqualified for task, or told they were unqualified and thus paid at reduced rate of 20¢/page; (2) *S*s told work might be available for several months or that it would not. *DV:* (1) Productivity; (2) work quality. *Results:* Unqualified *S*s paid 30¢/page produced less but higher quality work than qualified *S*s paid 30¢/page and unqualified *S*s paid 20¢/page reduced rate. The latter two groups did not differ.

8. Adams, J.S., & Rosenbaum, W.B. The relationship of worker productivity to cognitive dissonance about wage inequities. *Journal of Applied Psychology*, 1962, **46**, 161–164.

   *Task:* Public interviewing. *IV:* (1) In 2 experiments, *S*s told they were qualified or unqualified for interviewing; (2) hourly or piece rate pay. *DV:* Productivity. *Results:* Unqualified *S*s produced more than qualified *S*s when paid hourly. Unqualified piece rate *S*s produced less than qualified piece rate *S*s.

9. Anderson, B., Berger, J., Zelditch, M., & Cohen, B.P. Reactions to inequity. *Acta Sociologica*, 1969, **12**, 1–12.

   Theoretical discussion of relative deprivation, distributive justice, and equity from sociological viewpoint.

10. Anderson, B., & Shelly, R.K. Reactions to inequity, II: A replication of the Adams experiment and a theoretical reformulation. *Acta Sociologica*, 1970, **13**, 1–10.

    *Task:* Proofreading, hourly pay. *IV:* (1) *S*s told they were qualified or underqualified for task; (2) underqualified *S*s were told either than qualification test usually or always predicts proofreading success. *DV:* (1) Productivity; (2) quality of work. *Results:* No differences found between experimental groups.

11. Anderson, B., & Shelly, R.K. Reactions to inequity, III: Inequity and social influence. *Acta Sociologica*, 1971, **14**, 236–244.

    Fails to obtain empirical support for the hypothesis that inequity dissonance will occur only among overrewarded Ss if they receive or expect to receive signs of disapproval from an authority figure or equitably rewarded group members.

12. Andrews, I.R. Wage inequity and job performance: An experimental study. *Journal of Applied Psychology*, 1967, **51**, 39–45.

    *Task:* Interviewing or data checking, piece rate pay. *IV:* (1) Interesting (interviewing) or dull (data checking) task; (2) underpay (15¢), equitable (20¢) pay, or overpay (30¢); (3) *S*'s previous wage experience. *DV:* (1) Productivity; (2) work quality. *Results:* Underpaid *S*s produced more but at a lower quality level than equitably paid *S*s. Overpaid *S*s produced less but at higher quality than equitably paid Ss. *S*s' previous wage experience was positively related to productivity and negatively to quality within piece rate groups. No effect of task interest.

13. Andrews, I.R., & Valenzi, E.R. Overpay inequity or self-image as a worker: A critical examination of an experimental induction procedure. *Organizational Behavior and Human Performance*, 1970, **5**, 266–276.

    *Task:* Using role projection method, *S*s watched an induction procedure in which a job applicant was unqualified for the pay he would receive. *DV: S*s' responses to questions about how they would feel if they were the applicant. *Results:* 59 of the 80 Ss responded in terms of their self-image. No *S*s responded in terms of inequity. Ratings of structured alternatives indicated *S*s felt self-image responses were most plausible and wage inequity responses least plausible.

14. Arrowood, A.J. Some effects on productivity of justified and unjustified levels of reward under public and private conditions. Unpublished doctoral dissertation, University of Minnesota, 1961.

    *Task:* Public interviewing; pay for 3 hours given before task performance. *IV:* (1) Pay too high or about right relative to qualifications; (2) *S*'s work either returned or not to payer. *DV:* Productivity. *Results:* From equity theory, *S*s who perceived pay too high relative to their qualifications more productive than those whose pay was about right. From reinforcement theory, *S*s whose work was available to source of pay more productive than *S*s whose work was not available to source.

15. Austin, W., & Susmilch, C. Comment on Lane and Messé's confusing clarification of equity theory. *Journal of Personality and Social Psychology*, 1974, in press.

    Attempt to clarify the conceptual status and definition of comparison "Other" in equity theory. Critique of Lane and Messé (1972). *Vide infra.*

16. Bass, B.M. Ability, values, and concepts of equitable salary increases in exercise compensation. *Journal of Applied Psychology*, 1968, **52**, 299–303.

    Graduate business students asked to recommend annual salary increases for 10 hypothetical engineers with varying characteristics. *Results: S*s with lower intelligence and achievement who had strong social and religious values and who were generous with company money for other purposes made higher salary recommendations.

17. Benton, A.A. Productivity, distributive justice, and bargaining among children. *Journal of Personality and Social Psychology*, 1971, **18**, 68–78.

    *Task:* Following preliminary tasks, boys in pairs and girls in pairs bargained over division of reward. *IV:* (1) *S* passed or failed reading test; (2) pairs were friends, non-friends, neutral; (3) sex of pair. *DV:* Allocation of reward. *Results:* Girls prefer equality norm, but adopt equity norm if equal division impossible. Boys prefer equity norm, but this may be overridden by competitive achievement motivation.

18. Berman, S.M. An investigation of the effects of inequitable rewards on student performance and expected performance. Unpublished doctoral dissertation, University of Delaware, 1969.

    *S*s working in pairs were overrewarded or underrewarded; *S*s then worked individually. *S*s' expected performance was related to inequity, actual performance was not.

19. Berscheid, E., Boye, D., & Walster, E. Retaliation as a means of restoring equity. *Journal of Personality and Social Psychology*, 1968, **10**, 370–376.

*Task:* *Ss* allegedly participated as "trainers," administering shocks, or "observers" in study of shock on verbal performance of confederate peer ("victim"). *IV:* (1) Harm-doer (exp. gp.) or observer (control gp.); (2) expect or do not expect victim to be able to administer shock. *DV:* *Ss*' derogation of victim. *Results:* Harm-doers derogate victim less when they expect retaliation than when they do not, but observers respond in reverse manner.

20. Berscheid, E., & Walster, E. When does a harmdoer compensate a victim? *Journal of Personality and Social Psychology*, 1967, **6**, 435–441.

*Task:* Female *Ss* were led in the course of a game to deprive a fellow church member (victim) of green stamp books. In a second game they had a chance to compensate the victim. *IV:* (1) Insufficient, adequate, or excessive compensation available to *Ss*; (2) chance to award compensation to victim (exp. gp.) or to crippled child (control gp.). *DV:* Choice to compensate. *Results:* Experimental *Ss* more likely to compensate victim if available compensation was adequate than if the compensation was insufficient or excessive. This not found among control *Ss*.

21. Berscheid, E., Walster, E., & Barclay, A. Effect of time on tendency to compensate a victim. *Psychological Reports*, 1969, **25**, 431–436.

*Task:* *Ss* played question-answering game in which they deprived their partner of green stamp books. In second game, they could give bonus to partner. *IV:* (1) *S* able to inadequately, adequately, or overcompensate their partner (victim); (2) *S* required to choose to compensate immediately or after a delay. *DV:* Whether or not *Ss* compensated victims. *Results:* *Ss* in the immediate condition compensated the victim regardless of the adequacy of compensation. *Ss* in the delay condition were more likely to compensate in the adequate compensation condition than *Ss* in the inadequate and excessive compensation conditions.

22. Blau, P.M. *Exchange and power in social life.* New York: Wiley, 1964.

The concepts of justice, fair exchange, and distributive justice are discussed on pp. 151–160 and elsewhere.

23. Blumstein, P.W., & Weinstein, E.A. The redress of distributive injustice. *American Journal of Sociology*, 1969, **74**, 408–418.

*Task:* *Ss* and confederate partners wrote questionnaire items. *IV:* (1) Partner did large or small proportion of work; (2) *S*'s partner claimed to have done 1/3 or 2/3 of the work; (3) *Ss*' scores on Machiavellianism; (4) *Ss*' scores on Need for Approval; (5) *Ss*' sex. *DV:* (1) The amount of work claimed by *S* on a second set of items; (2) *S*'s evaluation of partner. *Results:* *Ss* who benefited from the partner's claim redressed the injustice more than *Ss* who were victims. Females and *Ss* high on Machiavellianism and Need for Approval did not redress in reward allocation when they were victims.

24. Brickman, P., & Bryan, J.H. Evaluation of theft, charity, and disinterested transfers that increase or decrease equality. *Journal of Personality and Social Psychology*, 1974, in press.

*Task:* 5th grade girls viewed movie of 7th grade girl who surreptitiously modifies distribution of rewards in 4-person group. *IV:* (1) Girl in movie increases or decreases equality among group members by her transfers; (2) girl in movie either increases her own resources (theft), decreases her own resources (charity), or changes the rewards of 2 other group members in disinterested way. *DV:* (1) *Ss*' attitudes toward the 7th grade girl; (2) *Ss*' ratings of fairness of final distribution. *Results:* Charity transfers rated more favorably if they increased equality. This was not true of thefts. Disinterested changes in rewards of two other members were rated more favorably if they increased equality than if they decreased equality.

25. Burnstein, E., & Wolosin, R.J. The development of status distinctions under conditions of inequity. *Journal of Experimental Social Psychology*, 1968, 4, 415–430.

*Task:* Pairs of *Ss* worked on a group reaction-time task in which each *S* initially had equal responsibility for joint outcome. *IV:* (1) *Ss* told performance reflected important or unimportant skill, or was chance; (2) one *S* 50% successful, other 50%, 70%, or 90%. *DV: Ss*' decisions on how much responsibility each member should have in determination of joint outcomes. *Results: Ss* divided responsibility for maximum joint outcomes. Redistribution of responsibility slower when performance difference between *Ss* was smaller and task was important.

26. Callahan, C.M., & Messé, L.A. Conditions affecting attempts to convert fate control to behavior control. *Journal of Experimental Social Psychology*, 1973, 9, 481–490.

*Task:* Same sex pairs of one *S* and one confederate worked for 3 periods, respectively, as supervisor and worker in simulated industrial situation in which worker addressed envelopes and supervisor paid him according to his assessed performance. *IV:* (1) Sex of pairs; (2) high or low fate control of *S;* (3) worker had counterpower or no counterpower in affecting *S*'s pay; (4) worker performance (low in 3 periods vs. low in first and medium in last 2); (5) work period. *DV:* (1) *S*'s pay allocation to worker; (2) *S*'s reasons for allocation. *Results:* Males (not females) paid workers most when they had high fate control and worker had counterpower. *Ss* moved by equity considerations when worker had no counterpower. Males more concerned with behavior control, females with equity.

