Equity With The World:

The Trans-Relational Effects

of Equity and Inequity*

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Traditional equity theory assumes that individuals attempt to maintain "Person-specific Equity." Austin (1974) proposes that individuals are also concerned about the amount of net equity they receive across relationships, and that people try to maintain both "Person-specific Equity" and "Equity with the World" (i.e., equity across several relationships).

On this basis, we hypothesized that individuals sometimes will sacrifice "Person-specific Equity" in order to achieve "Equity with the World." In Situation 1, subjects were overrewarded, equitably rewarded, or underrewarded, relative to their partner. Both under- and overrewarded subjects thought their reward was more unfair and felt more distressed than did equitably rewarded Ss. In Situation 2, Ss were given a chance to distribute rewards between themselves and a second partner. As predicted, underrewarded subjects showed a strong tendency to sacrifice person-specific equity in order to maintain equity with both partners; overrewarded subjects showed a weaker tendency to sacrifice person-specific equity by giving their partner more than she deserved; and subjects were likely to sacrifice person-specific equity in order to maintain trans-relational equity only when their second partner could not hold them accountable.

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How do persons react when they are treated unfairly? The equity theories (cf. Homans, 1961; Adams, 1965; Walster *et al.*, 1973) provide a straightforward answer to this question: injustice has both emotional and behavioral consequences.[1] The basic thesis of equity theory is that individuals involved in an inequitable relationship experience distress, which in turn motivates them to reestablish equity. Several studies demonstrate that both over-benefited and under-benefited individuals experience distress (Pritchard *et al.*, 1972; Austin and Walster, 1974a). Other research demonstrates that inequitably treated persons also respond˙ in deed: overrewarded individuals frequently try to restore equity by voluntarily compensating their partners (Berscheid and Walster, 1967; Schmitt and Marwell, 1972); underrewarded individuals often try to restore equity by demanding restitution (Leventhal and Bergman, 1969) or by retaliating against the "harmdoer" (Berscheid *et al.*, 1968; Ross *et al.*, 1971).

Equity Comparisons

Researchers in this area have concentrated on testing equity theory in the relatively circumscribed settings for which it was designed, collecting evidence on how various types of situational variables alter individuals' behavior. Despite these advances, however, equity theory suffers from a crucial shortcoming: a paucity of

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[1] According to Equity theory, a relationship is equitable when all participants possess equal outcome/input ratios. Walster *et al.* (1973) provide a precise mathematical formula for calculating "Equity." Two persons are said to be in an equitable relationship when:

$$\frac{(\text{Outcomes} - \text{Inputs}) \text{ Person A}}{|\text{Inputs Person A}|^{k_A}} = \frac{(\text{Outcomes} - \text{Inputs}) \text{ Person B}}{|\text{Inputs Person B}|^{k_B}}$$

The exponents k_A and k_B simply take on the value of $+1$ or -1, depending on the sign of A and B's inputs and the sign of their gains (Outcomes $-$ Inputs). k_A = sign (I_A) x sign $(O_A - I_A)$ and k_B = sign (I_B) x sign $(O_B - I_B)$. The exponents' effect is simply to change the way relative outcomes are computed. If k = $+1$, then we have $\frac{(O_A - I_A)}{I_A}$, but if k = -1, then we have I x (O$-$I). Without the exponent k, the formula would yield meaningless results when I $<$ zero and O$-$I $>$ zero, or I $>$ zero and O$-$I $<$ zero.

research on the comparison processes involved in the perception of inequity.

Equity theorists have identified two types of equity comparisons. The first is usually labeled Reference Group comparisons (Merton, 1957) or Referential comparisons (Zelditch et al., 1970). Referential comparisons may occur whenever an individual attempts to determine the fairness of outcomes derived from any relatively permanent relationship such as a job, marriage, or any other stable role. To paraphrase Zelditch et al. (1970), when a person believes that his status is a relevant input which entitles him to some degree of benefit, referential comparisons are drawn. Under these circumstances, the individual should compare himself with persons of similar status (e.g., other carpenters, or other college professors, or other husbands). Zelditch et al. predict that participants will be satisfied with a relationship only if their outcomes are at least equal to the level of outcomes which currently accrue to the appropriate reference group.

The second type of equity comparison is the Person-Other comparison associated with the theories of Homans (1961) and Adams (1965). This comparison refers to comparisons made by a participant (Person) to others in the *immediate situation* who are in some way linked to an ongoing relationship with Person. According to this model, Person will initially compare his outcome/input ratio directly with a partner following an interaction with him, or after they have mutually interacted with a common third party (e.g., an employer). However, Person may also use other dyads to determine the fairness of his current relationship.

The purpose of this paper is to extend the Person-Other conceptualization of equity comparisons to the case of multiple relationships and thereby identify a third type of comparison: Trans-relations equity comparisons. A basic weakness of the research stemming from the Person-Other equity model is that researchers have almost always focused on subjects' behavior in a single situation, or, occasionally, in a single relationship in a variety of situations. Researchers have never studied subjects' behavior in a number of co-existing relationships in a variety of situations. A second shortcoming in this research paradigm is that the central thesis of equity theory has never actually been demonstrated in a single study. In *isolated* experiments, equity researchers have shown, that inequity produces distress and that persons act to eliminate inequity. Researchers have *never* demonstrated that inequity produces distress which motivates a person to act to eliminate the

inequity (whether in the primary relationship or in subsequent relationships).

The following experiment was designed to explore these shortcomings in equity research. We set out to determine if a given inequity affects an individual's behavior in subsequent relationships, and whether this "trans-relational equity behavior" is mediated by perceptions of fairness and satisfaction.

Trans-Relational Effects of Inequity

Should the injustices an individual suffers at the hands of one person affect his behavior toward another person in an entirely different situation? The Person-Other equity theories (cf. Walster *et al.*, 1973) would say no. By definition, the equitableness of a given relationship depends entirely on how much Participants A and B contribute to the AB relationship and how much they get out of it. If Person A is exploited by Person B, he cannot restore equity to the AB relationship by exploiting Person C, who is not responsible for the inequity. Such an exploitative act would only create a second inequitable relationship, this time with Person C.

On the surface, the preceding argument is a compelling one. However, Austin (1974) and Walster *et al.* (1970)[2] point out that such analysis is deceptively simple. They observe that to predict Person A's reaction to equity or inequity, one must specify (1) who Person A perceives himself to be in a relationship with, and (2) how A evaluates his own and his partner's inputs and outcomes. The experimenter may agree that Participant A is in separate relationships with Person B and C. Unfortunately, Participant A may disagree. He *may* compare himself with the "appropriate" partner (B or C)—but then again he may recalcitrantly insist on comparing himself with both partners (B *plus* C) at once, or with "others in general." If Person A does choose to ignore the partner with whom *we* think he should compare himself, and chooses instead to compare himself with a different person or collection of persons, then equity theory must make trans-relational predictions.

"Equity with the World": A Definition

Thus, the possibility exists that a person's equity behavior may be determined (1) by his relative standing compared to that of his partner in the immediate situation, (2) by his relative standing in a

number of different relationships (i.e., "the world"), or (3) by both. "Equity with the World" (EwW) is defined as "the degree of equity present in the *totality* of a person's relationships" during a given period of time[3]. EwW should not be confused with "reference group comparisons"—those comparisons a person makes with some collectivity so that he may ascertain how equitable a given relationship is. In contrast, determination of EwW requires an individual to calculate the separate outcome/input ratios in each of his relationships *and* to make a subsequent global assessment of the amount of net equity which exists *across relationships* for a given period of time. Like other equity comparisons, EwW is thus embedded in the social comparisons a person makes. However, unlike other equity comparisons, trans-relational comparisons *always* incorporate a time dimension.

An example from the Kerner Commission Report (1968) on civil disorders may help to clarify the EwW construct. Two facts emerge from the Commission's insightful analysis of the looting which took place during urban riots in cities such as Detroit and Newark: (1) the vast majority of looters had no previous criminal records; (2) participants felt justified in stealing merchandise because of the past hardships and deprivations they had endured. Undoubtedly, looting was the product of many causal factors, but the Commission's report strongly suggests that the specific inequitable acts of looting were due, in part, to a desire to restore "Equity with the World." Participants apparently were able to "block off" the specific consequences of their acts and to "neutralize" their felt responsibility to behave equitably toward storeowners by concentrating on EwW.

EwW: The Evidence and Competing Explanations

Let us compare EwW with related concepts and research: Does EwW cover any new conceptual territory? Does EwW adequately account for old, established relationships? Does EwW explain new ones?

The authors have conducted two previous studies which lend credibility to the EwW construct (Austin *et al.*, 1973 and Austin and Walster, 1974b). This research demonstrated that both observers and

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[3] At first glance, the EwW hypothesis and Lerner's popular Just World hypothesis may appear to be similar concepts. However, on closer inspection it is difficult to determine what type of trans-relational predictions Lerner's model would make. The reader is referred to Austin and Walster (1974b) for a more complete discussion on this point.

participants were exceedingly tolerant of either an exploiter's or a victim's attempts to sacrifice person-specific equity in order to restore EwW. Austin *et al.* (1973) asked grade school children to read stories regarding a hypothetical peer's experiences. Inequitable behavior (underreward *and* overreward) was rated as more fair and less distressing for participants when it was apparent that it restored EwW for one of the participants. Austin and Walster (1974b) reported a parallel finding from an experiment with adults. In this study, under- or overrewarded college students reported less distress and more attraction to their partner if they could interpret their partner's inequitable action to an attempt to restore EwW than if they could not. Taken together, these two studies demonstrate that children and adults can sympathize with EwW behavior.

The purpose of the present experiment is to determine whether persons actually do attempt to maintain both person-specific and EwW. If they do, we also hope to explore some of the conditions that predispose people to focus on one or the other form of equity.