27. Clark, J.V. A preliminary investigation of some unconscious assumptions affecting labor efficiency in 8 supermarkets. Unpublished doctoral dissertation, Harvard University, 1958.

Studied supermarket checkout counters manned by "ringer" (cashier) and "bundler." *Results:* Inequities resulting from bundler (low status) having higher inputs than ringer (higher status) were inversely related to labor efficiency.

28. Cohen, R.L. Mastery and justice in laboratory dyads: A revision and extension of equity theory. *Journal of Personality and Social Psychology*, 1974, 29, 464–474.

*Task:* Pairs of *Ss* jointly performed group reaction time task; success rate for one *S* was 80%, 50% for other; the pair allegedly competing against other groups. *IV:* (1) Success rate wholly under voluntary control of *Ss* or partially under uncontrollable factor; (2) high, medium, low criterion of group success to beat other groups. *DV:* Distribution of bonus reward. *Results:* Inferior members (50%) in nonvoluntary condition were given more of bonus reward than in voluntary condition. Also given more as criterion of group success increased.

29. Cook, K.S. An experimental study of the activation of equity processes. Unpublished doctoral dissertation, Stanford University, 1973.

    Presents a theory specifying the conditions and processes leading to activation of equity processes. Data on questionnaire and allocation responses support equity theory.

30. Cook, T.D. Temporal mechanisms mediating attitude change after underpayment and overpayment. *Journal of Personality*, 1969, 37, 618–635.

    *Task:* Proofreading, hourly pay. *IV:* *S*s underpaid, equitably paid, or overpaid in relation to expected pay. *DV:* (1) Productivity; (2) work quality; (3) attitudes toward task. *Results:* Perceived and actual performance higher among overpaid *S*s than other *S*s. A time and payment interaction found for attitude toward the task. Underpaid *S*s initially liking task material more, then disliking it, and finally liking it as much as equitably paid *S*s.

31. Dansereau, F., Cashman, J., & Graen, G. Instrumentality theory and equity theory as complementary approaches in predicting the relationship of leadership and turnover among managers. *Organizational Behavior and Human Performance*, 1973, **10**, 184–200.

    In a longitudinal correlational study of 261 salaried managers, high performers who were not differentially compensated in comparison to low performers were much more likely than average to leave the organization. In contrast, when performance and compensation were contingently related, managers were more likely than average to stay.

32. Day, C.R. Some consequences of increased reward following establishment of output-reward expectation level. Unpublished master's thesis, Duke University, 1961.

    *Task:* Children pushed plunger for M & M candies. Number of candies (between 1 and 6) was dependent on pressure exerted on plunger. After responses stabilized, 25 candies received by *S* on last 5 trials. *DV:* Pressure exerted on overrewarded trials. *Results:* *S*s increased pressure when overrewarded.

33. Day, G.J. The behavioral effects of wage inequity in work groups. Unpublished doctoral dissertation, Indiana University, 1961.

    Varying degrees of inequity were created in 3-person work groups. Some equity theory predictions failed, but production help and pay reallocation within groups were significant means of reducing inequity; the use of these means increased as inequity increased.

34. Deci, E.L. Intrinsic motivation, extrinsic reinforcement, and inequity. *Journal of Personality and Social Psychology*, 1972, **22**, 113–120.

    *Task:* *S*s worked on puzzles, after which they were free to do several things, including work on puzzle. *IV:* (1) Verbal or no verbal reinforcement for puzzle solving task; (2) no payment for task vs. overpayment at the end of the task vs. overpayment after the free-choice period following the task; (3) sex. *DV:* Time spent working on puzzles during free-choice period. *Results:* *S*s worked on puzzles more during free time when paid before free-choice period and less when paid after the period than *S*s who were not paid.

35. Evan, W.M., & Simmons, R.G. Organizational effects of inequitable rewards: Two experiments in status inconsistency. *Administrative Science Quarterly*, 1969, **14**, 224–237.

*Task:* In 2 experiments, *S* proofread galleys in publisher's premises, hourly pay. *IV:* Equitably paid, overpaid, or underpaid in relation to induced competence or to induced authority. *DV:* (1) Productivity; (2) work quality. *Results:* No differential effects of pay-authority discrepancies. Pay-competence discrepancies resulted in underpaid *S*s producing more, but poorest quality work.

36. Evans, M.G., & Molinari, L. Equity, piece rate overpayment, and job security: Some effects on performance. *Journal of Applied Psychology*, 1970, **54**, 105–114.

*Task:* Interviewing, piece rate pay. *IV:* (1) High or low job security; (2) *S*s told they were qualified or underqualified for pay rate. *DV:* (1) Productivity; (2) quality of work. *Results:* There was a trend among unqualified (overpaid) *S*s in both secure and insecure conditions to produce better quality work than qualified *S*s. Security and qualification interacted such that productivity was greater among qualified secure *S*s than unqualified secure ones, whereas productivity was greater among unqualified insecure *S*s than qualified insecure ones.

37. Finn, R.H., & Lee, S.M. Salary equity: Its determination, analysis, and correlates. *Journal of Applied Psychology*, 1972, **56**, 283–292.

Professional and scientific employees in Federal Public Health Service answered questionnaire measuring demographic and work history information, perception of job inputs, salary treatment, and job-related attitudes. *S*s' immediate superiors also completed questionnaire. *Results:* *S*s in inequitably treated subsample displayed less favorable job-related attitudes and had a higher propensity to quit their job than *S*s in equitably treated subsample. Multiple-regression model predicted equitable salaries ($R = .933$).

38. Flynn, M.S. Power imbalance, justice, and exchange in a minimal social situation. Unpublished doctoral dissertation, University of North Carolina at Chapel Hill, 1972.

*Task:* Female *S*s worked with fictitious partner on button pushing task. *S* and partner must agree to work one of three buttons which gave *S* equal money reward as partner but required unequal work. *IV:* One of three different sets of ratios of work requirements for *S* and partner. *DV:* Choices of button. *Results:* *S*s maximized outcomes at cost of violating equity and maximizing dependency of partner.

39. Friedman, A., & Goodman, P. Wage inequity, self-qualifications, and productivity. *Organizational Behavior and Human Performance*, 1967, **2**, 406–417.

*Task:* Interviewing, hourly pay of $3.50. *IV:* (1) *S*s told they were qualified or underqualified; (2) *S*'s perceptions of his qualifications. *DV:* Productivity. *Results:* The qualification induction did not affect productivity. When *S*s were classified according to their perceived qualifications, however, qualified *S*s produced more than unqualified *S*s.

40. Garland, H. The effects of piece rate underpayment and overpayment on job performance: A test of equity theory with a new induction procedure. Unpublished manuscript, Cornell University, 1972.

*Task:* Proofreading material containing errors, piece rate pay. *IV:* (1) *S*s hired at 15¢, 30¢, or 60¢/page rate and told by a confederate worker that his pay was 30¢/page; (2) sex. *DV:* (1) Productivity; (2) work quality. *Results:* Underpaid males and females produced more work whereas when overpaid they produced less work than equitably paid *S*s. Overpaid males produced better quality work but poorer quality work if underpaid. Underpaid females did poorer work than equitably paid females, but the overpaid females' work was not better than the latter's.

41. Garrett, J.B. Effects of Protestant ethic endorsement upon equity behavior. Paper presented at the meeting of the American Psychological Association, Montreal, August, 1973.

*Task:* *S*s asked to allocate $15.40 among 4 hypothetical work group members varying systematically in effort and performance. *IV:* (1) High or low *S* scores on Mirels-Garrett Protestant Ethic Scale; (2) performance and effort description of member: Hi-hi, hi-lo, lo-hi, lo-lo. *DV:* Amount of money allocated to each of 4 work group members. *Results:* *S*s with high Protestant Ethic Scale scores used equity as a basis of reward allocation more than low scorers.

42. Garrett, J.B., & Libby, W.L., Jr. Role of intentionality in mediating responses to inequity in the dyad. *Journal of Personality and Social Psychology,* 1973, **28,** 21–27.

*Task:* 9th graders performed proofreading task with hypothetical partner who allocated reward after task. *S* then allowed to allocate bonus. *IV:* (1) *S*s told reward allocation by partner was chance or intentional; (2) after performing equally with partner, *S* was overrewarded or underrewarded. *DV:* (1) *S*'s allocation of bonus; (2) *S*'s rating of partner (good-bad, fair-unfair). *Results:* *S*s distributed bonus to restore equity when partner's initial allocation was intentional. Bonus allocated about equally, ignoring the first reward allocation, when partner's initial allocation was by chance.

43. Gergen, K.J., Morse, S.J., & Bode, K. Overpaid or overworked? Cognitive and behavioral reactions to inequitable payment. Unpublished manuscript, Swarthmore College, 1971.

*Task:* American and Italian *S*s attempted to identify words (English or Italian) transmitted with noise over a speaker. *IV:* (1) *S*s told they would receive same pay as, 40% or 80% more, or 40% less than they felt was correct for task. *DV:* (1) Performance; (2) evaluation of task difficulty; (3) perceived fair rate of pay for task. *Results:* Overpaid *S*s' evaluation of task difficulty and fair rate of pay increased compared to equitably paid *S*s. No systematic effects of pay on task performance.

44. Giles, B.A., & Barrett, G.V. Utility of merit increases. *Journal of Applied Psychology,* 1971, **55,** 103–109.

Sixty-four professional employees in electronics company responded to questionnaire on merit increases and satisfaction. *Results:* Satisfaction with pay increases was better predicted by the ratio of merit increase to perceived equitable merit increase than by merit increase proper, percentage merit increase, and salary plus increase.

45. Goodman, P.S., & Friedman, A. An examination of the effect of wage inequity in the hourly condition. *Organizational Behavior and Human Performance,* 1968, **3,** 340–352.

    Task: Questionnaire scoring, hourly pay. *IV:* Six pay conditions: (1) *S*s overpaid with emphasis on quantity of questionnaires scored. (2) overpaid with quality emphasis. (3) overpaid *S*s with quantity emphasis told the production rate of qualified scorers. (4) *S*s paid at reduced rate because of lack of qualifications. (5) *S*s paid at reduced rate because of lack of qualifications and told the production rate of people with similar qualifications. (6) *S*s told they were qualified and paid equitably. *DV:* (1) Productivity; (2) work quality. *Results:* Overpaid *S*s produced more than equitably paid *S*s. Emphasis on quantity or quality affects *S*s' emphasis during performance. Known production rates reduced the production variance of *S*s.