To our knowledge, no one has yet experimentally documented that underrewarded persons strive to maintain EwW; however, a substantial body of research indicates that overrewarded individuals do. In a series of studies on the topic of "transgression and compliance," (Darlington and Macker, 1966; Freedman *et al.*, 1967; Carlsmith and Gross, 1969) subjects were first led to believe they had unintentionally harmed another. They then had an opportunity to help the victim or someone other than the victim. These researchers uniformly found that harmdoers were especially likely to help others—victim or not. Freedman *et al.* (1967) and Carlsmith and Gross (1969) found that although "guilty" subjects were somewhat reluctant to help the victim (presumably because they were ashamed to face him) they were extremely eager to help others. A similar line of research (Berkowitz and Daniels, 1964; Goranson and Berkowitz, 1966; Greenglass, 1969; Regan *et al.*, 1972) found that previously helped subjects (who were unable to give reciprocal aid to the help-giver) show a greater proclivity to help someone else. Although these researchers have offered a variety of possible explanations for these behaviors (e.g., social responsibility norm, modeling, reduction of emotional arousal, affirming a belief in a just world), their results can be interpreted in terms of individuals attempting to restore EwW.

Possible Determining Conditions

Person-specific equity should naturally be the preferred mode of response in any given situation. If an individual maintains equity in

each of his relationships, then he insures the best of both worlds by achieving person-specific equity and equity with the world. However, when person-specific inequities arise which cannot be rectified, then a person is forced to decide whether he is willing to sacrifice the equitableness of one or more other relationships in order to restore EwW.

Several factors would seem to be potentially important in determining when a person should prefer EwW. (1) *Similarity:* A person may be more prone to engage in EwW behavior when there is a high degree of similarity between his exploiter or benefactor and an individual with whom he subsequently interacts. Greenglass (1969) found that previously victimized subjects were less likely to help a needy person who was similar to his original harmdoer than one who was not. (2) *Cost of Restoring Person-Specific Equity:* In some instances a victimized or over-benefited person may be able to restore equity with the responsible party, but the individual may feel he will lose more than he gains through a confrontation with the responsible party. (3) *Accountability:* This factor refers to the costs associated with EwW behavior. If a person feels that a second partner will retaliate for restoring EwW at his expense, then this individual should settle for person-specific equity. Or, if the participant thinks that his new partner will be embarassed by receiving more than he deserves, this should also deter EwW.

A body of research supports this last contention. This literature suggests that Accountability increases one's concern over self-pre-sentation and motivates individuals to adhere to socially dominant norms. For example, Shapiro (1975) and Wiggins (1966) found expectation of future interaction with a partner dictated whether subjects followed a norm of equity or equality in allocating rewards. Stokols and Schopler (1973) discovered that the commonly found "just world effect" of observer derogation of a victim occurred only when the subject did *not* expect future interaction with the victim. Leventhal *et al.* (1972) found that reward allocations were more apt to be inequitable if they were secret. The role of Accountability in EwW behavior is also congruent with traditional equity theory (Walster *et al.*, 1973) which states that persons strive for person-specific equity only when it will maximize their rewards. Under conditions of Low Accountability, it may often be in the best interest of persons to behave inequitably (*vis à vis* Person C). It is under conditions of little or no accountability that we should have the best chance to observe EwW behavior. Several theories, then, predict that persons should focus on person-specific equity when Accountability is high. When Accountability is high, a person should

experience fear of retaliation when he contemplates sacrificing his second partner and embarassment when he contemplates over-rewarding him.[4]

Experimental Overview

Trans-relational equity behavior can be studied via a simple experimental paradigm: (1) The subject (Person A) interacts with Person B. A is either underrewarded, equitably rewarded, or overrewarded by Person B. (2) Person A cannot restore equity to the AB relationship. (3) Person A then interacts with Person C in a second situation. A is given a chance to underreward, equitably reward, or overreward Person C.

If subjects are motivated by person-specific equity considerations, they should distribute rewards equitably in the second situation, regardless of how their original partner treated them. If subjects are trying to restore "equity with the world," they should distribute rewards unequally. Previously underrewarded subjects should take more than they deserve from Person C while previously overrewarded subjects should give their partner more than he deserves.

Predictions

This experiment was designed to test five specific hypotheses.

Hypothesis 1: Persons who are equitably rewarded in situation 1 will be more satisfied than persons who are underrewarded or overrewarded in situation 1.

Hypothesis 2: Persons who are overrewarded in situation 1 will be more satisfied than persons who are underrewarded in situation 1.

Hypotheses 1 and 2 are derived directly from equity theory (cf. Walster *et al.*, 1973) and are designed to replicate earlier findings (Austin and Walster, 1974a; 1974b).

Hypotheses 3 and 4 test the idea that inequity produced distress will have trans-relational effects.

Hypothesis 3a: Persons who are equitably rewarded in situation 1 will allocate rewards equitably in situation 2.

Hypothesis 3b: Persons who are underrewarded in situation 1 will overreward themselves in situation 2.

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[4]Support for the hypothesis that overrewarding an undeserving partner fosters embarassment comes from Gergen *et al.* (1975) who found that unsolicited help is socially disapproved.

Hypothesis 3c: Persons who are overrewarded in situation 1 will underreward themselves in situation 2.

Hypothesis 4: Underrewarded persons will show stronger trans-relational effects than will overrewarded persons.