46. Goodman, P.S., & Friedman, A. An examination of quantity and quality of performance under conditions of overpayment in piece rate. *Organizational Behavior and Human Performance,* 1969, **4,** 365–374.

    *Task:* Questionnaire scoring, piece rate pay. *IV:* (1) *S*s told they were qualified or underqualified for task; (2) *E*'s emphasis on quality or quantity. *DV:* (1) Productivity; (2) work quality. *Results:* Underqualified *S*s reduced inequity by increasing productivity or quality depending on *E*'s emphasis. Production differences between quality and quantity emphasis conditions greater for underqualified than for qualified *S*s.

47. Goodman, P.S., & Friedman, A. An examination of Adams' theory of inequity. *Administrative Science Quarterly,* 1971, **16,** 271–288.

    Discusses equity theory and research and effects of inequity on performance and allocation of rewards.

48. Gordon, M.E. An evaluation of Jaques' studies of pay in the light of current compensation research. *Personnel Psychology,* 1969, **22,** 369–389.

    Critique of Jaques (1961). Reviews research on span of discretion and responsibility in relation to equitable compensation.

49. Greenberg, J., & Leventhal, G.S. Violating equity to prevent group failure. *Proceedings, 81st Annual Convention,* APA, 1973, 215–216.

    *Task: S*s considered a business case in which two 2-man groups working on special projects were described. *S*s were asked to recommend money bonus for each worker. *IV:* (1) One worker in each group had above average performance, the other below average; (2) one group, it was stated, would definitely fail if it continued to perform as it had, while the other group would easily succeed; (3) half the *S*s were instructed to award bonus on basis of performance, the others so as to motivate workers; (4) sex. *DV:* Bonus allocations. *Results: S*s instructed to motivate workers gave greater bonuses to workers of failing groups than did *S*s instructed to maintain equity. This resulted also in higher bonuses for failing than succeeding groups. *S*s instructed to reward for performance rewarded succeeding groups more than failing ones. Better performing members within groups were allocated larger bonuses.

50. Greenberg, M.S., Block, M.W., & Silverman, M.A. Determinants of helping behavior: Person's rewards versus other's costs. *Journal of Personality*, 1971, **39**, 79–93.

*Task:* *S* and confederate role-played disabled workers performing task in which *S* required help. In second task confederate was potential recipient of help from *S*. *IV:* Confederate's help in first task resulted in high extra reward for *S* at low cost to confederate, low extra reward for *S* at moderate cost to confederate, or no extra reward for *S* at high cost to confederate. *DV:* Amount of help *S* gave confederate on second task. *Results:* *S*s were more likely to help if confederate's previous help had resulted in high or moderate rewards for *S* than if help resulted in low or no rewards.

51. Greenberg, M.S., & Frisch, D.M. Effect of intentionality on willingness to reciprocate a favor. *Journal of Experimental Social Psychology*, 1972, **8**, 99–111.

*Task:* Male *S*s were required to complete a sales forecast for which they needed help from a fictitious other; then *S*s performed personnel task for which help was requested by other. *IV:* (1) Help given by other was deliberate or accidental; (2) much or little help given by other. *DV:* Help given by *S* on second task. *Results:* More help given in deliberate than accidental condition. More help given in high help than low help condition.

52. Greenberg, M.S., & Shapiro, S.P. Indebtedness: An adverse aspect of asking for and receiving help. *Sociometry*, 1971, **34**, 290–301.

*Task:* *S* with his arm in sling and confederate with an eye patch and sunglasses were asked to first assemble boxes, then to proofread copy for errors. *IV:* (1) *S* anticipated he would or would not be able to reciprocate help; (2) sex. *DV:* *S*s willingness to ask for help from confederate. *Results:* *S*s unable to reciprocate help less likely to ask for it from confederate than *S*s who anticipated they could help confederate on second task.

53. Haccoun, R.R., Wood, M.T., & Smith, J.E. Explicit versus abstract referents in equity inductions and reversals: A new procedure. *Proceedings, 81st Annual Convention*, APA, 1973, 565–566.

In a 3-stage experiment with piece rate pay, *S*s working with a confederate were first induced to believe their rate was the same, greater, or lower than confederate's. *E* then equalized pay. *Results:* Underpaid *S*s produced more. Productivity was greater when confederate's pay rate was changed to equal *S*'s than when *S*'s was changed to equal confederate's.

54. Heslin, R., & Blake, B. Performance as a function of payment, commitment, and task interest. *Psychonomic Science*, 1969, **15**, 323–324.

*Task:* *S*s signed up for task for which they would be paid by the hour. *IV:* (1) Interesting (puzzle) vs. boring task (packing); (2) underpayment, usual payment, or overpayment; (3) high vs. low commitment. *DV:* Productivity. *Results:* Committed *S*s produced more than noncommitted *S*s.

55. Hinton, B.L. The experimental extension of equity theory to interpersonal and group interaction situations. *Organizational Behavior and Human Performance*, 1972, **8**, 434–449.

*Task:* Groups of 9 *S*s checked and collated IBM cards. *IV:* (1) *S*s on hourly pay:

underpaid, overpaid, or equitably paid; (2) *S*s on piece rate: underpaid, overpaid, or equitably paid; (3) *S*s worked independently, in task-dependent subgroups of 3 with 3 subgroups paid differently, or in task-dependent subgroups of 3 with each member receiving different pay but subgroups receiving same pay. *DV:* (1) Productivity; (2) work quality. *Results:* Hourly paid *S*s produced less but higher quality work than piece rate *S*s. Availability of relevant referents and group setting were important in determining performance.

56. Hinton, B.L., & Barrow, J.C. The use of economic and evaluative reinforcements as a function of one's own reinforcement. Unpublished manuscript, Indiana University, 1973.

    In a laboratory experiment of superior-subordinate reciprocal reinforcement, the reluctance of a superior to use equal negative reinforcements when his own are negative suggests that equity motivation may not operate in the negative range of outcomes.

57. Homans, G.C. Status among clerical workers. *Human Organization,* 1953, **12,** 5–10.

    In an observational study of female clerical workers, equal pay among clerks of different status was perceived as inequitable and resulted in dissatisfaction and efforts to bring pay in line with status.

58. Homans, G.C. *Social behavior: Its elementary forms.* New York: Harcourt, Brace & World, 1961.

    Chapter 12 presents the author's theory of distributive justice.

59. Jaques, E. *Measurement of responsibility.* London: Tavistock Publications, 1956.

    Presents relationship between concepts of span of discretion and responsibility and perceived equitable wage payment.

60. Jaques, E. *Equitable payment.* New York: Wiley, 1961.

    *Vide supra* Jaques (1956).

61. Jaques, E. Equity in compensation. In H.L. Tosi, R.J. House, & M.D. Dunnette (Eds.), *Managerial motivation and compensation: A selection of readings.* East Lansing, Michigan: Michigan State University Business Studies, 1972. Pp. 170–206.

    *Vide supra* Jaques (1956).

62. Johnson, D.A. Equity theory and overpayment: The behavior of children of differing socio-economic backgrounds. Unpublished manuscript, University of California, 1973.

    *Task:* 6th graders coded questionnaires. *IV:* (1) Piece rate or hourly pay; (2) equity, mild inequity, or strong inequity. *MV: S*'s socio-economic status, high or low. *DV:* (1) Productivity; (2) work quality. *Results:* Equity theory predictions supported among higher SES but not lower SES *S*s.

63. Johnson, W.T. Social exchange: Dependency, communication, and inequity. Unpublished doctoral dissertation, University of Washington, 1969.

    Pairs of *S*s allowed to exchange tasks (listen to music, manipulate plunger) do so

more frequently when plunger responses/minute requirements are low and equitable than when high and inequitable.

64. Kahn, A. Reactions to generosity or stinginess from an intelligent or stupid work partner: A test of equity theory in a direct exchange relationship. *Journal of Personality and Social Psychology*, 1972, **21**, 116–123.

*Task:* Pairs of *S*s first worked on proofreading as group and "partner" distributed reward; they then worked individually on second proofreading task and "subject" allocated rewards. *IV:* (1) Partner's qualifications, high or low; (2) sex; (3) *S* overpaid, equitably paid or underpaid after first task. *DV: S*'s allocation of rewards after second task. *Results:* Underpaid *S*s took more and overpaid *S*s took less of the second reward than equitably paid *S*s. Equity-restoring allocations were only partial; a bias toward equal allocation was observed.

65. Kalt, N.C. The temporal resolution of inequity: An exploratory investigation. Unpublished doctoral dissertation, University of Illinois, 1969.

*Task:* Interviewing for 3 one-hour sessions at $2/hr. *IV: S*s told they had done well (equitably paid) or poorly (overpaid) on selection test. *DV:* (1) Productivity; (2) quality of work; (3) job ratings. *Results:* Overpaid *S*s produced more on first day than equitably paid *S*s. *S*s more productive on first session rated their qualifications more favorably on next two sessions than less productive *S*s.

66. Kessler, J.J., & Wiener, Y. Self-consistency and inequity dissonance as factors in undercompensation. *Organizational Behavior and Human Performance*, 1972, **8**, 456–466.

*Task:* Word manipulation, hourly pay. *IV:* (1) *S*s told they were qualified or overqualified; (2) *S*s believed they were working on ego-oriented task dependent on intelligence or on simple clerical task. *DV:* (1) Productivity; (2) work quality. *Results:* Productivity was lower among overqualified *S*s than qualified *S*s. Work quality higher among overqualified *S*s.

67. Klein, S.M. Pay factors as predictors to satisfaction: A comparison of reinforcement, equity, and expectancy. *Academy of Management Journal*, 1973, **16**, 598–610.

To determine the relative predictive value of equity, expectancy, and reinforcement theories, questionnaires were given to blue collar workers to measure their past salary reinforcement, expected future salary treatment, and perceived equity. *Results:* Equity and expectancy predicted job satisfaction, equity being the more powerful predictor.

68. Lane, I.M., & Coon, R.C. Reward allocation in preschool children. *Child Development*, 1972, **43**, 1382–1389.

*Task:* Sticker pasting with fictitious partner; *S*s divided team reward after task. *IV:* (1) 4- or 5-year-old *S*s; (2) sex; (3) *S*-partner inputs: 5-5, 5-15, 15-5, 15-15 stickers. *DV:* Reward allocation by *S*. *Results:* 4-year-old *S*s allocate rewards on basis of self-interest; 5-year-old *S*s allocate rewards on basis of equality, not equity.