Hypothesis 5: The amount of trans-relational equity behavior (EwW effect) the subject displays will be an inverse function of his Accountability to his partner in Situation 2. Subjects should display weak EwW effects when they expect to be held accountable for their person-specific actions. They should display strong EwW effects when they cannot be held accountable for their actions.

METHOD

Design

Our five predictions were tested via a 3 x 3 factorial design. The manipulated variables were Reward Received in Situation 1 ($1, $1.50, or $2) and subject's Accountability for his actions in Situation 2 (high, low, or none). Subjects were 135 University of Wisconsin undergraduate women.

Procedure in Situation One

When the subject reported to the experimental room she encountered a fellow subject (actually a confederate) who was already seated in the waiting room.

The experimenter then provided both participants with a general cover story for the experiment. He explained that he was interested in decision making, specifically, in how persons make decisions in business and industry. By studying decision making in the laboratory, under controlled conditions, he hoped to come to better understanding of the process. He then sketched the task on which the subjects were to work. He explained that there were two positions—that of a "worker" and that of a "worker/decision maker." Both subjects would be asked to be *workers* on a simple Anagram task. They must make as many words as possible in 10 minutes out of the name "George Washington." The experimenter would score the Anagram tasks and tell them how well they had done.

One of the subjects would be asked to serve as a *decision maker* as well as a *worker*. After the experimenter had scored the Anagram tasks, he would give the decision maker $3 to distribute between herself and her fellow worker on the basis of their task performance.

Then the experimenter would ask each of them to evaluate the decision maker's decision.

Then the experimenter asked the real subject to draw a slip of paper from an envelope to determine which one of them would be the decision maker/worker and which would be the worker. Invariably the slip designated the confederate as decision maker.

Manipulation of Reward Received

The subjects were then ushered into separate rooms so that they could work on the Anagram task. After 10 minutes, the experimenter collected their word list and scored it. He then informed the subject that she and her partner had obtained almost identical scores (i.e., their inputs were equal). The subject was told her true score (usually subjects formed 20-22 words); the decision maker was said to have correctly formed one word less.

Our first independent variable was then manipulated. One-third of the subjects were informed that the decision maker had decided to underreward her (i.e., pay her only $1); one-third were told they would be equitably rewarded ($1.50)[5]; and one-third were told they would be overrewarded ($2). The experimenter showed the subject a card with the distribution of money written on it, announced the amount, and paid her.

Questionnaire Responses

Subjects were then asked to evaluate the decision maker's decision via a questionnaire. These questions were designed to check the effectiveness of the Equity/Inequity manipulations and to test the hypothesis that equitably treated subjects would be more satisfied (and less distressed) than inequitably treated ones. Thus, the subject was asked how fair the decision was and how satisfied and happy or how angry she felt. As soon as the subject finished filling out her questionnaire, the experimenter announced the experiment was over.

Procedure in Situation Two

The experimenter then asked the subject if she would be willing to participate in a second experiment. He explained that he was trying

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[5] Previous research has shown that when participants perform very similarly on a task, they assume that they deserve to be paid equally for their work. Austin and Walster (1974a) found that in this experimental setting, students assume they each deserve $1.50 for their work.

to run several decision making experiments in a limited amount of time. An experiment similar to the one in which the subject had just participated was scheduled this hour just across the hall, but only one of the two scheduled participants had shown up. Thus, the experimenter asked the subject to help out in that experiment too. If the subject consented to be in the second experiment (and all but two subjects did), the experimenter escorted her to another room and introduced her to her partner (who was actually participating in a separate experiment) and "reoriented" her. He explained that this experiment would be run in the same way as the first one, in all respects save one—Accountability.

Manipulation of Accountability

The subject drew a slip, which was rigged to guarantee· that she would be the decision maker in the second experiment. The experimenter then proceeded to manipulate the second independent variable, Accountability, by manipulating the possible implications of the decision maker's decision. High Accountability subjects were told that she and the worker would discuss her decision at the end of the experiment. Low Accountability subjects were told that their (anonymous) decision would be discussed by subjects in a subsequent experiment. No Accountability subjects were told nothing.

From this point on, the experiment proceeded exactly as had the first. The subjects worked ten minutes on a second Anagram task; "Mississippi" was the key word. The experimenter collected and scored the task. The subject was told that she and her partner had secured identical scores. (If the subject expressed surprise at this "coincidence" she was told the task was so easy that subjects often obtained similar or identical scores.)

The Dependent Measure

The experimenter asked the subject to decide how the $3 should be split. The amount of money which the subject kept for herself served as the dependent variable.

Finally, the subject was asked to complete a second questionnaire. When the experimenter gave out the questionnaire, he said: "Since you were in two experiments, I have to give you a special questionnaire. This happens every now and again so we have a standard form made up. Remember, be honest since the information is absolutely anonymous and confidential."

This questionnaire was designed to assess the plausibility of several

possible explanations for any Equity with the World effects. Prior to debriefing, we checked the effectiveness of the Accountability manipulation. We asked, "Before you made your decision, how accountable for your actions did you feel?" We also checked on subjects' suspiciousness during the post-experimental interview. (Ss responded to a Likert-type question on whether anything during the experiment aroused suspiciousness.) Five subjects were quite suspicious—but none of them were aware of the experimental hypotheses; nor did they question the reality of the other subjects or the two experiments. The relatively small number of suspicious subjects is understandable since none of the subjects had participated in more than one other experiment.

RESULTS AND DISCUSSION

Hypothesis 1 stated that equitably rewarded persons would be more satisfied (and less distressed) than either underrewarded or overrewarded persons. Hypothesis 2 stated that persons would be more satisfied (or less distressed) when they were overrewarded a given amount than when they were underrewarded the same amount.

Effectiveness of Reward Manipulation

Our first step was to determine whether the Reward manipulation was effective. On the first questionnaire, subjects were asked, "How fair was the decision by the decision maker?" If our manipulation was successful, equitably paid persons should rate their reward as more fair than do over-paid or under-paid persons. The data indicate that our manipulation was effective. Scheffé contrasts[6] reveal that equitably paid subjects felt that they were more fairly paid than did either over-paid subjects ($F = 26.5$, df = 2/132, $p < .001$) or under-paid subjects ($F = 105.00$, df = 2/132, $p < .001$).

Reward Received

In order to contrast the reactions of equitably rewarded subjects with those of underrewarded and overrewarded subjects, we constructed three scales:

(1) Subjects' perceptions of the Fairness of the decision maker's payment: "How fair was the decision by the decision maker?"

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[6] For an explication of this procedure see Kirk (1968). The significance levels (α) reported here are based on a familywise error rate per dependent measure.

tapped subjects' cognitive reactions to Reward Received.

(2) Two scales were designed to measure subjects' emotional reactions to Reward Received. (a) *Subject's Satisfaction/Distress:* "How satisfied are you with the decision?" and "How happy are you with the decision?" (b) *Subject's Anger:* "How angry are you with the decision?"

Hypothesis 1: The data strongly support the hypothesis that equitably rewarded participants will be more satisfied than either over- or underrewarded participants. Scheffé contrasts reveal that more equitably rewarded subjects judged the payment to be fair than did inequitably treated subjects ($F = 158.17$, df = 2/132, p $<$ .001). Individual contrasts yield comparable results: more equitably treated subjects indicated that the decision maker's treatment was fairer than did either underrewarded subjects ($F = 105.55$, df = 2/132, p $<$ .001) or overrewarded ones ($F = 26.50$, p $<$ .001).[7]

Equitably treated subjects were also more Satisfied than were participants who were overrewarded or underrewarded, i.e., the appropriate Scheffé contrast was significant ($F = 92.82$, df = 2/132, p $<$ .001). Individual contrasts are consistent with this contention: equitably treated subjects were significantly more satisfied than either overrewarded subjects ($F = 12.71$, df = 2/132, p $<$ .01) or underrewarded ones ($F = 76.04$, df = 2/132, p $<$ .001). Finally, a Scheffé contrast indicates that equitably treated subjects were less angry than were underrewarded subjects ($F = 101.00$, df = 2/132, p $<$ .001).

Hypothesis 2 proposed that persons who were overrewarded a specified amount would be more satisfied than persons who were underrewarded the same amount. Once again, the data strongly support this hypothesis. Persons who were overrewarded 50¢ were more satisfied with their payment than were persons underrewarded 50¢ (the Scheffé contrast was significant; $F = 26.67$, df = 2/132, p $<$ .001).

Over-paid subjects were also less angry than were underrewarded subjects ($F = 21.16$, df = 2/132, p $<$ .001). In summary, as Table 1

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[7] A supplemental "Evaluation of Partner Scale" was also included on the Situation 1 questionnaire. Two items indirectly assessed *S*s' cognitive evaluations of their reward: "How well suited was the decision maker for his job?" and "Would you hire her for a vacant supervisory job?" Inequitably paid *S*s evaluated their partner less highly than did equitably paid *S*s (p $<$ .001) and over-generous partners were rated more favorable than were exploitive decision makers (p $<$ .001).

TABLE 1

*Subjects' Reactions to Reward Received
in Situation One*

Reward Received	Fairness Scale*	Satisfaction Scale*	Anger Scale**
$1	1.42	3.16	1.82
$1.50	3.47	6.87	3.56
$2	2.44	5.27	3.44

*The higher the score, the *more* fair and the *more* satisfied the subject is.
**The higher the score, the *less* angry the subject is.

indicates, Hypotheses 1 and 2 receive strong support both in previous equity research and in this conceptual replication. Equitably rewarded persons are more satisfied with their lot than are either overrewarded or underrewarded subjects. Also, as predicted, of the two inequitably paid groups, over-paid subjects are more satisfied than under-paid subjects.

TRANS-RELATIONAL BEHAVIOR

Person A was overrewarded, equitably rewarded, or underrewarded in Situation 1. Then she entered a second situation where she was allowed to distribute $3 between herself and a new partner. If traditional equity theory is correct, and subject's equity behavior is person-specific, then subjects should divide the $3 equally between themselves and their new partner. However, if subjects are attempting to maintain equity with others in general, previously underrewarded subjects should take more than $1.50, while overrewarded subjects should take less than $1.50 for themselves.