69. Lane, I.M., Coon, R.C., & Lichtman, R.J. Developmental trends in the principles employed by children to allocate rewards to others. Paper presented at the meeting of the American Psychological Association, Montreal, August, 1973.

*Task:* Children viewed video-taped TV program of 2 adults playing a ball game for which they would receive money in relation to their performance. Awards allocated to players by *Ss*. *IV:* (1) *Ss* in kindergarten, 2nd, 4th, or 6th grade; (2) insufficient, sufficient, or oversufficient rewards available for *Ss*' distribution to the winner and loser of game; (3) *S*'s sex. *DV:* Reward distribution. *Results: Ss* allocated a greater proportion of reward to the winner in the insufficient and oversufficient conditions than in the sufficient condition. With insufficient rewards, older *Ss* distributed rewards more equitably than younger *Ss*. Generally, the norm of equity was the most important determiner of reward allocation.

70. Lane, I.M., & Messé, L.A. Equity and the distribution of rewards. *Journal of Personality and Social Psychology,* 1971, **20,** 1–17.

*Task:* In 2 experiments, *Ss* completed various paper and pencil instruments, then distributed rewards to selves and partners when both had equal inputs (first exp.) and when their inputs varied systematically (second exp.). *DV:* Reward distribution. *Results:* Equity theory predictions generally upheld with respect to frequency of allocation responses. Allocations in second experiment principally influenced by inputs of partner.

71. Lane, I.M., & Messé, L.A. Distribution of insufficient, sufficient, and oversufficient rewards: A clarification of equity theory. *Journal of Personality and Social Psychology,* 1972, **21,** 228–233.

*Task: S* and confederate partner worked on industrial relations questionnaire. *IV:* (1) *S* and partner worked for varying amounts of time; (2) different amounts of money for *S* to allocate to self and partner. *DV: S*'s allocations. *Results: Ss* allocated money equally when contributions were equal, but only if total money available was consistent with internal standard of fair pay. If the total amount was more or less than this, *Ss* allocated proportionately more to themselves.

72. Lane, I.M., Messé, L.A., & Phillips, J.L. Differential inputs as a determinant in the selection of a distributor of rewards. *Psychonomic Science,* 1971, **22,** 228–229.

*Task:* Answering questionnaires. *IV: Ss* in triads in which one *S* worked 3 hours, one *S* 2 hours, and one *S* 1 hour on proportionate number of questionnaires. *DV:* (1) Each *S*'s allocation of $12; (2) which other *S* in the triad would *S* vote for to allocate rewards. *Results: Ss* allocated rewards equitably in terms of hours worked. *Ss* voted for other *Ss* in the triad whose hour inputs were the highest and most similar to their own to allocate rewards.

73. Lawler, E.E., III. Managers' perception of their subordinates' pay and of their superiors' pay. *Personnel Psychology,* 1965, **18,** 413–422.

Managers from government and private organizations responded to questionnaire about pay. *Results: Ss* reported that the difference between their pay and pay of their superiors and subordinates was too small. *Ss* overestimated subordinates' pay.

74. Lawler, E.E., III. Effects of hourly overpayment on productivity and work quality. *Journal of Personality and Social Psychology,* 1968, **10,** 306–313. (a)

*Task:* Public interviewing, hourly pay. *IV: Ss* overpaid (low qualifications for task), overpaid by circumstance (qualified), or equitably paid (qualified). *DV:* (1) Productivity; (2) work quality; (3) *S*'s desire to prove his competence. *Results:* Overpaid *Ss*

produced more but lower quality work. *S*s overpaid by circumstance did not differ from equitably paid *S*s. Overpaid *S*s scored higher on desire to prove competency than other *S*s.

75. Lawler, E.E., III. Equity theory as a predictor of productivity and work quality. *Psychological Bulletin*, 1968, 70, 596–610. (b)

Compares the value of equity theory and expectancy theory in predicting work performance.

76. Lawler, E.E., III, Koplin, C.A., Young, T.F., & Fadem, J.A. Inequity reduction over time in an induced overpayment situation. *Organizational Behavior and Human Performance*, 1968, 3, 253–268.

*Task:* Public interviewing for three 2-hour periods, piece rate pay. *IV:* (1) *S*s told they were qualified (equitably paid), or underqualified (overpaid) for task; (2) *S*s' need for money earned. *DV:* (1) Productivity; (2) work quality; (3) perceived qualifications. *Results:* Overpaid *S*s produced less but higher quality work than equitably paid *S*s in first period, but not next two. Instead, their perceptions of their qualifications increased. *S*s' need for money correlated with productivity among both overpaid and equitably paid.

77. Lawler, E.E., III, & O'Gara, P.W. Effects of inequity produced by underpayment on work output, work quality, and attitudes toward the work. *Journal of Applied Psychology*, 1967, 51, 403–410.

*Task:* Interviewing for 2 hours, piece rate pay. *IV:* *S*s underpaid (10¢ rate) or equitably paid (25¢ rate). *DV:* (1) Productivity; (2) work quality; (3) attitudes toward job. *Results:* Underpaid *S*s produced more interviews, but of lower quality, and perceived job as more interesting but less complex, important, and challenging than equitably paid *S*s.

78. Legant, P. Equity theory and the law: Suggestions for future research. Symposium presented at the meeting of the American Psychological Association, Montreal, August, 1973.

79. Lerner, M.J. Evaluation of performance as a function of performer's reward and attractiveness. *Journal of Personality and Social Psychology*, 1965, 1, 355–360.

*Task:* Female *S*s listened to tape of 2 students working equally well at joint anagram task. One worker was more attractive than other. *IV:* The attractive or less attractive worker paid $3.50 for his work, the other paid nothing. *DV:* *S*s' performance ratings of workers. *Results:* *S*s rated rewarded worker as having contributed more than the unrewarded worker. The ratings of work group contribution were lower and *S*s were more uncomfortable when the less attractive worker was rewarded.

80. Lerner, M.J. The desire for justice and reactions to victims. In J. Macaulay and L. Berkowitz (Eds.), *Altruism and helping behavior*. New York: Academic Press, 1970. Pp. 205–229.

A review of the author's work, including data, on the behavior of persons toward victims and on the concept of justice in such contexts.

81. Lerner, M.J. The justice motive: "Equity" and "parity" among children. *Journal of Personality and Social Psychology*, 1974, **29**, 539–550.

*Task:* In 3 experiments, kindergarten, 1st, and 5th grade *S*s performed manual tasks with fictitious partner as a team or individually. *S*s then assumed supervisor role and allocated rewards to selves and partners, or *S*s simply determined own share. *IV:* (1) *S* produced more or less than partner; (2) team vs. individual instructions. *DV:* Reward allocations. *Results:* Kindergartners based allocations on equality rather than equity.

82. Leventhal, G.S. Equity and the economics of reward distribution. Paper presented at the meeting of the American Psychological Association, Honolulu, September, 1972. (a)

*Task: S* to recommend pay increases for 4 hypothetical employees who had received outside job offer. *IV:* (1) High or low productivity of employees; (2) high or average attractiveness of outside offer working conditions and benefits; (3) instructions to *S*s to make counter offers to weed out worst and retain best employees; instructions to retain all employees; or no instructions. *DV: S*s' recommendation for pay increase to each employee. *Results: S*s offered high productivity workers more than low productivity workers and more when outside offer was highly attractive than when it was average. Difference between amount offered to high and low productivity workers greater for *S*s told to weed out worst and retain best than for *S*s told to retain all.

83. Leventhal, G.S. Reward allocation in social relationships. Paper presented at the meeting of the Southeastern Psychological Association, Atlanta, April, 1972. (b)

Presents a framework for conceptualizing allocator-recipient relationships.

84. Leventhal, G.S. Reward allocation by males and females. Paper presented at the meeting of the American Psychological Association, Montreal, August, 1973.

Reviews a large body of literature to determine the effects of subject sex on the distribution of rewards. Males generally deviate more on the exploitative side of equity; females display generosity generally, preferring equality or deviations from equity that are unfavorable to themselves. Sex differences in achievement motivation may provide a partial explanation.

85. Leventhal, G.S., Allen, J., & Kemelgor, B. Reducing inequity by reallocating rewards. *Psychonomic Science*, 1969, **14**, 295–296.

*Task: S* and partner (confederate) performed arithmetic task for group pay of $1.40 allocated by partner. *S* then allowed to change allocation. *IV:* Amount allocated by partner to *S:* $1.20, 95¢, 70¢, 45¢, 20¢, 5¢, or 2¢. *DV:* (1) *S*'s changing allocation of reward; (2) *S*'s tension and anticipatory behavior toward partner. *Results: S*s receiving too much (too little) relative to their work inputs decreased (increased) their own rewards. *S*s receiving 70¢ did not change allocation. Five *S*s suffering extreme inequity (5¢ and 2¢ allocations) *decreased* their rewards. *S*s' tension level increased as size of the inequity increased; *S*s planned to compensate for inequity on future trials.

86. Leventhal, G.S., & Anderson, D. Self-interest and the maintenance of equity. *Journal of Personality and Social Psychology*, 1970, **15**, 57–62.

*Task:* Preschool children pasted stars with fictitious partner. *IV:* (1) *S*s told their performance was superior, equal, or inferior to partner's; (2) *S*s' sex. *DV:* (1) Reward allocation; (2) *S*s' reports of each member's performance. *Results:* Boys took more reward when their performance was superior than when it was equal to partner's. Girls did not. Neither boys nor girls in inferior performance conditions took less than half of reward, but both minimized partners' performance.

87. Leventhal, G.S., & Bergman, J.T. Self-depriving behavior as a response to unprofitable inequity. *Journal of Experimental Social Psychology*, 1969, **5**, 153–171.

*Task: S* and confederate worked equally on arithmetic task. *IV:* (1) Confederate gave *S* 40¢ or 5¢ of $1.40 reward after task; (2) confederate sent *S* message with high or low status threat. *DV: S*'s reallocation, either increasing or decreasing his reward up to 5¢. *Results: S*s awarded somewhat less than half of reward increased their share, whereas *S*s awarded much less decreased their share. Extreme unprofitable inequity increases self-depriving behavior.

88. Leventhal, G.S., & Lane, D.W. Sex, age, and equity behavior. *Journal of Personality and Social Psychology*, 1970, **15**, 312–316.

*Task: S*s worked with fictitious partners on multiplication problems for which the pair received money. *S*s allowed to divide earnings afterward. *IV:* (1) *S*s told their performance was inferior or superior to partner's; (2) *S*s' sex. *DV:* (1) Allocation of earnings; (2) perceptions of inputs. *Results:* Males allocated rewards equitably on the basis of performance. Females in superior performance condition took approximately half the reward; those with inferior performance took much less than half. Superior performance females tended to belittle their performance.

89. Leventhal, G.S., & Michaels, J.W. Extending the equity model: Perception of inputs and allocation of reward as a function of duration and quantity of performance. *Journal of Personality and Social Psychology*, 1969, **12**, 303–309.

*Task: S*s worked with confederates on jigsaw puzzles and then allocated rewards earned. *IV: S*s required: (1) to work for longer or shorter duration than confederate, and (2) to complete smaller or greater quantity of work. *DV:* (1) Reward allocation; (2) perceptions of inputs. *Results:* With amount of work constant, *S*s who worked longer took less reward than *S*s who worked for shorter duration. When amount of work and duration were proportional for each member, *S*s divided reward equally.

90. Leventhal, G.S., & Michaels, J.W. Locus of cause and equity motivation as determinants of reward allocation. *Journal of Personality and Social Psychology*, 1971, **17**, 229–235.

*Task: S*s judged extent to which 16 hypothetical persons should be rewarded for performance in vertical jumps. *IV:* Attributes of hypothetical persons: (1) high or low jump performance; (2) high or low effort; (3) tall or short body height; (4) useful or unuseful training. *DV:* How deserving of reward persons were. *Results:* With performance held constant, persons whose height and training helped them in jumping were rated as less deserving than those whose height and training did not

help. *S*s rated individuals with high effort as more deserving than those with low effort.

91. Leventhal, G.S., Michaels, J.W., & Sanford, C. Inequity and interpersonal conflict: Reward allocation and secrecy about reward as methods of preventing conflict. *Journal of Personality and Social Psychology*, 1972, **23**, 88–102.

*Task:* In 2 experiments, *S*s allocated rewards to 4 hypothetical group members. *IV:* Group members varied as to (1) high or low performance and (2) high or low effort; (3) *S*s instructed to allocate rewards in way to prevent conflict among members, to prevent conflict between experimenters and members, to ignore possibility of conflict, or given instructions without reference to conflict. (4) Group members would know (no secrecy) or not know (secrecy) rewards others received. *DV:* Amount of reward to members. *Results:* *S*s gave higher rewards to better performers. They increased worst performer's share at expense of best under instructions to prevent member conflict; inflation of worst performer's rewards was smaller under secrecy than no secrecy. *S*s' desire to conceal reward distribution was greatest in case of members given low reward.

92. Leventhal, G.S., Popp, A.L., & Sawyer, L. Equity or equality in children's allocation of reward to other persons? *Child Development*, 1973, **44**, 753–763.

*Task:* In 2 experiments, children performed pegboard (or block) task and were rewarded. *S*s then asked to award picture seals to 2 fictitious children who had performed similar task, the results of which were shown. *IV:* (1) Small or large performance difference between 2 children; (2) allocate rewards as *S*s thought best or as a teacher evaluating the results would think best; (3) *S*s' sex. *DV:* Reward allocation. *Results:* *S*s, especially boys, gave greater rewards to better performer when performance difference between children was large. Boys gave greater rewards to better performers when using own judgment than when expecting teacher to evaluate allocation.

93. Leventhal, G.S., Weiss, T., & Buttrick, R. Attribution of value, equity, and the prevention of waste in reward allocation. *Journal of Personality and Social Psychology*, 1973, **27**, 276–286.

*Task:* In 2 experiments, *S*s could reward with rolls of film or paperbacks 2 fictitious telephone interviewees who were equally good respondents. *IV:* (1) High or low previous purchase and use of film; (2) *E* stressed spoilage of unused film or omitted mention of this; (3) systematic variations in purchase and reading of books. *DV:* Reward allocation. *Results:* Interviewees more likely to be given film by *S* if they had used film at high rate in past and if *S* was in spoilage condition. *S* gave more books if interviewee had high past rate of usage, but only if past usage rate of interviewees was greatly different.

94. Leventhal, G.S., Weiss, T., & Long, G. Equity, reciprocity, and reallocating rewards in the dyad. *Journal of Personality and Social Psychology*, 1969, **13**, 300–305.

*Task:* *S* and fictitious partner proofread materials; partner then allocated $2 reward. *S* then had opportunity to reallocate reward. *IV:* (1) *S*s told that partner allocated reward intentionally or by chance; (2) *S* underrewarded (60¢) or overrewarded ($1.40). *DV:* (1) *S*s modification of the reward allocation; (2) responses to ques-

tionnaire. *Results:* *Ss* overrewarded intentionally decreased their share of reward more than *Ss* overrewarded by chance. *Ss* underrewarded by chance increased their reward to same extent as *Ss* underrewarded intentionally.

95. Leventhal, G.S., & Whiteside, H.D. Equity and the use of reward to elicit high performance. *Journal of Personality and Social Psychology*, 1973, *25*, 75–83.

*Task:* *Ss* awarded mid-term grades to 8 hypothetical students whose exam performance was constant. *IV:* (1) High or low aptitude of students; (2) students, forewarned or not, were expected to perform at their best; (3) *Ss* instructed to grade fairly or to elicit highest possible future performance. *DV:* Grade allocation. *Results:* *Ss* gave higher grades to students with lower aptitude. This was more pronounced when *Ss* were trying to motivate high future performance and when students had been warned to do their best.

96. Leventhal, G.S., Younts, C.M., & Lund, A.K. Tolerance for inequity in buyer-seller relationships. *Journal of Applied Social Psychology*, 1972, **2**, 308–318.

*Task:* In 2 experiments, household consumers were sold a cleaning product by *E* and then offered a rebate. *IV:* (1) Consumers told rebate was from salesman or from company; (2) consumers told rebate was from salesman, from an individual supplier of the salesman, from a group of suppliers, or from the company. *DV:* Consumers' acceptance of rebate. *Results:* Householders accepted rebate from company more than from others.

97. Libby, W.L., & Garrett, J. Role of intentionality of mediating children's responses to inequity. *Developmental Psychology*, 1974, in press.

*Task:* 1st and 5th graders worked on timed proofreading, believing that another child was doing same task in another room and that they would jointly receive 10 pennies for working. Partner divided 10 pennies, then *S* distributed 10 bonus pennies. *IV:* (1) *Ss* underrewarded (3¢) or overrewarded (7¢); (2) *Ss* told that the partner's allocation was intentional or chance; (3) school grade. *DV:* (1) *Ss* allocation of 10 bonus pennies; (2) fairness and goodness ratings of partner. *Results:* Overrewarded *Ss* split bonus in half with partners; underrewarded *Ss* awarded only 3¢ to partner. Neither intentionality nor grade had an effect on bonus division.

98. Lincoln, A., & Levinger, G. Observers' evaluations of the victim and the attacker in an aggressive incident. *Journal of Personality and Social Psychology*, 1972, **22**, 202–210.

*Task:* *Ss* observed slides of white policeman and black civilian. *IV:* (1) Policeman in slides attacking civilian (aggression) or not (nonaggression); (2) *Ss*' ratings to be used only by *E* (no consequence) or by investigative interracial commission (consequence). *DV:* (1) Ratings of perceived injustice; (2) rating of policeman and black civilian. *Results:* In no-consequence condition, civilian rated lower under aggression than nonaggression. Reverse obtained in consequence condition. In consequence condition, ratings of civilian positively correlated with perceived injustice.

99. Long, G.T., & Lerner, M.J. Deserving, the "personal contact," and altruistic behavior by children. *Journal of Personality and Social Psychology*, 1974, in press.

*Task:* 4th grade *Ss* engaged to "market test" a game for 70¢ pay. They were then given opportunity to donate some of pay to a child charity. *IV:* (1) Donation to

charity would be known to no one, to *E* and teacher, or to future younger *S*s; (2) overpaid or properly paid; (3) *S*s' scores on delay of gratification test. *DV:* Donation to charity. *Results:* Overpaid *S*s donated more than properly paid *S*s. *S*s with high tolerance for delayed gratification gave more when overpaid and less when properly paid. No effect of who would know of donation.

100. Macaulay, S., & Walster, E. Legal structures and restoring equity. *Journal of Social Issues,* 1971, **27,** 173–188.

In a review of relevant research, examines factors that promote or inhibit the restoration of equitable relationships between harmdoer and victim. Discusses legal practices in this context.

101. Marwell, G., Ratcliff, K., & Schmitt, D.R. Minimizing differences in a maximizing difference game. *Journal of Personality and Social Psychology,* 1969, **12,** 158–163.

*Task:* Pairs of *S*s played 2-person games in 2-stage experiment. *IV:* (1) Games played in first stage produced inequity or equity between *S*s; (2) sex of *S*s. *DV: S*s' noncooperation in the second stage Maximizing Difference Game. *Results: S*s behind their partners in first stage made more noncooperative responses than their "ahead" partners, thus minimizing the difference between players and increasing equity. The effect was stronger among females.

102. Masters, J.C. Effects of social comparison upon subsequent self-reinforcement behavior in children. *Journal of Personality and Social Psychology,* 1968, **10,** 391–401.

*Tasks:* In 3 experiments, 4-year-old *S*s played question game with younger partners for which they received reward tokens. Then (Exp. I) *S* played game alone and took as many rewards as he wanted; (Exp. II) replayed question game with *E* and *S* divided reward tokens; or (Exp. III) *S* replayed game with partner and *S* divided rewards. *IV:* (1) *S*s received fewer, the same, or more reward tokens than partner; (2) *S*s' sex. *DV:* (1) Amount of reward *S*s gave themselves in second game; (2) *S*s' willingness to replay game. *Results:* Children receiving fewer and girls receiving more rewards than partner took more rewards in second game both when alone and when allocating rewards for replaying game with *E*.

103. Masters, J.C. Social comparison, self-reinforcement, and the value of a reinforcer. *Child Development,* 1969, **40,** 1027–1038.

*Task:* 4- to 5-year old *S*s played question game with younger partner for which they received reward-tokens. Then *S*s replayed question game with *E* and divided rewards. *IV:* (1) *S*s received fewer, the same number, or more reward tokens than partner; (2) *S*s' sex. *DV:* Number of reward tokens *S*s gave themselves when replaying game with *E*. *Results: S*s receiving fewer and girls receiving more tokens than partners took more tokens in the second game.