Reward Allocation

Table 2 indicates that trans-relations behavior occurred. The more money the subject received in Situation 1, the less she took for herself in Situation 2. An analysis of variance yielded a significant main effect for Reward Received in Situation 1 ($F = 49.92$, df = $2/126$, $p < .001$). Subjects who were underrewarded in Situation 1, and who were unlikely to be held accountable for their actions, took more money in Situation 2 than did equitably rewarded subjects (the Scheffé contrast is significant; $F = 8.23$, df = $8/126$, $p < .01$). Subjects who were overrewarded in Situation 1 showed a slight

TABLE 2

Money Allocated to Self*

Accountability in Situation 2	Reward in Situation One			
	$1	$1.50	$2	Average
High	$1.51	$1.50	$1.49	$1.50
	(2)	(0)	(2)	(4)
Low	$1.64	$1.51	$1.46	$1.53
	(10)	(2)	(8)	(20)
None	$1.72	$1.51	$1.44	$1.56
	(12)	(3)	(9)	(24)
Average	$1.63	$1.51	$1.46	
	(24)	(5)	(19)	

*Numbers in parentheses indicate the number of Ss who deviated from an equitable reward distribution.

tendency to take less reward for themselves than did equitably rewarded subjects, but this contrast is *not* significant ($F = 1.03$, df = 8/126). Hypotheses 3a and 3b, then, receive support, but 3c is not supported.

Given the meager amount of trans-relational behavior displayed by overrewarded subjects, "How well does the EwW concept explain the data?" When we examine the *frequency* of subjects' trans-relational behavior (see Table 2) the EwW hypothesis remains plausible for overrewarded as well as underrewarded individuals. In Low and No Accountability conditions, more than half of those subjects previously overrewarded took *less* money for themselves in Situation 2 (overrewarded vs. equity: $F = 26.67$, df = 8/18, $p < .001$). Underrewarded subjects show even stronger trans-relational effects. Between two-thirds and three-fourths of these subjects took *more* than they deserved. The appropriate contrasts between underrewarded and equitably rewarded subjects in Low and No Accountability is highly significant ($F = 60.42$, df = 8/18, $p < .001$)[8]. These tests

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[8] These Scheffé contrasts were computed on "grouped" frequency data. We randomly formed three groups of five observations in each cell from the original 15 observations. Each group mean was then treated as an independent observation thus reducing our degrees of freedom for the error term from 126 to 18. The Mean Square Error was then used in computing the Scheffé comparisons. This procedure was followed in order to more adequately meet the assumptions of the linear model (e.g., normality and homogeneous variances).

make it clear, then, that a substantial number of previously overrewarded subjects engaged in EwW behavior. However, it is also apparent from previous analysis (of the *amount* of money allocated to self) that overrewarded subjects are less eager than underrewarded subjects to deviate from "person-specific equity."

Three factors present in the experimental situation may help to explain why previously overrewarded persons show relatively smaller EwW effects. First, as Hypotheses 1 and 2 show, overrewarded persons are less upset by inequity than underrewarded ones. Equity researchers have consistently found beneficiaries less sensitive to inequity than victims (see Pritchard, 1969). We should expect this finding to apply to EwW behavior as well. Second, research has shown that individuals are more likely to rectify injustice if they entertain a sense of responsibility (see Schwartz, 1973). In this experiment, subjects overrewarded in Situation 1 should have felt only a limited amount of responsibility for their "good fortune" since they had no control over the reward distribution. Finally, the fact that overrewarded subjects agreed to "help" the experimenter by consenting to be in a second experiment, may have attenuated their need to engage in trans-relational behavior.

Hypothesis 4 proposed that inequitably overrewarded subjects would be less inclined to show trans-relational behavior than inequitably underrewarded subjects would be. A third contrast confirms the fact that underrewarded subjects did take more money than overrewarded subjects gave away ($F = 5.0$, df = 8/126, $p <$ .025).

In Hypothesis 5 we began to explore some of the possible limiting conditions for trans-relational equity effect. We proposed that persons would be more likely to show trans-relational equity effects when they did not expect to be held accountable for their selfish or excessively benevolent behavior. In order to test this hypothesis, we first had to ascertain whether or not our accountability manipulation was effective.

How accountable subjects felt for their decisions was assessed just prior to debriefing: "Before you made your decision, how accountable for your actions did you feel?" The data confirmed a suspicion that we began developing during the course of the experiment. High accountability subjects did feel highly accountable for their decision ($\overline{M} = 3.84$). However, both No *and* Low accountability subjects felt they would not be held accountable for their decision ($\overline{M}_{None} = 1.27$ and $\overline{M}_{Low} = 1.84$). Scheffé contrasts verify this conclusion. High and Low accountability do differ in their

perceptions of how accountable they are for their actions ($F = 5.0$, df = 8/126, $p < .025$). Low and No accountability subjects do not ($F < 1.0$, df = 8/126). On the basis of this analysis, we would expect both Low and No accountability subjects to show strong trans-relations equity effects and High accountability subjects to show weak or no trans-relational equity effects.