104. McArthur, L.A., Kiesler, C.A., & Cook, B.P. Acting on an attitude as a function of self-percept and inequity. *Journal of Personality and Social Psychology,* 1969, **12,** 295–302.

*Task:* After completing 2 "bogus" tasks, *S*s received feedback and were promised pay for a future one-hour test. *IV:* (1) Low ($1.50) or high ($10) promised

payment; (2) feedback to *Ss*: had "doer" personality entitling them to payment; had "doer" personality, but entitled to payment because of task performance; or entitled to payment because of performance. *DV: Ss*' response to request by a second experimenter to pass out antipollution leaflets. *Results:* High payment *Ss* were more willing to pass out leaflets than low payment *Ss*. *Ss* told they were paid for having "doer" personality were more willing to pass out leaflets than *Ss* in other feedback conditions.

105. McCranie, E.W., & Kimberly, J.C. Rank inconsistency, conflicting expectations and injustice. *Sociometry*, 1973, **36**, 152–176.

Distinguishes between 2 distinct processes resulting from rank inconsistency: conflicting expectations and feelings of injustice. Data providing support for the distinction are reported.

106. Messé, L.A. Equity in bilateral bargaining. *Journal of Personality and Social Psychology*, 1971, **17**, 287–291.

*Task: Ss* first performed questionnaire task for varying lengths of time; they were then paired to bargain using Morgan-Sawyer bargaining board with 9 possible outcomes. *Ss* spending more time in pretask assigned high payoff side of board. *IV:* Amount of time spent on questionnaire task, 0, 40, 50, 60, or 80 minutes. *DV:* Agreed-upon outcomes in bargaining. *Results:* Equity mediated the bargaining conflict. *Ss* agreed upon outcomes on the basis of amount of time spent on pretask.

107. Messé, L.A., Dawson, J.E., & Lane, I.M. Equity as a mediator of the effect of reward level on behavior in the prisoner's dilemma game. *Journal of Personality and Social Psychology*, 1973, **26**, 60–65.

*Task:* PD game bargaining. *IV:* (1) *Ss* either worked for $1\frac{1}{2}$ hours on prebargaining task or did not; (2) low or high-reward PD matrix; (3) *Ss* told or not told how many PD trials they would play. *DV:* Amount of cooperation in PD game. *Results: Ss* who worked on pretask made more cooperative responses in high-reward PD game than in the low-reward game, resulting in more equitable payment. *Ss* who did not work on pretask made more cooperative responses in low-reward than high-reward game.

108. Messé, L.A., & Lane, I.M. Rediscovering the need for multiple operations: A reply to Austin and Susmilch. *Journal of Personality and Social Psychology*, 1974, in press.

*Vide supra* Austin and Susmilch (1974).

109. Messé, L.A., & Lichtman, R.J. Motivation for the reward as a mediator of the influence of work quality on allocation behavior. Paper presented at the meeting of the Southeastern Psychological Association, Atlanta, April, 1972.

*Task:* Multiplication problems done with fictitious co-worker. *IV:* (1) Sex; (2) quality of *S*'s performance, superior or inferior to co-worker; (3) *S* worked longer or shorter time than co-worker; (4) *S* recruited by promise of money or research credit. *DV: S*'s reward allocation to himself and co-worker. *Results:* Promise of research credit led to work quality as basis for reward allocation more than promise of money. Females allocated more to partners than to themselves.

110. Mikula, G. Gewinnaufteilungsverhalten in Dyaden bei variiertem Leistungsverhältnis. *Zeitschfirt für Sozialpsychologie,* 1972, **3**, 126–133. (a)

The relative task performance of pairs of Austrian servicemen were varied in the ratios 75/25, 62.5/37.5, and 55/45. Upon task completion *S*s allocated points for money. Allocation was proportional to performance in the 55/45 condition; in the other conditions allocations fell between equality and equity, with a bias favoring the inferior performer.

111. Mikula, G. Gewinnaufteilungsverhalten in gleichgeschlechtlichen Dyaden: Eine Vergleichsstudie österreichischer und amerikanischer Studenten. *Psychologie und Praxis,* 1972, **16**, 97–106. (b)

Cross-cultural (Austrian, American) study of reward distribution among pairs of children, in which one's performance exceeded the other's or was equal. More reward distributed to superior performer among Austrian, American, and male, female *S*s.

112. Mikula, G. Die Entwicklung des Gewinnaufteilungsverhaltens bei Kindern and Jugendlichen: Eine Untersuchung an 5-, 7-, 9- and 11 jährigen. *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie,* in press.

(Not available for review.)

113. Milardo, S.G. Modes of reducing inequity: Distortion or compensation? Unpublished doctoral dissertation, University of Georgia, 1971.

*S*s who administered shock to a partner were more likely to increase the latter's outcomes than to distort their characteristics or the harm they suffered. Anticipation of future association with the victims had no effect.

114. Moore, L.M., & Baron, R.M. Effects of wage inequities on work attitudes and performance. *Journal of Experimental Social Psychology,* 1973, **9**, 1–16.

*Task:* Proofread galleys, piece rate pay. *IV:* (1) "Standard," greater, or lesser pay; (2) *S*s told they were qualified or unqualified for task. *DV:* (1) Productivity; (2) work quality; (3) *S*s' work attitudes. *Results:* Unqualified *S*s produced higher quality but lower quantity than qualified *S*s. Overpaid qualified *S*s did poorer quality work than standard pay qualified *S*s. No main effects of pay on productivity. Unqualified *S*s more dissatisfied than qualified *S*s. Overcompensated *S*s perceived the work as more important than undercompensated *S*s.

115. Morgan, W.R., & Sawyer, J. Bargaining, expectations, and the preference for equality over equity. *Journal of Personality and Social Psychology,* 1967, **6**, 139–149.

*Task:* Using a game board, 5th and 6th grade boys bargained for monetary rewards with a partner. Possible rewards for each differed. *IV:* (1) *S*s did or did not have information about partners' expectations; (2) partners were friends or non-friends. DV: (1) Duration of bargaining; (2) outcomes. *Results: S*s preferred equality of outcomes. Knowledge of partner's expectations facilitated bargaining.

116. Morris, S.C., & Rosen, S. Effects of felt adequacy and opportunity to reciprocate on help seeking. *Journal of Experimental Social Psychology,* 1973, **9**, 265–276.

*Task: S*s assumed role of disabled person (arm in sling), performed manual task,

and told they could not meet quota. Later told electricity would be cut off, affecting help they could give to visually handicapped co-worker. *IV:* (1) *S*s told they performed well or poorly for manually handicapped person; (2) told it would be possible or impossible to help visually handicapped co-worker. *DV: S*s help-seeking from co-worker on first task. *Results: S*s told they performed poorly were less likely to seek help. Effects of opportunity to help co-worker later were mixed.

117. Nielsen, J.O.M. Experimental analysis of equitable and inequitable social exchange. Unpublished doctoral dissertation, University of Washington, 1972.

In a situation in which *S* could earn money in exchanges with partner, *S*s continued to engage in exchange behavior, whether or not the exchange was equitable, so long as alternatives to it were not more profitable. If *S* had the opportunity to take part of partner's earnings, the development of exchange behavior was reduced.

118. Nystrom, P.C. Equity theory and career pay: A computer simulation approach. *Journal of Applied Psychology,* 1973, **57,** 125–131.

Based on career salaries of 100 persons, a computer model finds support for Jaques' theory of equitable payment.

119. Opsahl, R.L., & Dunnette, M.D. The role of financial compensation in industrial motivation. *Psychological Bulletin,* 1966, **66,** 94–118.

General review and critique of the role of monetary compensation in the motivation and performance of industrial workers. Includes discussion of wage equity considerations.

120. Overstreet, R.E. Social exchange in a 3-person game. *Journal of Conflict Resolution,* 1972, **16,** 109–123.

Using a 3-person political coalition game, *S*s gave evidence that equity processes may account for the formation of some coalitions.

121. Patchen, M. *The choice of wage comparisons.* Englewood Cliffs, New Jersey: Prentice-Hall, 1961.

Report of survey data obtained in a Canadian oil company. Especially relevant are data on workers' choices of wage comparisons and satisfaction with pay.

122. Pepitone, A. The role of justice in interdependent decision making. *Journal of Experimental Social Psychology,* 1971, **7,** 144–156.

Task: In 2 experiments pairs of *S*s played PD game. *IV:* One of 2 *S*s given $2 bonus on the basis of merit test, given bonus arbitrarily, or given no bonus. *DV: S*s' choices in PD game. *Results: S*s made maximizing choices with a frequency such that equity obtained.

123. Pepitone, A., Maderna, A., Caporicci, E., Tiberi, E., Iacono, G., Majo, G., Perfetto, M., Asprea, A., Villone, G., Fua, G., & Tonucci, F. Justice in choice behavior: A cross-cultural analysis. *International Journal of Psychology,* 1970, **5,** 1–10.

*Task:* In 2 experiments, pairs of American and Italian *S*s took an aptitude test and played PD game; *E* made initial award to one *S;* then *S*s resumed play. *IV: E* gave

one *S* in pair monetary award based on aptitude test score (equity) or arbitrarily without reference to test score (inequity). *DV:* *S*'s PD game response choices after *E* award. *Results:* American *S*s in inequity condition who received award made fewer gain maximizing choices than partners; in equity condition, *S*s' choices maintained test-related award inequality. Italian *S*s behaved similarly in inequity, but not equity condition.

124. Piaget, J. *The moral judgment of the child.* Glencoe: Free Press, 1948. (Republished New York: Free Press, 1965.)

Chapter 3, "Cooperation and the Development of the Idea of Justice," is relevant to research on equity and distributive justice among children.

125. Planz, C.A. Perceived equity and its relation to attrition among early career male teachers in selected school districts. Unpublished doctoral dissertation, State University of New York at Buffalo, 1970.

Male teachers who had stayed in or left 2 school districts with differing reward structures were interviewed. *Results:* Stayers perceived a higher degree of equity than leavers. Above average performance was correlated with perceived equity.

126. Pritchard, R.D. Equity theory: A review and critique. *Organizational Behavior and Human Performance,* 1969, **4,** 176–211.

127. Pritchard, R.D., Dunnette, M.D., & Jorgenson, D.O. Effects of perceptions of equity and inequity on worker performance and satisfaction. *Journal of Applied Psychology,* 1972, **56,** 75–94.

*Task:* Male *S*s worked on clerical task in simulated company for 7 half-days. *IV:* (1) Hourly or modified piece rate pay, pay mode reversed after 3 sessions; (2) equitable, over-, or underpayment. *DV:* (1) Performance; (2) job satisfaction. *Results:* Overpayment and underpayment resulted in higher and lower performance, respectively. Over- and underpaid *S*s more dissatisfied than equitably paid *S*s.

128. Radinsky, T.L. Equity and inequity as a source of reward and punishment. *Psychonomic Science,* 1969, **15,** 293–295.

*Task: S* and alleged other played game with 2 possible responses, one of which resulted in "equitable" outcomes and other in unfavorable inequity outcomes. *IV:* (1) *S* given knowledge of own and other's outcomes or only of own outcomes; (2) *S*'s sex. *DV:* Number of times each of 2 possible choices made. *Results: S*s' responses in comparison and noncomparison conditions suggest that equity and inequity have reward and punishment effects, respectively. Female *S*s more sensitive to equity-inequity than males.

129. Regula, C.R. The effects of inequity and responsibility on helping behavior. Unpublished doctoral dissertation, State University of New York at Buffalo, 1969.

*Task:* 4 *S*s worked on a joint task. *S* was asked by another (confederate) for help with his work. *IV:* (1) Confederate's pay the same, higher, or lower than *S*'s pay; (2) *S* believed he was the only one helping confederate or was sharing the responsibility with another *S*. *DV:* (1) Amount of work; (2) liking for confederate.

*Results:* *Ss* produced and liked confederate more when pay inequity was advantageous to them than when it was disadvantageous. *Ss* produced more when jointly responsible than when solely responsible for helping.

130. Rosen, B., & Jerdee, T.H. Factors influencing disciplinary judgments. *Journal of Applied Psychology*, 1974, 59, 9–14.

*Task:* *Ss* read one of 8 versions of a case describing a salesman who "padded" his expense account. *Ss* then recommended the most appropriate disciplinary action. *IV:* Padding was \$10–15 or \$80–100 monthly; (2) company paid among the highest or lowest commissions in the industry; (3) salesman's performance was 10% above or 10% below previous year's. *DV:* (1) Severity of recommended discipline; (2) perceived seriousness and unethicality of "padding"; (3) perceived responsibility for offense. *Results:* Discipline was less severe for salesman in low paying company than in high paying one. Perceived seriousness and unethicality of offense and the salesman's responsibility for it were lower in the low paying company.

131. Ross, M., Thibaut, J., & Evenbeck, S. Some determinants of the intensity of social protest. *Journal of Experimental Social Psychology*, 1971, 7, 401–418.

*Task:* Pairs of boys ("workers") pulled a rope to match a target force that increased over trials. Fictitious "managers" allocated points to workers and to themselves. Points to workers progressively increased in first 2/3 of trials, then decreased. Finally, *Ss* could transmit neutral signals or painful noise to either of two managers to obtain preferred prizes, one manager being responsible for point reversal. *IV:* (1) Evaluative feedback signalling competence or incompetence; (2) points earned on each trial were contingent or noncontingent on evaluations. *DV:* Duration of noise sent to managers. *Results:* More painful noise transmitted by competent *Ss*. *Ss* suffering greater inequity in outcomes also delivered more punishment to "managers."

132. Rothbart, M. Effects of motivation, equity, and compliance on the use of reward and punishment. *Journal of Personality and Social Psychology*, 1968, 9, 353–362.

*Task:* In 2 experiments *Ss* acting as "supervisors" of a fictitious worker were to increase the latter's performance on letter-cancelling task by using threat of monetary punishment or promise of reward. *E* controlled information about worker performance. *IV:* (1) High (\$4) or low (nothing stated) motivation of supervisor; (2) *Ss* believed worker would receive only monetary rewards given by supervisor or \$2.50, regardless. *DV:* Use of reward or punishment by *S*. *Results:* *Ss* in high motivation condition used punishment more when they believed worker would receive \$2.50, when the earnings discrepancy between the two was least.

133. Sampson, E.E. Studies of status congruence. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, Vol. 4. New York: Academic Press, 1969. Pp. 225–270.

Status congruence is discussed as specific case of the functioning of mastery and of justice. Justice is composed of both equity and equality principles.

134. Sayles, L.R. *Behavior of industrial work groups: Prediction and control.* New York: Wiley, 1958.

See Chapter 4, "Dynamics of Work Group Behavior," in particular, in which social comparisons and inequity are discussed.

135. Schmitt, D.R., & Marwell, G. Withdrawal and reward reallocation as responses to inequity. *Journal of Experimental Social Psychology,* 1972, 8, 207–221.

*Task:* In 3 experiments, pairs of *S*s worked on cooperative or individual tasks; rewards for cooperation greater than for individual work, but favorably inequitable. Withdrawal from cooperative to lower-paying individual task was the only alternative to cooperation. *IV:* (1) Large, moderate, or small inequity; (2) in moderate inequity condition, *S*s could either give money to or take money from each other. *DV:* (1) Amount of time spent cooperating; (2) transfer of money. *Results:* Withdrawal from cooperation was an increasing function of inequity. When allowed to transfer rewards, most subjects transferred enough to produce equity or near equity.

136. Shapiro, E.G. Equity and equality in the allocations of rewards in a dyad. Unpublished doctoral dissertation, University of Michigan, 1972.

Following manipulation of *S*s' inputs and social distance, *S*s allocated rewards to themselves and a partner. High input *S*s allocated themselves more than half, low input *S*s less than half. High input *S*s allocated more to themselves when social distance was high.

137. Simmons, C.H., & Lerner, M.J. Altruism as a search for justice. *Journal of Personality and Social Psychology,* 1968, 9, 216–225.

*Task:* In 2 experiments, female *S*s were supervisors whose pay depended on a fictitious partner who made checkerboards. In a second task, *S*s were workers making envelopes. *IV:* (1) *S*s had been rewarded or "betrayed" by the partner's high or low production of checkerboards or had worked independently (control); (2) *S*s believed their supervisor in second task had been rewarded or betrayed on first task. *DV:* Envelopes made. *Results:* Previously rewarded *S*s produced more for betrayed supervisors and least for rewarded supervisors.

138. Solomon, D., & Druckman, D. Age, representatives' prior performance, and the distribution of winnings with teammates. *Human Development,* 1972, 15, 244–252.

*Task:* Pairs of boy "representatives" and "partners" played games to divide the representatives' winnings in prior games with other representatives. *IV:* (1) Representative's prior winnings greater than opponents'; (2) age: 7–9, 10–12, or 13–15; (3) first, middle or last phase of game. *DV:* (1) Outcome of games; (2) competitiveness. *Results:* Representatives who made less than opponent prior to final game made less than partners in final game in 7–9 dyads, made the same in 10–12 dyads, and made more in 13–15 dyads.

139. Stefanowicz, J.P. The resolution of inequity by outpatient schizophrenics. Unpublished doctoral dissertation, Iowa State University, 1969.

*Task:* Outpatient schizophrenics sorted and assembled data cards. *IV:* Over-,

under-, or equitable compensation. *DV:* Productivity. *Results:* No significant effects.

140. Stephenson, G.M., & Fielding, G.T. An experimental study of the contagion of leaving behavior in small gatherings. *Journal of Social Psychology*, 1971, **84**, 81–91.

*Task:* In 2 experiments, English *S*s constructed words from letters in another word. *IV:* (1) *S*s in groups or alone; (2) presence of collaborators who left after certain time or stayed until all *S*s had left; (3) *S*s told they would receive less, more, or same pay as participants in previous experiments. *DV:* Length of time *S*s worked on task. *Results:* After one person left a group, others left sooner than if alone. Deprived *S*s more likely to leave after collaborator left than other *S*s.

141. Stephenson, G.M., & White, J.H. An experimental study of some effects of injustice on children's moral behavior. *Journal of Experimental Social Psychology*, 1968, **4**, 460–469.

*Task:* English boys played model racing car games, some racing, and some retrieving cars. They were then given opportunity to win prizes by cheating on a car racing quiz. *IV: S*s raced cars whole time ("privileged"); raced and retrieved half the time ("equity"); retrieved only for *adult* racers ("relative deprivation"); or retrieved only for other boys ("absolutely deprived"). *DV:* Cheating on quiz. *Results:* Cheating greatest among the absolutely deprived and greater among the relatively deprived than among the equitably treated. Privileged *S*s did not cheat less than equitably treated.

142. Stouffer, S.A., Suchman, E.A., DeVinney, L.C., Star, S.A., & Williams, R.M., Jr. *The American soldier: Adjustment during army life.* Princeton, New Jersey: Princeton University Press, 1949.

The concept of relative deprivation is introduced on pp. 105–154 to explain anomalous findings on soldier satisfaction.

143. Taynor, J., & Deaux, K. When women are more deserving than men: Equity, attribution, and perceived sex differences. *Journal of Personality and Social Psychology*, 1973, **28**, 360–367.

*Task:* Male and female *S*s read descriptions of male or female stimulus person behaving appropriately in civic emergency situation previously shown to be more masculine than feminine. *S*s then rated stimulus persons. *IV:* (1) *S*'s sex; (2) sex of stimulus person; (3) presence or absence in emergency situations of non-acting person whose sex was opposite to stimulus person's. *DV:* (1) How deserving of reward stimulus person is; (2) ratings of stimulus person. *Results:* Female stimulus persons were perceived as deserving more reward than males in the same situation, and their ratings were correspondingly inflated.

144. Telly, C.S., French, W.L., & Scott, W.G. The relationship of inequity to turnover among hourly workers. *Administrative Science Quarterly*, 1971, **16**, 164–172.

Hourly employees in high and low turnover shops in a large company responded to questionnaire about inequity pertaining to pay, supervision, leadmen, security, advancement, working conditions, and intrinsic and social aspects of the job. Inequity correlated with turnover.

145. Tornow, W.W. The development and application of an input-outcome moderator test on the perception and reduction of inequity. *Organizational Behavior and Human Performance*, 1971, **6**, 614–638.

Proposes that ambiguous job elements may be perceived by *S*s as either inputs or outcomes. Based on responses to a 120-item questionnaire, *S*s who had previously participated in an equity experiment (*vide supra* Pritchard, Dunnette & Jorgenson, 1972) were classified as Type I (job elements perceived as inputs) and Type O (elements viewed as outcomes). The general findings are that perceptions of job elements improves the predictability of *S*s' responses to over- and underreward. Underrewarded Type I *S*s feel more underrewarded than underrewarded Type O *S*s and overrewarded Type I *S*s feel less overrewarded than overrewarded Type O *S*s.