The Reward Received x Accountability Interaction

As Figure 1 indicates, Hypothesis 5, which proposed that Reward Received and Accountability would interact in determining the extent to which subjects manifested trans-relational equity responses, is supported (Interaction $F = 11.35$, df = 4/126, $p < .001$). When subjects think they will not be held accountable for their actions, they are quite willing to sacrifice an equitable relationship with their partner in order to maintain trans-relational equity. When they expect to be quizzed by their partner after the decision, however, they are reluctant to produce a person-specific inequity.

From Figure 1, it is evident that this significant interaction is produced by the strong reaction of the underrewarded subjects. Subjects who were underrewarded in Situation 1 (and who will not be held accountable for their actions) are far more eager to restore equity with the world than are comparable subjects who were overrewarded in Situation 1. For example—when we contrast the responses of underrewarded subjects and equitably-treated subjects, we secure a significant Reward Received x Accountability interaction. The Scheffé contrast is significant ($F = 5.89$, df = 8/126, $p < .025$). When we contrast the responses of the overrewarded and the equitably-treated subjects, we do not secure a significant Reward Received x Accountability interaction (i.e., a comparable Scheffé contrast; $F < 1.0$, df = 8/126).

In order to supplement our data analysis and to determine how large the trans-relational effects were, therefore, we calculated a measure of association, R^2. When Reward Received was entered into a regression equation (see Cohen, 1968) it accounted for 34.3 per cent of the variance. When Accountability was added to the regression model, it explained only an additional 4.2 per cent of the variance. Although this increment is significant ($p < .01$) it is clear that Reward is our major factor. The interaction between these two factors increases R^2 to .53, which indicates that the influence of accountability is mainly through an interaction with Reward.

In summary, then, Hypotheses 3-5 receive some support. It is

evident that underrewarded persons are far more eager than overrewarded persons to restore trans-relational equity. As predicted, under conditions of No or Low Accountability, they revealed substantial trans-relational effects.
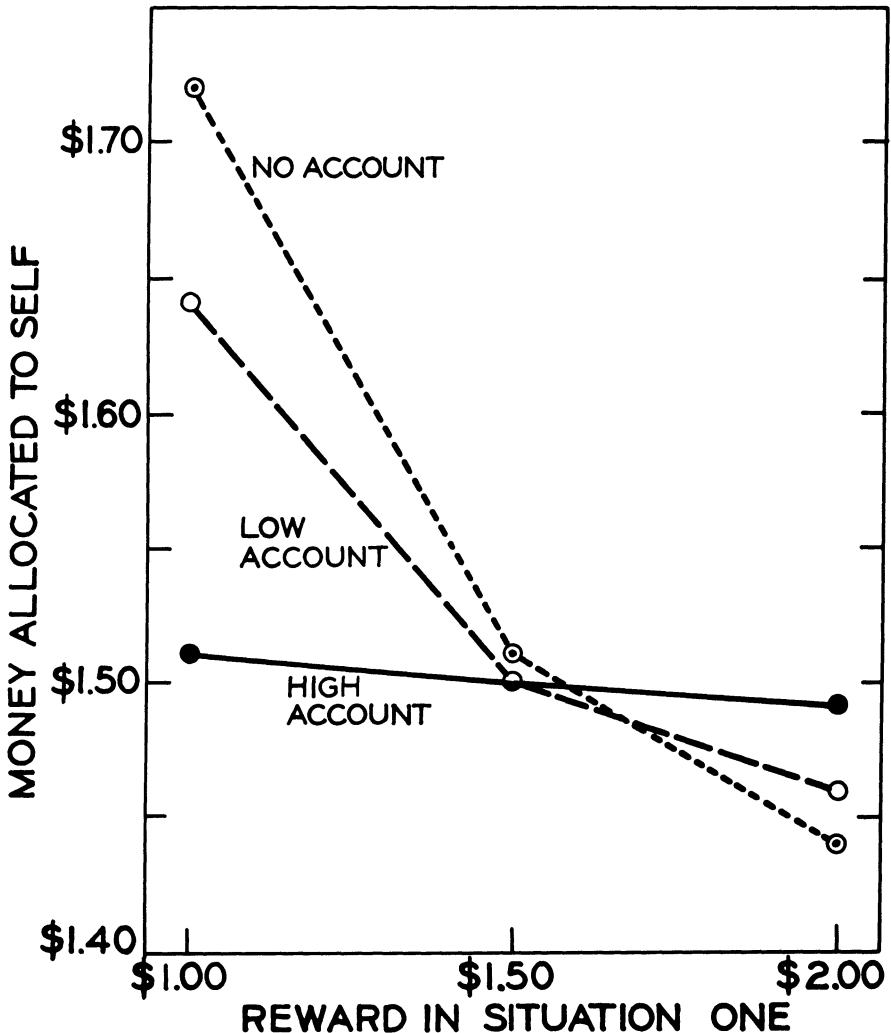

FIGURE 1

The impact of Reward Received and Accountability on subject's
allocation of money to self in Situation Two

Alternative Explanations

In an attempt to gather additional information regarding alternative explanations, a second questionnaire was administered after the Situation 2 reward allocation. With full knowledge that *post hoc* reports concerning behavioral motives are of questionable validity, we asked subjects to what extent modeling, reduction of emotional arousal and EwW influenced their behavior.

Modeling. The perennial skeptic might take the position that what we have labeled EwW behavior can be re-labeled as "modeling effects." We believe that the EwW model is not seriously challenged by a "modeling" explanation. Modeling is a facilitative explanation, not a substantive one. Undeniably, altruistic models facilitate altruism (cf. Bryan and Test, 1967). However, theory and data suggest that individuals do not blindly mimic the actor (Bandura, 1971).

Subjects were asked to what extent the decision maker served as a useful model. We anticipated that subjects would uniformly rate modeling as a minor influence on their behavior. This expectation was disconfirmed. Subjects who were equitably rewarded reported a substantial modeling effect: $\overline{M}_{\$1.50} = 3.17$ on a 4-point scale. Subjects who were treated unfairly in Situation 1 admitted to only a small to medium influence: $\overline{M}_{\$1} = 1.77$; and $\overline{M}_{\$2} = 2.35$. A contrast confirmed that subjects receiving \$1.50 were significantly more influenced by modeling than subjects paid \$1 or \$2 ($F = 8.44$, df = 8/126, $p < .01$). Of course, the modeling hypothesis does not predict the Reward Received x Accountability interaction which we predicted and secured.

A variation of the modeling explanation is that the trans-relational effects of inequity is due to "demand characteristics." This position argues for the possibility that the behavior of the first partner defined the situation in such a way that \$1 subjects would take more for themselves in situation 2 because it was the "appropriate" thing to do. Conversely, overrewarded (\$3) subjects would take less. Although we cannot completely rule out this possibility, the demand explanation leaves unanswered the question of why most of the \$1 subjects fell short of *completely* duplicating the actions of their first partner. The same shortcoming exists in explaining the behavior of overrewarded subjects.

Reduction of emotional arousal. A more viable explanation for the subjects' trans-relational behavior is that they were merely attempting to reduce guilt or anger. However, this constitutes an alternative explanation only if subjects also indicated that they were

uninfluenced by trans-relational equity consideration. Subjects were asked to what extent their behavior was influenced by the previous decision making them feel angry or guilty. Since only underrewarded subjects with Low or No Accountability should have been angry, one contrast comparing these two cells with the remaining seven cells was computed. The contrast was highly significant ($p < .01$). A contrast was also computed for overrewarded subjects with Low or No Accountability versus the remaining cells ($p < .01$). Thus, we find that subjects in the four cells with trans-relational behavior indicated that their behavior was heavily influenced by the affective state induced by the previous reward.

Equity with the world. We, of course, assumed that subjects behaved as they did because of their strong desire to maintain equity with the world. We attempted to assess the plausibility of our interpretation by asking subjects two questions: "To what extent were you trying to square things with the world by your decision?" and "To what extent did your decision make your standing with others in general fair?" We combined these two items into an "Equity with the World" scale. Subjects who were inequitably treated and who did *not* expect to be held accountable for their actions (i.e., those in the No and Low Accountability conditions) were far more likely to attribute their actions to a desire to restore equity with the world than were subjects in the five control conditions. The appropriate contrast was highly significant ($F = 23.88$, $df = 8/126$, $p < .001$). However, as Table 3 indicates, the \$1-Low Accountability subjects scored higher than the \$1-No Accountability subjects on this scale. We can offer no explanation for this surprising result.

TABLE 3

"Equity with the World" Scale

Accountability in Situation 2	Reward in Situation One		
	\$1*	\$1.50	\$2
High	5.60	3.87	4.53
Low	7.53	4.40	5.47
None	6.53	4.41	6.13

*The higher the score, the more insistent the subject is that she behaved as she did in order to restore equity with the world.

In summary, inequitably rewarded subjects in Low and No Accountability conditions, indicated that they did not simply imitate their first partner's behavior. These subjects maintained that their behavior was more influenced by their affective state and their attempt "to make things more fair in general." The most plausible explanation for our data thus seems to be that EwW motives are mediated by the affective states of guilt and anger.

SUMMARY

The data can be interpreted as: (1) demonstrating that inequity produces distress which gives rise to equity restoring behavior; (2) validating the utility of the EwW construct by placing it in juxtaposition with competing explanations of trans-relational normative behavior; and (3) showing that people not only respond sympathetically to EwW behavior on the part of others (e.g., Austin and Walster, 1974b), but actually engage in EwW behavior as well. At the very least, this research constitutes a "first step" on the sequential effects of inequity. Our data further suggest that equity researchers should be aware that individuals do not treat their various relationships as isolated from one another. Rather, the equitableness of past outcomes provide us with a frame of reference to evaluate the fairness of present outcomes. Future researchers are thus advised to control for the amount of equity present in previous encounters and the saliency of these trans-relational comparisons.

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