146. Valenzi, E.R., & Andrews, I.R. Effect of hourly overpay and underpay inequity when tested with a new induction procedure. *Journal of Applied Psychology*, 1971, **55**, 22–27.

*Task:* *S*s hired at hourly pay rate for clerical work. *IV:* After working one session, *S*s' pay was decreased (underpay), increased (overpay), or left the same (control). *DV:* (1) Productivity; (2) work quality. *Results:* No significant differences between the 3 pay conditions. 27% of underpaid *S*s quit; no *S*s quit in other pay conditions.

147. Vroom, V.H. *Work and motivation.* New York: Wiley, 1964.

Equity is discussed as a determinant of job satisfaction (pp. 167–172) and of effective job performance (pp. 252–260).

148. Wahba, M.A. Preferences among alternative forms of equity: The apportionment of coalition reward in the males and females. *Journal of Social Psychology*, 1972, 87, 107–115.

Using 3-person coalition formation task, preferences for 3 forms of equity were tested: (1) equality of outcomes, regardless of inputs; (2) proportionality of outcomes according to relative inputs; (3) equality of gains after repayment of inputs. Females preferred the first, males the third form.

149. Walster, E., & Austin, W.G. Reactions to confirmations and disconfirmations of expectancies of equity and inequity. *Journal of Personality and Social Psychology*, 1974, in press.

*Task:* *S*s, expecting normal $2 pay, proofread pages, believing a second person did similar task and that a supervisor would evaluate work and distribute $4 between the 2 proofreaders. *IV:* (1) Having learned partner and he had performed equally well, *S* led to expect equitable or inequitable payment; (2) *S* equitably, over- or underpaid. *DV:* *S*s' contentment and distress as measured by Mood Adjective Check List before and after. *Results:* Equitably paid *S*s were more content than over- or underrewarded *S*s. Overrewarded *S*s were more content than underrewarded. *S*s expecting inequity were less distressed with inequity than *S*s expecting equity.

150. Walster, E., Berscheid, E., & Walster, G.W. The exploited: Justice or justification? In J. Macaulay and L. Berkowitz (Eds.), *Altruism and helping behavior.* New York: Academic Press, 1970. Pp. 179–204.

Harmdoing is discussed as producing inequity between 2 people. Theory and data are presented which predict when a harmdoer will provide restitution to a victim and when he will justify his act.

151. Walster, E., Berscheid, E., & Walster, G.W. New directions in equity research. *Journal of Personality and Social Psychology*, 1973, **25**, 151–176.

By revising, extending, and generalizing previous equity theory, the authors present a general theory of social behavior. Previous equity research is reviewed and the relationship of equity theory to other major social psychological theories is examined.

A correction to and elaboration of the equity formula presented in this paper is available from the authors.

152. Walster, E., & Piliavin, J.A. Equity and the innocent bystander. *Journal of Social Issues*, 1972, **28**, 165–189.

Discussed in the context of equity theory are how bystanders respond to emergencies involving a victim and how, in turn, victims may react to bystanders.

153. Weick, K.E. Reduction of cognitive dissonance through task enhancement and effort expenditure. *Journal of Abnormal and Social Psychology*, 1964, **68**, 533–539.

*S*s working for an experimenter who had lured them to work for no credit evaluated their task more highly than *S*s who worked for normal course credit, thus increasing their net total outcomes.

154. Weick, K.E. The concept of equity in the perception of pay. *Administrative Science Quarterly*, 1966, **11**, 414–439.

Discusses ambiguities and limitations of early formulations of equity theory and suggests extensions of the theory.

155. Weick, K.E., & Nesset, B. Preferences among forms of equity. *Organizational Behavior and Human Performance*, 1968, **3**, 400–416.

*S*s were presented with pairs of fictitious work situations in each of which they and another person were described as to wages and job. The work situations varied systematically as to type of equity comparison processes and basis of pay inequity. *S*s chose the preferred situation in each pair. *Results:* Preferences gave clear support to a social comparison model of equity, as well as evidence for differential thresholds for under- and overpayment inequity.

156. Weick, K.E., & Prestholdt, P. Realignment of discrepant reinforcement value. *Journal of Personality and Social Psychology*, 1968, **8**, 180–187.

*Task:* "Motor-coordination" marble dropping task. During the task *S*s were offered choices to receive social or monetary reinforcements. *IV:* Underpay ($0), control ($1), or overpay ($3). *DV:* (1) *S*'s choice of monetary or social reinforcement; (2) productivity. *Results:* Underpaid and overpaid *S*s were more productive than control *S*s. Underpaid *S*s showed less preference for monetary reinforcements than other *S*s.

157. Wicker, A.W., & Bushweiler, G. Perceived fairness and pleasantness of social exchange situations: Two factorial studies of inequity. *Journal of Personality and Social Psychology*, 1970, **15**, 63–75.

I. *Task:* *Ss* rated 18 2-person work situations. *IV:* (1) Person liked or disliked a co-worker; (2) was more, less or equally valuable to employer as co-worker; (2) earned more, less, or the same as co-worker. *DV:* *Ss*' ratings of fairness and pleasantness of the situation. *Results:* Fairness related to the inputs and outcomes of workers. Pleasantness ratings related to liking of co-worker.

II. *Task:* Female *Ss* and confederate worked on oral-analogies test. *IV:* (1) *Ss* received more or less money than confederate; (2) *Ss* told they had made more or fewer correct responses than co-worker; (3) co-worker made remarks to cause *S* to either like or dislike her. *DV:* *Ss*' ratings of the fairness and pleasantness of the situation. *Results:* Same as above.

158. Wiener, Y. The effects of "task-" and "ego-oriented" performance on 2 kinds of overcompensation inequity. *Organizational Behavior and Human Performance*, 1970, **5**, 191–208.

*Task:* Word manipulation, hourly pay. *IV:* (1) Equitable pay–$2 or $3; input overcompensation–*Ss* told they were unqualified but received standard pay of $2; or outcome overcompensation–*Ss* told they were qualified but received higher than standard pay, $3; (2) *Ss* told task was mental alertness test (ego-oriented) or psycholinguistic project (task-oriented). *DV:* (1) Productivity; (2) work quality. *Results:* Ego-oriented *Ss* produced more than task-oriented *Ss*. Outcome overcompensated *Ss* produced more than equitably paid *Ss*. Input overcompensated *Ss* produced more than equitably paid *Ss* in ego-oriented condition, but not in task-oriented condition.

159. Wilke, H., & Lanzetta, J.T. The obligation to help: The effects of amount of prior help on subsequent helping behavior. *Journal of Experimental Social Psychology*, 1970, **6**, 488–493.

*Task:* *Ss* allocated trucks and railroad cars for shipping goods for 40 trials. *Ss* worked in pairs and believed they could help each other. *IV:* *S* was helped 0, 2, 4, 6, 8, or 10 times during the first 20 trials, 10 of which could be completed without help. *DV:* *S*'s responses to partner's 10 requests for help in second block of 20 trials. *Results:* Help-giving was proportional to prior help received.

160. Wilke, H., & Steur, T. Overpayment: Perceived qualifications and financial compensation. *European Journal of Social Psychology*, 1972, **2**, 273–284.

*Task:* Dutch *Ss* decoded personality questionnaires, hourly pay. *IV:* (1) *Ss* told they had low, medium or high qualifications; (2) overpaid or equitably paid. *DV:* (1) Productivity; (2) work quality. *Results:* Overpaid and equitably paid *Ss* did not differ in productivity and work quality. Low qualified *Ss* produced more.

161. Wood, I., & Lawler, E. E. Effects of piece rate overpayment on productivity. *Journal of Applied Psychology*, 1970, **54**, 234–238.

*Task:* *Ss* read articles aloud, piece rate pay. *IV:* *Ss* told they were qualified or underqualified for task. *DV:* (1) Amount of time *S* read aloud; (2) quality as

determined by *S*s' choice of difficult or easy articles to read. *Results:* Overpaid *S*s produced less than equitably paid *S*s. Lower productivity could not be attributed to striving for higher quality.

162. Wyer, R.S., & Malinowski, C. Effects of sex and achievement level upon individualism and competitiveness in social interaction. *Journal of Experimental Social Psychology,* 1972, 8, 303–314.

*Task:* Pairs of *S*s first participated in achievement task, received feedback on their performance, then interacted in a series of 2-person game situations. *IV:* (1) Same or different sex pairs; (2) negative or positive feedback on achievement task performance. *DV:* (1) *S*'s response choices in 2-person games; (2) *S*'s perception of partner as friendly and competitive. *Results:* For pairs of same sex, *S*s' response choices reduced inequities in outcomes.

163. Yuchtman, E. Reward distribution and work-role attractiveness in the Kibbutz - Reflections on equity theory. *American Sociological Review,* 1972, 37, 581–595.

Questionnaires were used to measure reward distribution and work-role attractiveness of managers and workers in 26 Kibbutzim. *Results:* Managers received more intrinsic job satisfaction and power-related rewards but were less attracted to their jobs than workers. The findings are explained by equity theory.

164. Zaleznik, A., Christensen, C.R., & Roethlisberger, F.J. *The motivation, productivity and satisfaction of workers.* Boston: Harvard University, 1958.

The theory of distributive justice is discussed in detail on pp. 50–56 and 291–321, together with a number of illustrative cases.

165. Zaleznik, A., & Moment, D. *The dynamics of interpersonal behavior.* New York: Wiley, 1964.

The concepts of distributive justice and relative deprivation are discussed in the context of job satisfaction on pp. 395–399.

166. Zedeck, S., & Smith, P.C. A psychophysical determination of equitable payment: A methodological study. *Journal of Applied Pschology,* 1968, **52,** 343–347.

An adaptation of the Method of Limits protocols were administered to junior executives and secretaries in a large midwestern academic institution to determine perceived equitable payment and just meaningful difference of payment. *Results:* Perceived equitable payment and just meaningful difference were greater for executives than secretaries.

167. Zelditch, M., Berger, J., Anderson, B., & Cohen, B.P. Equitable comparisons. *Pacific Sociological Review,* 1970, **13,** 19–26.

Discusses equity comparisons. In "local" comparisons, a person compared himself with a particular person. In "referential" comparisons, a comparison is made in the context of a stable frame of reference.